PARENTAL DECISION MAKING PROCESS AND PERCEPTIONS OF OUTDOOR
PURSUIT FACILITATORS FOR THEIR CHILD WITH DISABILITIES

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PARENTAL DECISION MAKING PROCESS AND PERCEPTIONS OF OUTDOOR PURSUIT FACILITATORS FOR THEIR CHILD WITH DISABILITIES

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We recommend acceptance of this thesis in partial fulfillment of the candidate’s requirements for the degree of Master of Science in Exercise and Sports Science-Physical Education Teaching-Adapted Physical Education Teaching Concentration.

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ABSTRACT

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In striving to reach the World Health Organization’s definition of health, physical activity (PA) that influences the mental and social aspects of health should be employed. One of the most efficient ways we can achieve all of this at once is through outdoor pursuits (OP). When we look at children with disabilities, we find that they engage in outdoor activities less than their typically developing peers. Because parents and guardians are the primary decision-makers for their child with disabilities, it is prudent to understand what they see as facilitators to their child’s active participation in OP, and how they go about making the decision to include their child in OP. Employing the Theory of Planned Behavior, this study utilized semi structured interviews with 11 parents of children with disabilities to gain insight as to what these parents viewed as facilitators to their child's participation in OPs, and what fuels their decision-making process in this matter. Results indicated 3 major themes: a) parents perceive participation in OP as a means to promote growth in all domains for the CWD, b) there is a strong value of PA within the family and the community the family is a part of, and c) parent’s positive perceptions of OP adapted programming facilitated child’s involvement in OP.
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INTRODUCTION

Ample research has confirmed that physical activity (PA) is beneficial for overall wellbeing and has immense benefits in the areas of physical, physiological, and social health (Columna, 2019). The World Health Organization (WHO) defines health as “...a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 2006). In order to get to this magnitude of health, one must be well-rounded, taking care of all aspects of oneself to achieve an optimal state of being. PA plays a crucial role in achieving this definition of health (Berkey et al., 2003; Fedewa & Ahn, 2011; National Association for Sport and Physical Education & American Heart Association, 2006; Phillips, 2018). Luckily, there are almost unlimited modalities in which we can be physically active.

In striving to reach the WHO’s definition of health, PA that also influences the mental and social aspects of health should be employed. One of the most efficient ways we can achieve all of this at once is through OP (Barton et al., 2016; Pretty et al., 2006). Exercising in outdoor settings improves psychological well-being by enhancing mood and self-esteem and by reducing feelings of anger, confusion, anxiety, depression, arousal, stress, and tension in a way that traditional PA in an indoor setting would not facilitate (Andre et al., 2017). OP take place in natural environments and involve skills requiring a person to ambulate or move through diverse terrain from one place to another (Steffen & Stiehl, 2010). Examples include rock climbing, mountain biking, hiking, canoeing, camping, backpacking, skiing, snowshoeing, trail running, geocaching, and a plethora of others (Davis & Felix, 2013).
People who participate in OP are more likely to be in good health, and people in good health are more likely to participate in OP (Payne et al., 2005). With this being the case, it is important that people of all abilities have access to a multitude of OP as they aim to be their healthiest selves.

In the National Survey on Recreational and the Environment (Cordell, 1999), it was found that people with disabilities ages 16 and older participated in OP at a rate equal to, or in some cases, exceeding those without disabilities, depending on the specific pursuit being looked at (McAvoy et al., 2006). People with disabilities participate in OP for reasons in addition to bettering their health as well. A study conducted by Nicola Burns (2009) found that participants with disabilities engaged with the outdoors to experience the terrain and the elements as a way of seeking solace, enhancing their wellbeing, and also as a means of socializing, partaking in extreme sports, and expressing their sense of self.

When we narrow the scope of focus to children (ages 6-17) with disabilities, we find that they engage in outdoor activities less than their typically developing peers (Sterman et al., 2016). To understand why this is, there is a need to understand the perceptions that parents and guardians of children with disabilities have regarding their child’s participation in OP. Because parents and guardians are the primary decision-makers for their child with disabilities, it is prudent to understand what they see as facilitators to their child’s active participation in OP. Much has been studied about the perceived barriers parents have regarding PA for their child with disabilities, but little research has been conducted on the perceived facilitator’s parents have regarding PA (Columna et al., 2019), and little to no research has been conducted regarding OP
facilitators specifically. Thus, this study will aim to understand what parents perceive as being facilitators for their child with disabilities participation in OP.
LITERATURE REVIEW

Theoretical Framework for the Study

Using a theoretical framework as the foundation for research allows the researcher to view the data collected through a specific viewpoint and can aid in limiting the scope of relevant data (University of Southern California, 2021). Because the research question is focused on the parental perception of OP, a theory that focuses on the environment in which these perceptions are formed was deemed to be the most appropriate. After researching multiple theories, the framework selected for this study was The Theory of Planned Behavior (TPB). The TPB is a theory that aims to “predict and explain human behavior in specific contexts” (Ajzen, 1991). TPB was chosen because it focuses on the intention to perform a given behavior. “Intentions are assumed to capture the motivational factors that influence a behavior that are indications of how hard people are willing to try, or how much of an effort they are planning to exert, in order to perform the behavior” (Ajzen, 1991). This theory also considers time, money, skill sets, and the cooperation of others into the behavioral decision-making process. More specifically, intention is an important aspect of this theory because it has been identified as being a critical aspect of decision making.

TPB focuses on three main presuppositions based on three belief-based constructs (Hamilton et al., 2020); 1) attitude towards the behavior in question, 2) Subjective norms that stem from the community the subject is a part of, and 3) behavioral control, which is how confident the subject is in their ability to perform the behavior in question. TPB has
been used extensively in studying health behaviors in the public. More specifically to this study, the TPB has been used to assess parental behaviors and decision-making processes as it pertains to their child's health.

In a meta-analysis conducted by Hamilton et al. (2020), it was found that the TPB was indeed an accurate tool to use when trying to predict decisions parents made pertaining to their child health. In this study, the research team scoured 5 electronic data bases for studies that used TPB as the grounds for parental decision making for their child's health. Studies were included if the children of the parents were 12 years old or younger, and “the study reported at least one effect size between a measure or manipulation of one construct from the theory of planned behavior, including measures of planning, and a measure of intention or behavior in the context of parent-for-child health behaviors” (Hamilton et al., 2020). Initially, 4,545 studies were identified. After screening, 46 studies were kept and analyzed for the study. After the analysis, it was concluded that “results supported theory predictions with attitudes, subjective norms, and perceived behavioral control predicting parent-for-child health behavior participation mediated by intention. Perceived behavioral control and planning also directly predicted behavior and planning partially mediated effects of intention on behavior” (Hamilton et al., 2020).

One such study included within this meta-analysis was titled parental efficiency and role responsibility for assisting in child's healthful behaviors (Ice et al., 2012). In this study, 820 parents responded to a questionnaire after their child participated in a health screener. It was found that parental self-efficacy and decision making within assisting their child's helpful behaviors had a strong association with the child's weight, nutrition,
and physical activity. This study advised school health interventionists and clinicians to target basic psychological motivators to improve parental involvement in the realm of their child's health.

Because the current study is focused on what parents perceive to be facilitators to their child with a disability’s participation in OP, and the TPB aims to outline how perceptions, and ultimately behaviors are formed.

**General Physical Activity for All**

It is generally accepted that PA is beneficial for overall wellbeing and has immense benefits in the areas of physical, physiological, and social health (Columna, 2019). PA is appropriate and necessary for humans of all ages and their ability to achieve and maintain this definition of optimal health, which WHO defines health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 2006).

In the United States, the current PA guidelines for children (ages 6 - 17), is that participate in moderate to vigorous physical activity (MVPA) for 60 minutes a day, which includes activities that are aerobically stimulating, muscle strengthening, and bone-building (U.S Department of Health and Human Services, 2018). When the information provided by a multitude of data collecting agencies such as the American Community Survey, American Time Use Survey, Behavioral Risk Factor Surveillance Survey, and the National Health and Nutrition Examination Survey, to name a few, it was found that both adults and children in the U.S are not meeting PA guidelines (Katzmarzyk et al., 2017).
Data shows that only 27.1% of children ages 6-14 meet the 60-minute daily guideline (CDC, 2019). A higher proportion of males (36%) were shown to meet the criteria than females (17%). As students progress through their high school years, there is a steady decrease in the amount that the guidelines are met. In 9th grade, there was a 32% adherence, that fell to 28% for the 10th-grade year, 26% for the 11th, and finally, 24% in their senior year (Troiano et al., 2007). In six separate studies summarized by Janssen & LeBlanc (2010), looking at the correlation between PA and depression in school-aged children, it was found that students who participated in an 8-12 week exercise program reported all having an improvement in at least one of their depression symptoms upon completion.

Worldwide, physical inactivity causes 6% of coronary heart disease, 7% of type 2 diabetes, 10% of breast cancer, and 10% of colon cancer. Because of this, physical inactivity causes 9% (range of 5.1% - 12.5%) of premature deaths a year. If inactivity was decreased by even 10%, it is expected that it would save 533,000 lives per year (Lee et al., 2012).

When humans are inactive, adverse health effects are well documented. From causing illness to death, the need to be physically active is apparent. The benefits associated with adequate PA span farther than just warding off illness. PA has been shown to decrease overall inflammation within the body and improve systemic blood pressure. It also has been shown to increase bone density in all ages (Fletcher et al., 2018). PA also has a benefit for cognition, especially for children. Students who participated in PA prior to a cognitive exam were shown to have an improvement to that of the control group who had not participated in PA prior to their exam. The results
recorded from the group who had PA improved by half of a standard deviation over that of the non-PA control group (Sibley & Etnier, 2003).

**Disability and Physical Activity for Adults**

PA is good for stopping poor health effects and improving good health. This is true for all persons regardless of physical ambulatory ability, or cognitive prowess (Columna et al., 2019). Those with a disability stand to gain a greater benefit from an active lifestyle. Not only does it reduce the risk of secondary health problems, but PA also increases all aspects of functioning (Van der Ploeg et al., 2004).

According to the CDC, there are 61 million adults in the United States living with some type of disability, which equates to 1 in 4 people. Those with a disability are more likely to be obese (38.2% compared to 26.2% of non-disabled adults), smoke (28.2% compared to 13.4% of non-disabled adults), have heart disease (11.5% compared to 3.8% of non-disabled adults), and have diabetes (16.3% compared to 7.2% of non-disabled adults). Of those 61 million, 13.7% have a disability that impacts their ability to be mobile which is defined by serious difficulty walking or climbing stairs. 10.8% have a cognitive disability which is defined by a serious difficulty concentrating, remembering, or making a decision (CDC, 2020). 47.7% of adults with disabilities report not engaging in leisure physical activity compared to 32.8% of typically developed adults (Blauwet, 2019). The CDC reports that half of all adults with disabilities get no aerobic activity at all (CDC, 2018) which is a key metric in staving off secondary health issues as previously explored.
Children with Disabilities Stats on Disability Type and Prevalence

The National Center for Health Statistics reported that the prevalence of children aged 3-17 who had a developmental disability in 2016 was 6.77% (Zablotsky & Blumberg, 2017). These are disabilities such as Autism Spectrum Disorder (ASD), Intellectual Disabilities, and other developmental delays. While children ages 5-17 reported a 0.6% prevalence of an ambulatory (physical) disability in the same year. Children ages 0-17 recorded a hearing disability at a 1.1% prevalence rate, and visual disability among children ages 0-17 was reported at a 1.3% prevalence rate (Kraus et al., 2018). The prevalence of children with emotional and/or behavioral deficits (EBD) are estimated to be between 9% and 16% (Boon et al., 2020; Forness et al., 2012). The Individuals with Disabilities Education Act (IDEA) defines EBD as a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance: an inability to learn that cannot be explained by intellectual, sensory, or health factors. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. Inappropriate types of behavior or feelings under normal circumstances. A general pervasive mood of unhappiness or depression. A tendency to develop physical symptoms or fears associated with personal or school problems (IDEA, 2004).

Children with Disabilities and Physical Activity Habits

Children with Disabilities (CWD) are prescribed the same PA guidelines as their typically developing peers (60 minutes of MVPA a day). In a study with 278 CWD, 20.3% recorded less than 10 minutes of MVPA per day and were designated as physically inactive, 47.5% reported an insufficient amount is MVPA per day (less than
60 minutes of MVPA per day), and 32.2% reported a sufficient amount of MVPA per day (Kim et. al., 2013). This lack of PA results in an obesity rate of 20% in CWD ages 10-17 compared to 15% of nondisabled peers in the same age range (CDC, 2019).

**Children with Autism Spectrum Disorder and Physical Activity**

In a 2012 study comparing children (3-11 years old) with autism spectrum disorder (ASD) to their typically developing peers, it was found that they participate in PA at around the same rate (50 minutes a day for children with ASD / 57 minutes a day for typically developing peers). However, parents of children with ASD reported their children participate in fewer types of PA compared to their peers (6.9 types of PA vs 9.6 types of PA). This study conducted by Bandini et. at., asked parents to complete a physical activity checklist of the activities their child took part in the previous year and how much time they estimated their child spent on that activity in hours. They provided a list of 17 activities and a box to check the number of hours their child participated in that activity that ranged from “not at all last year” to “more than 40 hours.” Fifty-three families with a child with ASD, and 58 families of a typically developing (TD) child complete the checklist. The average age of the TD was 6.7 years old and the average age of the child with ASD was 6.6 years old. When the check lists were returned, the results stated that TD children participated in 9.6 different activities on average in a year for a total of 225 hours. Comparatively, children with ASD participated in 6.9 activities for a total of 158 hours (Bandini et al., 2012).

**Children with Emotional Behavioral Disturbance and Physical Activity**

Within the scope of emotional and behavioral disorders are attention deficit hyperactivity disorder (ADHD) which makes up 11% of EBD cases, behavioral or
conduct disorder which makes up 3.5%, anxiety disorder (3%) and mood disorder (2.1%) (Merikangas et al., 2010). Children growing up with an EDB regularly experience negative developmental outcomes in the domains of behavioral outcomes, executive functioning, academic performance, and neurological functions. Children with EBD also are at an increased risk of becoming obese and, developing type 2 diabetes, and having poor aerobic fitness. Due to the early age onset, and the lasting effects of EBD, new strategies for management of these disorders are being explored. One such treatment being heavily investigated is PA. Due to the numerous psychological and physiological benefits associated with an active lifestyle, PA is being looked at as a lifelong treatment option that is not predicated on pharmacological resources. But, for this to be a viable treatment option, those with EBD must actively engage in PA (Ash et al., 2017; McLaughlin et al., 2012).

A 2014 study looked at 566 adolescents (13-18 years old) with an EBD who took a survey to understand their current PA habits. This data was compared to the same survey taken by 8,173 adolescents without an EBD in the same age range. The survey asked how many days, apart from the activities you engage in during school, do you play or exercise to the point of breathing heavily? And, apart from the school day, how many hours a week do you play or exercise to the point of breathing heavy? After the data was collected, the results showed that adolescents with an EBD recorded 3 times less physical activity than their same aged peers without an EDB. The data also showed that those with a mood disorder were the most inactive among the sample group (Mangerud et al., 2014).

As stated, ADHD is the most prevalent subsect of EBD accounting for 11% of all EBD diagnosis. A 2014 study done by Pontidex et al., looked at how using PA as a
treatment for children with ADHD as an aid to education and concentration. A case study was done on a 13-year-old boy who was diagnosed with ADHD. Whenever he felt like he was exhibiting disruptive behavior, he self-prescribed a short burst of MVPA (5-15 min). Upon completion, the student was observed to be more attentive and better responded to directions. This case study is an example of using single bout PA to help with ADHD (Pontifex et al., 2014).

Gapin and Etnier (2010) looked at the effects of more consistent PA on eighteen 10 year old boys with ADHD. The boys all took an executive functions task (the Tower of London planning task) at the start of the investigation. The boys were then fitted with an accelerometer and measured their daily activity levels, and more specifically, how many minutes per day the boys were in the MVPA level. When the boys had higher levels of MVPA in a day, they recorded high scores on the assessment.

Children with Visual Impairment and Physical Activity

Children who suffer from visual impairments (VI), like other children with disabilities show lesser levels of PA than their same age non-disabled peers (Aslan et al., 2012; Lieberman et al., 2010). Greguo et al. (2015) conducted a study to see what affected children with VI participation in PA. They gathered 22 children with VI and one of their parents. The study consisted of two age groups. Group one had the kids that were 8-10 years old, and group two consisted of those 11-14 years old. In these two groups there were children who were categorized as having low vision (n = 16) and those who were categorized as blind (n = 6). To understand the children's level of PA, they were given a seven-day recall instrument that asked the children to record, in the last seven
days, how much MVPA they participated in. Also, they were asked to rate how supportive they perceived their parents to be of their involvement in PA. The parent completed the Baecke Questionnaire (Baecke & Frijters, 1982), which was also a seven-day recall instrument pertaining to MVPA. The parents were also asked to rate on a Likert scale how much they valued PA and how much they feel they support their child in participating in PA.

The results showed that those children who were categorized as blind participated in less PA overall than did the children with low vision. The students who were blind recorded a lower feeling of parental support then the low vision children. There was also an observed correlation between the parents reported value of PA for themself and the amount their child felt supported. The more the parent felt PA was important for themself, the more supported their child felt in participating in MVPA. This led the researchers to the conclusion that parental support greatly influences their child with VI to participate in MVPA more frequently (Greguol et al., 2015).

**Children with Ambulatory Disability and Physical Activity**

While it is difficult for typically developing young people to develop and maintain a physically active lifestyle, it is even more difficult for young wheelchair-users with disabilities to do the same (Bloeman et. al., 2020). Children with disabilities that affect their ability to be mobile on their own are classified as having an ambulatory disability. One such disability is Cerebral Palsy (CP). Of children with CP, 48%-79% have some ambulatory ability (Stanley & Blair, 2000). A 2007 study conducted by Bjornson et al., looking at the PA habits and ability of 81 children (10-13 years old) with
CP compared to 30 age matched typically developing peers showed the children with CP recorded 2,517 less steps per day than their peers. In addition to this difference, the study also showed that children with CP were significantly less active throughout the day than their peers. To measure this, the researchers had all students participating in the study wear a pedometer for seven consecutive days. The data for activity between 6:00 a.m and 10:00 p.m was analyzed, and the following results were recorded. Children with CP showed activity for 40% of their day, whereas their typically developing peers recorded activity for 50% of their day (Bjornson et al., 2007). With CP, there are levels of severity that play a role on how active one can be. To measure these levels, the Gross Motor Function Classification System (GMFCS) is implemented. This scale ranges from 1 (walking with minor disability) to 5 (transported by a wheelchair). The Bjornson study suggests that as the child increases on the GMFCS, their level of PA decreases.

Another ambulatory disability is Spina Bifida. Like CP, Spina Bifida is a birth defect that can impede one's ability to be independently mobile and can require a wheelchair for mobility. Similarly, to CP, a scale called the Hoffer Classification is used to classify the individuals ambulatory ability. This scale ranges from 1 (normal ambulatory ability) to 5 (non-ambulatory) (Schoenmakers et al., 2004). In a 2020 study executed by Bloeman et al. (2020) levels of PA in children ages 5-19 with Spina Bifida were examined. The study found that as children with Spina Bifida got older, they became less active. To gather the necessary data for this study, the researchers had children on all levels of the Hoffer classification, wear activity monitors for two school days and one weekend day. The activity monitors detected types and vigor of PA the child participated in throughout the study period. To be included in the final calculations,
the wearer had to have eight hours of uninterrupted monitoring. Upon completion, there were 36 usable data sets. The results of this study showed that time active was dictated by age of the participant and their position on the Hoffer Classification. The younger the participant the more PA they recorded and the lower they were on the Hoffer Classification the more active they were (Bloeman et al., 2020).

Due to the prevalence of inactivity in able bodied and disabled persons alike, the need for an accessible, enjoyable, and beneficial means of PA that can improve multiple markers of physical, mental and social health is necessary. Participating in OP is beneficial for all domains of a person's health (Barton et al., 2016; Dorsch et al., 2016; Pretty et al., 2006) and should especially be looked at as an option for those with disabilities.

**Outdoor Pursuits Definition and Overview**

Exercising in outdoor settings improves psychological well-being by enhancing mood and self-esteem and by reducing feelings of anger, confusion, anxiety, depression, arousal, stress, and tension in a way that traditional PA in an indoor setting would not facilitate (Andre et al., 2017). OP take place in natural environments and involve skills requiring a person to ambulate or move through diverse terrain from one place to another (Steffen & Stiehl, 2010), with examples such as rock climbing, mountain biking, hiking, canoeing, camping, backpacking, skiing, snowshoeing, trail running, geocaching, and a plethora of others (Davis & Felix, 2013).
Outdoor Pursuits Participation Statistics

The Outdoor Foundation, a subsidy of the Outdoor Industry Association based in Boulder Colorado, publishes a report every year depicting the statistics and other data regarding America's outdoor use from the previous year. The “Outdoor Participation Report” paints a clear picture of the habits of Americans when it comes to outdoor recreational activities. The most current report at the time of writing (2020) is the 2018 report. The data for the Outdoor Participation Report was gathered by conducting 20,069 interviews of over 1 million people in the US. Once the data was compiled and coded, the final data sets put out in the report had a 95% confidence interval.

The executive summary given at the start of the document states that in 2018, a little more than half of the U.S population participated in an outdoor pursuit at least once during the previous year. Compared to a decade ago, Americans went on 1 billion less outdoor excursions in 2018. Only 17.9% reported outdoor recreation at least once a week, and youth outings in the outdoors saw a decline of 1.4% over the past three years. There was, however, an increase of 5.7 million outdoor participants from 2017, and 2018 saw 1.7% increase in the number of women getting involved in the outdoors. There were 98 million moderate outdoor users as defined by the study as those who spent at least 10 days of the year outdoors. This population makes up 33.2% of the total user group. The number of moderate users has fallen almost 2% from 2008 to 2018. When the participant profile is examined, some interesting themes come to light. 63.5% have at least some college level education, the average age of outdoor participants was 36.2 years old, and a majority of the users reported a higher-than-average household income. 17% of users said they only had to step outside their door to access some form of outdoor recreation, while
9.7% said they had traveled more than 50 miles to gain access. When the types of OP Americans are participating in are examined, five stand out. Running, jogging and trail running is at the top of the list with 19.2% of the US population reporting participation in this category. Next is fishing, with 16.4% or 49.4 million people. Road Biking, or Mountain Biking, and hiking account for 15.9% of outdoor users. Lastly, 41.7 million people went camping in 2018. Children ages 6-17 reported, on average, 76.6 days outside per year with male adolescents (13-17 years old) having the highest participation percentage at 67.2% of the demographic engaging in outdoor play. The most popular OP for children ages 6-17 were (in order of popularity) mountain biking (24.6% of the demographic), fishing (21.8%), running, jogging and trail running (21.5%), Camping (20.5%), and hiking (16.1%) (The Outdoor Foundation, 2018).

Outdoor Pursuits Benefits for all People

PA and exposure to nature are independently known to have a positive effect on a person's mental and physical health. In wanting to understand this idea further, Jules Pretty et al. (2006), conducted a study to determine the relationships between mental and physical health outcomes of exercise that took place in nature. To test this, they conducted an experiment including 5 groups of 20 subjects. The test subjects would be on a treadmill and the researchers would project images onto the wall. The images were grouped into 4 categories: Rural pleasant, rural unpleasant, urban pleasant, and urban unpleasant. The control group only exercised on the treadmill and were shown no images. To measure the effects, or lack of effects of the images, the researchers measured blood pressure and took two forms of psychological measurements (self-esteem and mood) before and after the exercise. The results of the study showed that those who were
exposed to any image associated with being outside resulted in a decrease in blood pressure, and a marked increase in both mood and self-esteem (Pretty et al., 2006).

Another study conducted by Andre et al. (2017) reviewed literature pertaining to the association between college campuses that offered programs offering OP to their students and the benefits gleaned by those who participated in them. One hundred and sixty-one articles were reviewed in this study. The main themes that emerged upon completion of the review were improvements in health and wellness, social and interpersonal skills, an increased view and appreciation of the natural environment, and increased academic and employment outcomes.

The health and wellness outcomes reported included an increase in self-esteem, reduced feeling of anger, confusion, anxiety, depression, stress, and tension in the psychological category (Aspinall et al., 2013; Barton et al., 2009; Bodin & Hartig, 2003). In addition to these benefits, it was found that for those who participated in OP in college, it was an accurate predictor for if a student would prioritize physical fitness in the years after graduation (Forrester et al., 2006). In addition to all the immediate physical health benefits associated with PA, the social and interpersonal benefits included a reduction in social anxiety and an increase of friends on campus. Lastly, participation in OP are associated with a better subjective overall health perception, and a better physical quality of life (Crane et al., 2014; Puett et al., 2014).

In an age that increasingly finds children indoors and looking at screens nearly eight hours per day (Kaiser Family Foundation, 2010), the benefits associated with children being in nature seem to be forgotten. The National Wildlife Federation (2010) surveyed 1,878 teachers regarding their view of how outdoor play affects their students.
83% of teachers thought that outdoor play was a necessity to counterbalance the significant time spent indoors in front of electronics. Seventy eight percent of the teachers thought that their students who spent regular time in outdoor play were better able to concentrate and performed better in the classroom, and 75% of teachers thought that their students who spend the most time outdoors were more creative and were better problem solvers (National Wildlife Federation, 2010).

Furthermore, though this next study was published in 1998 by Lieberman and Hoody, it is one of the landmark works in the field. Compiling data from 40 schools that were implementing environmental based instruction into their curriculum, they recorded interviews with 400 students, 250 teachers and administrators, and administered four different surveys to the same population. The students who were participating in the outdoor based curriculum were compared to their peers in the same school who were following the traditional curriculum. The environmental aspect of the curriculum was simply moving their classrooms to an outdoor learning space in most cases. The results of the study showed those students who participated in the environmental education curriculum had an increased academic performance in language arts (76%), social studies (73%), science (64%) and math (63%) over their peers (Lieberman & Hoody, 1998). All this to show the cognitive benefits associated with children being in natural environments.

**Outdoor Pursuits and People with Disabilities**

The number of individuals participating in OP has been on the rise since the passing of the Americans with Disabilities Act, in 1990. This act sought to help facilitate Americans with disabilities participation, with as much ease as possible, in the things
those without disabilities took for granted. This law helps to ensure paved walkways in federally managed wildlife areas, along with other means of accessibility such as ramps, designated parking locations, modified water fountains and a plethora of others. People with disabilities use natural spaces to recreate just as typically developing individuals. In fact, it was found that people with disabilities ages 16 and older participated in OP at a rate equal to, or in some cases, exceeding those without disabilities, depending on the specific pursuit being looked at (McAvoy et al., 2006). People with disabilities participate in OP for reasons in addition to bettering their health as well. A study conducted found that participants with disabilities engaged with the outdoors to experience the terrain and the elements as a way of seeking solace, enhancing their wellbeing, and also as a means of socializing, partaking in extreme sports, and expressing their sense of self (Burns et al., 2009).

**Outdoor Pursuits and Children with Disabilities**

Similarly, to general PA, CWD participate less in outdoor activities than their same aged typically developing peers (Sterman et al., 2016). When CWD do participate in outdoor activities, it tends to be adult centric. Meaning adults are making all the decisions regarding the level of participating their child engages in, the type of pursuit they engage in, for how long and the frequency at which they child gets to partake in the pursuit (Must et al., 2015). A systematic review of the available literature on the topic was conducted by Sternman et al. in 2016. Using the parameters of articles written in 1990-2015, they sifted through 763 articles and after eliminating duplicates, completing eligibility screenings, and looking specifically for qualitative studies, they whittled the number of articles down to 11. The focus of this study was to try and gain an
understanding of the thought process caretakers of children with disabilities use when affording their children outdoor play. In all 11 studies, the caretakers cited outdoor play as important for their child's overall development in the cognitive, social, communicative, physical and emotional domains (Mactavish & Schleien, 1998; Mactavish & Schleien, 2004; Ökcün & Akçin, 2012; von Benzon, 2010). Some caretakers sighted strengthening the family though OP as their main motivation for participation. More reasons for participating were listed as: a time to give their child positive attention in an informal setting which improved communication between the caregiver and the child (Mactavish & Schleien, 1998), hoping their child would be better accepted by typically developing peers in an outdoor setting (Mactavish & Schleien, 2004; Ripat & Becker, 2012; Thompson & Emira, 2011), and an opportunity for their child to build self-confidence and self-determination. In making decisions for their child's participation in outdoor play, parents need to have an understanding for their child's level of proficiency in social settings, but also in an outdoor setting and the level of monitoring the child needs. Parents also cited their own lack of understanding regarding opportunities for OP as a factor in their ability to make informed decisions about their child’s participation in outdoor play, and specifically regarding unstructured outdoor play (Bloemen et al., 2015; Downs et al., 2013; Mactavish & Schleien, 1998, 2004; Ökcün & Akçin, 2012; Prellwitz & Tamm, 1999; Ripat & Becker, 2012; Thompson & Emira, 2011).

Another aspect of OP and CWD are programs designed to meet the unique needs of those with disabilities. Common Ground located in the American Mountain West, is one such program. The aim of this program is to improve the lives of individuals with disabilities through outdoor recreation. A 2016 qualitative study conducted by Dorsch et
al., to try and understand what effects the program was having on the participants. The study used semi-structured focus groups to gather data and then used open and axial coding to develop themes based on the data from the focus groups. Upon completion of the data analysis, 3 main themes were found: a) participants perceived some social barriers to participating in physical activity, b) however, through the enactment of its mission, Common Ground provided a way for individuals with disabilities to overcome those barriers, and c) participants perceived intra- and interpersonal benefits to program participation. This study showed that when implemented correctly, a well-run program can be a facilitator to CWD in OP.

**Parental Perceptions of PA Facilitators for their Child with Disabilities**

Because parents are so involved in the decision-making process regarding their child's participation in OP, and the verified benefits associated with OP, it is important for those who deal in the health and physical education of this population to understand what parents of this population perceive as facilitators to OP for their child. Columna (2019) speaks to this need to expand the literature regarding facilitators to PA. He stated, “clearly, it is important to understand the barriers faced by parents of youth with disabilities to promoting their child’s PA. However, research that identifies facilitators to PA is relatively scarce” (Columna et al., 2019, p. 8).

A 2017 piece authored by Alesi and Pepi investigated parental beliefs regarding PA for their child with Down syndrome. The researchers used semi structured interviews with 13 parents of young people with Down syndrome. Through these interviews, three facilitation themes emerged: a) family support, meaning the child with Down syndrome was more active if the family supported activity, b) the availability of adapted physical
activity instructors who could meet the unique needs of the child, and c) the inherent
challenging nature of PA. The conclusions drawn from this study showed that the family
plays a crucial role in the initiation of PA, but then relies heavily on a professional to

A 2011 article by Columna et al. focusing on immigrant Hispanic families with a
child with disabilities living in North Texas and the physical recreation habits of that
child. Columna et al. (2011) conducted 10 interviews with 12 parents that met the criteria
of the study. The interview questions were geared toward understanding the facilitators
and constraints of PA for their child. Again, three themes emerged from these interviews.
The first theme citing that the families saw PA as being beneficial for the whole family
and the PA itself was a facilitator in bettering family dynamics. Theme two then went in
the opposite direction stating that while PA is beneficial for the whole family, the ability
to be physically active is constrained by other priorities, finances, and a lack of skills to
make modifications for their child. Lastly, theme three was cited as administrative
constraints such as a lack of programs, facilities, and trained staff (Columna et al., 2011).

An article by Barr and Shields published in 2011 regarding children with Down
syndrome and the barriers and facilitators for PA executed 18 interviews from 20 parents
of children with Down syndrome between the ages of 2 and 17 years were conducted.
Upon completion of these interviews, the data was transcribed, independently coded, and
analyzed by two researchers using thematic analysis. This study yielded four themes from
the data. Theme one noted the importance of the support of the family regarding PA for
the child with Down syndrome. Theme two cited seeing PA as an opportunity for social
interaction for their CWD. Three, spoke highly of the impact structured, accessible
programming that made adaptations for their child. And four, cited the challenge and character-building aspect of PA as a facilitator for their child (Barr & Shields, 2011).

In a dissertation by Bomjin Lee in 2004, he created a table of both how parents think their CWD will benefit from PA, and what parents see as the main barriers to PA for their child. Lee surveyed 193 parents of children with disabilities and according to them, the three main reasons they wanted to include their child in PA was to form a better self-concept, improve social skills, and improve self-confidence. Parents also stated PA was a means of interacting with friends, improving cardio health and being independent as other top reasons for including their child in PA. When it came to what parents saw as barriers to their child's participation in PA, parents sighted availability of programming as the number one barrier. After this, match of program activates to child's interest, and qualifications of staff to work with people with disabilities were the next two barriers. The parents also sighted lack of transportation and participation of child's friends in the program as other barriers.

And finally, a 2013 conducted by Shimmell et al. work that looks at what motivates children with CP to be active. Seventeen children ages 10-18 and their parents participated in a focus group and gave individual testimony in one-on-one interviews. Similarly, to the Barr and Shields study, the data collected produced four themes. The first theme pertained to environmental and personal factors. These were factors that the subjects spoke most frequently about. These could be both positive or negative in nature, meaning, the factor in question could be a facilitator for one individual or a barrier for another. These were things like how involved their parents were in the activity they were participating in. Theme number two was regarding limitations due to impairments in
body structure and function. For the children with CP to engage in PA, they often have to travel a long distance to get to an adequate facility and once there, they had to transfer into adaptive equipment that would allow for them to participate in the activity. Because of this, many students reported being tired before the activity even began. Theme three was the fact that perceived health benefits alone are not what motivated the kids to be physically active. Contrary to many peoples' rationale for being active, it was found that children with CP engaged in PA mainly to have fun, gain freedom, to spend time with friends, to learn a new skill, to reach personal goals, and lastly, to do something good for the body. Lastly, theme four was expressed to be a gratitude for variation in activities and delivery methods. Some children enjoyed when the activities were competitive in nature, while others did not. A range of provided activities was a facilitator to the kids and their families (Shimmell et al., 2013).

**Summary and Conclusion**

Within this review, the rationale for why PA is a crucial aspect of health for all ages and ability levels has been given. Recommendations for PA levels made by the governing health bodies such as the CDC and the American Heart Associates have been examined for all age demographics. The current PA statistics for children have been reviewed and the effects that these statistics have on the current health of the current population have been given. The PA activity habits of able-bodied individuals, as well as, the PA habits of people with disabilities have been established. The health benefits specifically pertaining to those with disabilities has been covered in depth, providing examples for a wide range of disability types. The need for all people to increase their levels of PA was shown for both physical and psychological reasons. Research
showcased that participation in OP was an efficient way to gain the benefits of PA while also gaining benefits that come along with being in an outdoor environment. The definition and overview of what constitutes as an outdoor pursuit was explored. The current statistics for the US and its populations participation in OP was given in detail for all ages and ability and disability levels. The evidence for the health-related benefits of outdoor pursuit was listed and expressed through data found in 10 separate articles spanning 19 years of research. The benefits OP provide for adults and children with disabilities specifically was conveyed. Finally, research surrounding parental perceptions of facilitators to PA for their child with a disability was compiled and analyzed. From this analysis, it was found that there is a lack of literature regarding what parents of children with disabilities see as facilitators to physical activity. A facilitator is defined as “a person or thing that makes an action or process easy or easier” (Oxford, 2020). A review of the available literature regarding parental perception of PA facilitators for their CWD was conducted. There were only four articles found that spoke directly to this quarry. Because parents are so involved in the decision-making process regarding their child's participation in OP, and the verified benefits associated with OP, it is important for those who deal in the health and physical education of this population to understand what parents of this population perceive as facilitators to OP for their child. In the four articles analyzed, there was no mention of OP. The need for expanding literature regarding facilitators for PA in CWD is apparent, but the need to focus specifically on facilitators of OP for CWD is great. Thus, this study will aim to understand what parents perceive as being facilitators for their child with disabilities participation in OP.
METHODOLOGY

Because parents are so involved in the decision-making process regarding their child's participation in OP, along with the verified benefits associated with OP (Mactavish & Schleien, 2004; Mactavish & Schleien, 1998; Ökcün & Akçin 2012; von Benzon, 2010), it is important for those who deal in the health and physical education of this population to understand what parents of this population perceive as facilitators to OP for their child. Similarly, to general PA, children with disabilities (CWD) participate less in outdoor activities than their same aged typically developing peers (Sterman et al., 2016). When CWD do participate in outdoor activities, it tends to be adult centric. Meaning, adults are making all the decisions regarding the level of participating their child engages in, the type of pursuit they engage in, for how long and the frequency at which they child gets to partake in the pursuit (Must et al., 2015).

The purpose of this qualitative case study was to understand what parents perceive as being facilitators for their child with disabilities participation in OP through the lens of the Theory of Planned Behavior. The data collected in this study was from the perspective of parents of children with disabilities and was designed to help inform future outdoor pursuit practitioners as well as other parents as to how they can better serve this specific population of children in the outdoors.
A qualitative design was determined to be the best fit for this research question because the desired outcomes of the study dealt with particular social settings, situations, events and group interactions in a specific context (Creswell et al., 2012). In addition, qualitative research is interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences (Merriam, 2009). Due to this, a qualitative approach was deemed most appropriate for this research question.

Because we wanted to understand the phenomenon in its real-life context (Yin, 2008), the use of case study was implemented. In this case study, the subject of inquiry was focused on the facilitator's parents of children with disabilities had experienced in their child's participation in OP. To get the desired data for this study, semi structured interviews were conducted. Every question asked in the interviews was aimed at gaining an understanding of this main question. Twelve questions were asked to guide the interviews and these questions were aligned with the Theory of Planned Behavior.

**Research Methods and Design**

This qualitative research study was conducted due to the lack of research and literature on the topic of PA facilitators for children with disabilities, specifically in the outdoors (Columna et al., 2019). To answer the question of what parents of children with disabilities saw as facilitators to their CWD participation in OP, this case study used one on one interviews as the means of data collection. Interviews were used to understand the perceptions of parents to help inform other parents as well as outdoor programs as to how they can better serve children with disabilities in the outdoors. The interviews were semi
structured to allow for the interviewees to expound on what they felt needed to be expounded on and to be short and concise where needed (Roulston et al., 2010).

Participants and Procedures

After obtaining university institutional review board approval the recruitment process could began. Participants for this study came from western Wisconsin and eastern Minnesota. The 10 interviews conducted consisted of 9 mothers and 2 fathers (for one interview, both the mother and the father sat in). For the most part, all the families interviewed had only one child with a disability (8), but three families told me they have two children with a diagnosed disability. Participants were gathered by using a combination of convenience sampling from parents whose child participated in a Motor Development Program the Adapted Physical Education program at the University of Wisconsin - La Crosse runs (2), and the rest were obtained through chain referral sampling (8). Once the necessary criteria of the participants were met, and permission to contact was acquired, an email was sent to the parents explaining why they were receiving the email, what the study hoped to achieve, how long the interview would take and if they were willing to partake in the study. Along with this initial email, a copy of the 12 question I would ask them was attached for their review. In total, 14 families were reached out to, and only 4 did not respond. Once the families had responded indicating they were interested in participating in the study, they were offered three forms of interview types they could select from. They could choose an in-person interview (1), phone interview (1), or a video call on Zoom or Google meet (8). In the final email they were resent the questions again to ensure they were familiar and comfortable with the
content being talked out, and they were sent the informed consent document to sign and return.

**Data Collection**

Following the informed consent process, data was collected through in-depth semi structured interviews with 11 parents of children with disabilities. These interviews were either conducted in person (1), Over the phone (1), or via a video chat service (8). These interviews lasted between 10 to 35 minutes depending on the amount of detail the parents felt comfortable with sharing. Each of the interviews followed the same semi structured protocol that had set questions to ask but allowed the for the interviewer to deviate and ask additional question if the participant brought up a new idea that pertained to the main idea of the study. Each interview began with an introduction and purpose statement of the study and what the data was hoped to be used for. Along with this, a brief overview of definitions was provided to ensure both parties were on the same page. As per the IRB protocol, all participants signed and returned an informed consent document to the study designers.

The interview questions were designed to gain an understanding as to what real life examples parents of children with disabilities had experienced that helped their child successfully participate in OP. An example of a question like this is “What do you see as being a facilitator or promotor to your child’s participation in outdoor pursuits?” In addition to this, the questions were also designed to formulate an understanding of how these parents perceived outdoor pursuits for their family. An example of a question like this is “how do you feel about your child participating in outdoor pursuits activities?” and “within the community that you and your child typically spend time with, talk to me
about what they do for physical activity and outdoor pursuits?” All interviews were recorded and transcribed via ZOOM transcription service (9) or by hand (1) upon completion for analysis. Additionally, the authors did not have a benchmark of the number of participants; interviews were conducted until there was data saturation and minimal new details were being shared (Guest et al., 2006; Morrow, 2005).

Data Analysis

Once the interviews were complete and transcribed, data analysis could begin. Analysis was based on both inductive and deductive analysis (Patton, 2015) and utilized a multistep approach. The process started with open and axial coding (Guba & Lincoln, 1989) of three transcripts at a time. After each set of transcripts were coded, themes and sub themes were notes as well as differences within the transcript set. Once all the sets were coded, the themes of the last set of transcripts were compared to the themes of the first two sets of transcripts. Once again, themes and sub themes that were pervasive throughout all 10 transcripts were noted as well as differences. Upon completion of this coding step, an overall theme, sub theme and sub-sub theme document was created, and each major theme and sub theme was defined. Using the identified themes and sub themes, a codebook was then created by the research team. The codebook was tested on 30% of the data set to assess its effectiveness and to see if any major themes were missed, known as axial coding. After the codebook was deemed sufficient, it was applied to the entire data set. Due to the inductive nature of the analysis process and constant comparing of data sets to tools formulated by the analysts, adjustments were made as needed along the way to those tools and definitions.
Data Trustworthiness

To ensure trustworthiness, researcher triangulation, debriefing, and negative case analysis were implemented. Researcher triangulation was adapted by having multiple researchers involved in the analysis process, while triangulation was achieved by collecting data from multiple participants pertaining to the same topic of interest. Debriefing was used to help clarify thoughts and to aid in the creation of definitions in a way that would facilitate understanding of the phenomenon being discussed for all who might read the study regardless of their field of study. Negative case analysis was used by extracting data from the transcripts that were counter to the themes as a means of ensuring validity of our themes (Matthes et al., 2017).
RESULTS

The purpose of this study was to gain a better understanding of facilitators that impact parents’ perceptions to enroll their child with a disability in OP activities. Specifically, based on the theory of planned behavior, the results describe factors parents took into consideration when making the decision whether to include their children in OP. The following section outlines three major themes that include, a) participation in OP promotes growth in all domains, b) strong value of PA within the family and the community the family is a part of, and c) parent’s positive perceptions of OP adapted programming facilitated child’s involvement in OP. These themes were uncovered during the analysis process, along with their association sub themes.

A.) Participation in OP Promotes Growth in all Domains
Parents perceive OP as a means of fostering growth in their child's physical, cognitive, affective, and social domains. This theme was found to be the foundational belief the parents needed to hold before seeking out OP for their CWD. Parents sighted multiple examples of how they perceived OP to benefit their child in the physical sense, but also in the social and emotional domains as well in the sub themes that make up theme one.
A. a) Participation in OP Activities Promoted Individuality, Autonomy and Equity for the CWD

When Grace was asked pointedly about how she viewed OP for her CWD, she responded with “I think it's amazing. It’s gotten them [her two sons with autism spectrum disorder] through some good times and hard times.” She went on to describe how outdoor physical activity like trail running and bike riding helped her son on the autism spectrum not only with increasing muscular endurance and cardiovascular strength, but also how participating in the social aspect of running helped him through his high school experience. “Those are his glory days” she said regarding his high school trail running experience. She highlighted that she was “…glad he was able to do that outdoor activity, it helped him because it wasn't like the sound and intensity of a basketball court, it was outdoors, there was still sounds that he had to deal with and people but there's more space.”

Anne expressed how she believed that OP allows her daughter with a genetic disability that results in her being in a wheelchair and mostly non ambulatory, to have autonomy and equality with her siblings and friends.

We went on a vacation a few years ago, and my oldest daughter and my oldest son learned how to water ski. Well, it is always like okay well the oldest girl and the oldest boy learn how to do something and Sarah [has to sit and watch]. But Sarah had learned to water ski that year [at an adapted waterskiing camp]! So, it was a fun first as a parent to be able to see my three oldest kids ski this summer. To be able to include Sarah in something the other two kids did was just such a
delight for me, as a parent. That I could say she did it too you know, it was really
fun and brought me a lot of joy.

Rick added that his son on the Autism spectrum spends they most time with his brother
when they are active in the outdoors “[He plays more] with his brother when they are
outside, they like to play football and baseball. They play hockey and shoot at a hockey
net. They play horse. Mostly sports related activities.”

**A. b) Parents Perceived OP as Increasing Peer to Peer Interactions**

Sub themes A. b looks at how parents perceived OP as increasing child's
confidence in their own skills as well as provided opportunities to increase peer to peer
interactions for their CWD. During her interview, Dawn told of how her daughter is more
motivated to participate in OP when her friends are also partaking in the activity.
“…seeing the activity done by others motivates her to be active herself… anything where
her friends will be there, It's like, oh my friends are doing this, I'll go do that then, kind of
thing.” This was a common sub theme though out the interviews as both a facilitator and
a motivator to the CWD to participate in OP. Brooke stated that “…having a peer with
him I think is key. Because if I told him, let's go play tennis, he’d tell me no. But if I said
Joe wants to take you and play tennis! He'd be all excited.” Lastly, Eve stated that her
CWD and the rest of her children prefer to hang out with other kids while playing
outside. “…. [My] kids hang out with some neighbor kids here… They are outside all the
time and are very active as a group, they go hiking and biking together all over the
place.”

**B.) Strong Value of PA within the Family and the Community**

Theme B speaks to how the family as a whole view themselves as movers and
how they see PA benefiting the whole family as impacted by the community they are a
part of. Theme B and its subthemes are centered around how the parents view not only the CWD as a mover, but the whole family. Subtheme B.a “Active Community that Prioritizes all movers” sheds light on the idea that if a family with a CWD is a part of a accepting community that helps accommodate all abilities in OP, then that acts as a facilitator to OP not just for the CWD, but the whole family. Subtheme B.b “Parents Take Responsibility for their CWD and OP outings” looks at parents’ self-perceptions of being able to successfully take their family on OP outings and how they are able to overcome obstacles they might encounter with their CWD in this environment.

**B. a) Active Community that Prioritizes All Movers**

First, an attempt to understand if the parents of the CWD valued PA for their whole family and how their CWD fit into that valuation. When asked what kinds of PA the family partakes in, Beth stated “We are an active family, so she does everything we do. Her sisters are very into softball so [she] is out there in her wheelchair and she gets a turn hitting and she loves that.” Anne said “…. we bike as a family, we hike as a family, I have him signed up this spring for soccer and track, and this winter we did cross country skiing together.” When asked what kinds of PA their family participates in. Brooke stated “…whether it's me being physically active with them or somebody else, I love for them to be involved in physical activity.” When asked about how they felt about PA for their family.

Then, questions were asked to see if the community and friend group facilitated or hindered PA for the subject family. An overwhelming number of families were apart of active friend groups a stated that this resulted in their family being more active as well. Kennedy told of how their friends help with their CWD while on outings.
“Well camping is mostly what our friends do right around us, we all go camping together. They'll help me take [my daughter] on walks when we're camping because sometimes the paths are not incredibly wheelchair accessible, and you'll get stuck in a bunch of dirt and mud. They grew up being with us so they're all very used to [her] being out and about with us on those trips.”

Anne spoke of how their neighborhood prioritizes their kids being and playing outside with each other. “…our kids actually hang out with some neighbor kids. Those kids are outside all the time, all of our kids play outside and they're very active, kind of like the olden days neighborhood like I grew up with.”

**B. b) Parents take responsibility for their CWD and OP outings.**

Sub theme B.b looks at how and if parents take initiative to plan outings and activities with friends to ensure their CWD can participate in the activities. Every interview subject was asked “has an outing ever not gone as planned” pertaining to activity that they had wanted to do but things went poorly and resulted in their family not being able to participate for whatever reason. While the responses varied, the main theme of the responses was that families were able to run into problems and overcome them because they are used to having to adapt plans to accommodate for their CWD.

Candice even said that she hasn’t run into any problems saying “No, but that's only because I'm a planner…If I plan to go somewhere, I will make sure that it has what we need, or that I have the equipment we need to be able to do it…” when asked if she has ever run into problems on an outing. In a response to the same question, Dawn responded with “Yeah, but you make it work. I mean, living in my world, we learn that things don't always go according to plan. So, you just make adjustments, and you work together with
other people to make it right.” On the other end of the spectrum, Helen sighted that the main reasons that outings do not go as planned for her family is not due to environmental or accessibility issues, rather behavioral issues with her two daughters with disabilities. “Often times I would go to take the girls and they both have behavioral issues, so we would get there and have behaviors and we would have to leave Because people stare, so we pack up and we leave.” Although parents cannot predict when their child will have behavioral issues, some parents spoke of how, because they know what types of environments trigger outburst, they know how to plan around that most effectively for OP outings. Sophia speaks of how they know her CWD is affected by loud noises and large groups of people, so when they plan outings, they make sure their activity destination is quite and secluded to help ensure minimum behavioral issue.

C.) Parent’s Positive Perceptions of OP adapted Programming Facilitated Child’s Involvement in OP

Positive perceptions of adapted outdoor pursuit programs, facilitated parents’ confidence to enroll their child in Adapted Outdoor Pursuit (AOP) programs, therefore boosting their child's involvement in OP. When parents were asked directly what they thought was the largest facilitator for OP for their child with a disability, the most common response was OP programming conducted by an outside entity specifically trained in working with kids with disabilities. Conversely, this theme also produced the most hinderances as well. Meaning, when programs are run well, parents think they are the best way to get their CWD involved with OP, but when they are lacking in one area or another, they can hinder a CWD involvement in OP.
C. a) Parental Confidence in Staff Making Meaningful Relationships with their CWD.

When an outdoor pursuit program is staffed with individuals, who have been trained in how to teach and work with kids with disabilities, parents were more likely to enroll their CWD in that program. Beth said, “If it's going to be a program specific to special needs kids then I already know that it's going to work [ for my child].” When I asked Eve and her husband Ben what they thought made a good program staff member, they responded with “I want them to have exposure to disability and at least know what they are getting into. Not just someone who is a history major picked off campus and put here.” Dawn went on to say that the most motivated people she has seen working with her kids were college kids from the local university who were enrolled in the Adapted Physical Education program.

You don't go into disability work for the money or fame or the glory. It’s because you catch the bug somewhere, you met somebody, and you saw through the disability. You realize the impact, you said I want to do that and that's the beauty of it.

Anne explained that the environment created by the staff is also incredibly important in creating confidence in the AOP program.

It was just cool to be an environment where it didn't matter that your daughter was disabled, it didn't matter that she screamed it didn't matter, she would act differently. Nobody cared, like everyone was so kind it was the most welcoming environment I think I've ever been in.
Adding to these thoughts, Kennedy outlined what she looks for in AOP programming by saying she looks for programs that are open to all disability types.

“[I look for] ones that are open to kids of all abilities... Maybe it's just because I have a child that is more on the severe end of special needs, it's not just a developmental delay or anything like that. Obviously, she's really dependent on people so when I look at a program the first thing that I'm looking for is do you list anything about what types of disabilities you work with or what types of accommodations are being made...”

In addition to wanting staff trained in working with CWD, parents also wanted staff to have good interpersonal skills and the ability to create rapport with their child in a way that increased time spent being active. Beth spoke to this idea by saying that her daughter “is a social butterfly, she loves people. So, when I'm looking for somebody to be one on one with her, I want somebody who's fun and interactive and has a great personality because that's what [she] thrives on.” This parent added, “...if somebody is a bump on a log then [she] isn't going to have nearly as much fun. So, we look for programs that have people that want to be there and are very interactive with the kids.” Dawn summed this up with this statement. “... mostly it's just being comfortable with the mentors, comfortable with the people doing the program and the hands-on work. We're really blessed in our area to have so many good people stepping up to the plate.”

C. b) Parents Lack of Perceived Competencies in Facilitating OP for their CWD.

Due to parents perceived lack of competence in facilitating OP for the CWD, parents often turned to outdoor programming. For example, Helen suggested:
I think it's just learning the skills he needs to be able to do to participate in the activity. If we aren't good at the activity, we can't teach him, so it is nice to have a coach or someone available through a program. Yeah, so a specialized coach in the activity, but also someone who is privy to what it is like to teach students with autism.

In addition, Grace said their age is starting to play a factor in the amount of PA they can provide for her two CWD. “.. you're talking to a 50-year-old who is starting to feel aged. I’m still able to do things, but I’m starting to feel at some point, this is going to have to end, riding on the bike so much for example.” She sighted this as another reason to look for programming to take over providing outdoor PA for their kids.
DISCUSSION

Parents of children with disabilities (CWD) make significantly more decisions for their children than parents of children without disabilities (Must et al., 2015). Due to this, the rationale behind why parents make the decisions they make as it pertains to physical activity (PA) is important to understand to help increase CWD PA levels. Due to the lack of research, this study founded on the Theory of Planned Behavior (TBP) and inspired by the work of Columna et al. (2019), specifically focused on the decision-making process and what parents of CWD perceive as facilitators to their child’s participation in OP.

The themes found in this study are consistent with previous studies regarding parental perceptions of their child's PA participation (Ajzen, 1991; Dorsch et al., 2016; Hagger et al., 2020; Lee, 2004; Mactavish & Schleien; 2004; Must et al., 2015; Sternman et al., 2016). Theme one found that parents perceive participation in OP to promote growth in all domains for the CWD. Theme A.a uncovered that parents believe that having their child participate in OP activities promoted autonomy and equity for the CWD among the family. Theme A.b revealed that parents perceived OP as increasing peer to peer interactions for their CWD. Theme B found that a strong value of PA within the family and the community the family is a part of acted as a PA facilitator for the whole family. Theme B.a found that when the family of the CWD is a part of a physically active community and friend group it acted as a PA facilitator. Theme C found that parent’s positive perceptions of OP adapted programming facilitated child’s involvement in OP. Theme C.a found that parental confidence in staff making meaningful relationships with their CWD boosted OP participation. And theme C.b found that
parents turned to OP programming when they lack perceived competencies in facilitating OP for their CWD.

Theme A, Parents perceive participation in OP as a means to promote growth in all domains for the CWD, and its subthemes proved to be a crucial perspective for parents to hold in order for them to develop the intention to involve their CWD in OP. This theme coincides with the attitude portion of the TPB which relates to how the person making the decision feels about the behavior (Ajzen, 1991). This proved to be an accurate predictor of whether a parent develops the intention of including their CWD in OP. We know that parents of CWD make much more decisions regarding their PA and how they engage in PA (Must et al., 2015), so understanding this theme was an important first step in finding accurate facilitators of OP for CWD. In addition to this, theme A and its subthemes made it clear that parents looked to OP as a means of providing equity among the family in PA and increasing peer to peer interactions for the CWD. When parents of CWD hold these views of OP, it acts as a facilitator to OP for their CWD. These findings are supported by the conclusions made by Sternman et al. (2016) in their systematic review pertaining to parental decision making regarding including their children in OP. In all 11 studies analyzed by the research team, the caretakers cited outdoor play as important for their child's overall development in the cognitive, social, communicative, physical, and emotional domains. Lastly, the findings of Lee (2004) support the ideas from theme A, in that the researchers found parents saw PA as a means to increase time with friends, boost self-concept, and to help foster independence and equality for the CWD.
Theme B and B.a were found to be facilitators of OP for the CWD because when the family of the CWD is surrounded by others who actively engage in OP, the idea of a subjective norm is solidified and the intention to include their own children in OP is intensified. These findings are substantiated by the second aspect of TPB (Ajzen, 1991) which states that a person's belief about whether peers and people of importance to that person think he or she should engage in the behavior. In this case, when the family of the CWD sees those around them that they care about participating in OP, it signals to them that it is appropriate for them to engage in OP as well. Theme B.b spoke to how parents of CWD feel confident in the ability to facilitate OP for their whole family including their CWD. When parents have perceived confidence in their ability to successfully include their children in OP, the intention further grows. This was another facilitator identified by the current study and is again supported by TPB, but this time by its third component, perceived behavioral control. The prevalence of the concept of behavioral control was identified as a key marker for parents to have before they included their child in a health enhancing behavior, such as OP as found by Hagger et al. (2020).

Theme C, Parent’s positive perceptions of OP adapted programming facilitated CWD involvement in OP, was the most sighted facilitator to OP for CWD as stated by parents during the interview process. Parents had more confidence in the abilities of an outside entity providing OP experiences for their CWD, or it was simply more convenient to have trained staff working with their child then it was to do it themself. Parents sighted having staff member that were trained and well versed in working with children with disabilities and their ability to form relationships with their child as the most important aspect they looked for in a program before signing their child up for an event (subtheme
C.a). After this, the next most important factor was a staff that was excited and passionate about working with individuals with disabilities. Parents spoke of how this was not necessarily a tangible quality, but more of a sense they got when speaking to a staff person that was to be working with their child. These findings and beliefs held by parents also point to perceived behavioral control and TPB (Ajzen, 1991). Even though parents may not have cited their own ability to provide OP for their child as a facilitator in this sub theme (C.b) that did not stop them from enrolling their child in an outdoor program that they deemed sufficient. Parental belief that an outside entity could provide safe OP for their child was found to be a major facilitator in this study. Parents are correct to think this according to the findings of Dorsch et al. (2016), where they found that properly run programming designed to focus on CWD was successful in helping overcome traditional OP barriers (i.e., lack of specialized equipment and training) and increased students interpersonal and intrapersonal skills. Additionally, families that participated in the 2016 study stated that the program helped them create a culture of contesting barriers in a way they had not before. Meaning, these families were not as quick to say “we can't do that” or “this is not for us” after participating in the program.

While the availability of adapted outdoor programming (AOP) was sighted as the largest facilitator to children with disabilities participation in OP, parents indicated that there were two main short comings associated with AOP.

There is a Lack of Adapted Outdoor Programming Advertising

Parent 3 spoke of how she felt that “... special needs [programming] is the best kept secret, nobody has a ton of advertising or anything like that... But maybe if there was
a way for us to find new things in an easier way then that might help.” Parent 7 echoed this idea by saying that “… it's the programs that are out there that as parents don't know about that make it more difficult.”

This short coming is substantiated by the findings in Lee’s dissertation (2004). Parents sighted availability of programming as the number one barrier to PA for their child. This is relevant because if a parent is not aware of an opportunity due to lack of advertising, the program might as well not exist.

If a program is available that specializes in disability, advertising for that program should also be specialized. Using Facebook adds in groups dedicated to families of children with special needs, contacting adapted university programs, and even something as simple as a billboard ad would go a long with boosting awareness of families that would love to take advantage of these types of opportunities.

**Transportation to the Program Location**

Parent 5 indicated that she wished programs offered some type of shuttle service that would aid in getting her child to the program. She indicated that it is a challenge for working families to get their kids where they need to go during the day.

If I didn't work, I think it would be a lot easier. But for the families at work, like normal day shift, some of the stuff's really hard to just physically get your kid to. [I’d] even paid for the transportation, but if they would have had like, one of those van, you know, tots on the go or whatever it's called that could have gone around and picked him up at the daycare and then taken back to the daycare that would have been fantastic.
Again, in Lee’s dissertation (2004), parents sighted lack of transportation to a from programming as a barrier to PA for their child. If programs added the option of transportation more children would have to opportunity to attend. But with added transportation could added cost. This might be a problem for some families, but cost of programming was sighted as “not a concern” in 127 out of 186 families surveyed in Lee’s study.

**Limitations**

While the current study was comprehensive in its analysis of the data provided by the participants, there was one main limitation to the study that must be addressed. All the participants were from the same geographical area (within one hour of La Crosse, Wisconsin). This area is rich in opportunities for CWD to be physically active in a multitude of ways including in OP. Because of this, the answers given by the participants might not reflect the thoughts held by parents of CWD in other geographical areas.

**Future Research**

Future research should focus on interviews with a population from a diverse geographic area, it should also try and gather an ethnically diverse subject population. Secondly, future research should select a specific disability type, such as autism, to gain an understanding of how parents of children with a specific disability make these decisions. Next, if the children are verbal, it would be of use to include the children in the interview process to see what they think are way that we can better help them in the realm of OP. Lastly, the current study was only able to interview two fathers. Gathering a larger group of subjects, but more specifically, fathers could lead to an alternative viewpoint and a better understanding of the phenomenon. It would be worthwhile to
continue to gain understanding of what makes PA and OP more accessible for CWD, but also how we can ensure parents will be willing to include their children in those opportunities in the future.
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