

EVALUATION OF A 5-SESSION COMMUNITY BASED PHYSICAL ACTIVITY  
EDUCATION PROGRAM FOR PARENTS OF CHILDREN WITH DISABILITIES

By

Sam Maritzen

A Thesis Defense Presented to

The Faculty of Humboldt State University

In Partial Fulfillment of the Requirements for the Degree

Master of Science in Kinesiology: Teaching/Coaching

Committee Members

Dr. Jill Pawlowski, Committee Chair

Dr. Chris Hopper, Committee Member

Sally Carlson-Mircetich M. Sc., Committee Member

Dr. Taylor Bloedon, Program Graduate Coordinator

May 2019

## ABSTRACT

### EVALUATION OF A 5-SESSION COMMUNITY BASED PHYSICAL ACTIVITY EDUCATION PROGRAM FOR PARENTS OF CHILDREN WITH DISABILITIES

Sam Maritzen

Children with disabilities are less likely to reach the daily recommendation (60 minutes) of physical activity a day. Parents of children with a disability play an important role in the amount of physical activity their child participates in but often lack the knowledge and skills necessary to facilitate physical activity opportunities. Therefore, the purpose of this study is to evaluate the feedback received from parents that participate in the parental physical activity education program. Participants included 8 parents of a child with a disability from the age of six to 14. The feedback from parents was assessed by a program evaluation survey, which included 5 close-ended questions that are scored on a 5-point Likert scale. Mixed methods will be used with descriptive statistics expressed in means and SD for all closed questions. The program evaluation revealed that while the program components were perceived as being helpful for facilitating physical activity over the summer, it did not change parents overall view of physical activity.

*Keywords:* physical activity, children with disabilities, parents role, barriers

## TABLE OF CONTENTS

<b>INTRODUCTION.....</b>	<b>1</b>
<b>PURPOSE.....</b>	<b>3</b>
<b>RESEARCH HYPOTHESIS .....</b>	<b>4</b>
<b>REVIEW OF LITERATURE .....</b>	<b>5</b>
<b>Youth with Disabilities and Physical Activity .....</b>	<b>5</b>
<b>Patterns of Parental Physical Activity Engagement.....</b>	<b>6</b>
<b>Theoretical Framework .....</b>	<b>6</b>
<b>Limitations .....</b>	<b>7</b>
<b>Delimitations .....</b>	<b>7</b>
<b>Assumptions .....</b>	<b>7</b>
<b>METHODS .....</b>	<b>8</b>
<b>Participants .....</b>	<b>8</b>
<b>Instruments/Measurements .....</b>	<b>8</b>
<b>Procedures.....</b>	<b>8</b>
<b>RESULTS .....</b>	<b>10</b>
<b>DISCUSSION .....</b>	<b>12</b>
<b>CONCLUSION .....</b>	<b>14</b>
<b>REFERENCES.....</b>	<b>15</b>

## LIST OF TABLES

TABLE 1

11

## INTRODUCTION

Physical inactivity is a major health concern around the world due to its relationship to childhood obesity (Panagiotopoulos et al., 2011). Children between the ages of six and 17 are not meeting the recommended 60 minutes of physical activity per day (Centers for Disease Control and Prevention [CDC], 2017; Janssen & Leblanc, 2010; U.S. Department of Health and Human Services [UHHS], 2008). In addition, children with disabilities, who make up 9.2% of school-aged children are not meeting the physical activity guidelines at a greater rate than their peers without disabilities (Rimmer, Rowland, & Yamaki 2007; Sit, McKenzie, Cerin, Chow, Huang, & Yu 2016; Sit et. al, 2016). These low rates of physical activity engagement are concerning due to the health benefits of regular physical activity including decreased risk for chronic disease, improved fitness and mood, increased social interactions, and decreased anxiety and stress (Janssen & LeBlanc, 2010; Tristani, Bassett-Gunter, Tanna, 2017).

Parents play an important role in promoting physical activity for their children by creating an environment that values and supports regular physical activity (Miklankova, Gorny, & Klimesova 2016). Parental support is especially critical for children with disabilities as they rely more heavily on their parents to facilitate physical activity than their peers without disabilities (Lee, Park, Chu, & Oh, 2015). When parents encourage their children participate in physical activity, and participate themselves, their children are more likely to experience accessible physical activity opportunities and thus increase their physical activity levels (Miklankova, Gorny, & Klimesova 2016). One strategy for

increasing parents' ability to facilitate physical activity engagement for their children is to provide a physical activity education program for them to learn the skills, (e.g. goal setting, overcoming barriers, and adapting activities) necessary to provide more physical activity opportunities.

## PURPOSE

The purpose of this study is to evaluate the feedback received from parents that participate in the parental physical activity education program.

## RESEARCH HYPOTHESIS

The researcher hypothesizes that parents will provide positive feedback on the utility of the program components to increase their ability to facilitate physical activity for their children.

## REVIEW OF LITERATURE

### Youth with Disabilities and Physical Activity

The recommended amount of physical activity that youth should participate in is one hour (60 minutes) a day (Rimmer, Rowland, & Yamaki 2007; Downs, Fairclough, Knowles & Boddy, 2016). A majority of children with disabilities do not meet the moderate to vigorous physical activity guidelines and spend more time in sedentary activities than children without disabilities, increasing their risk for disease (Pan & Frey 2006; Fowler et al., 2007). This decreased physical activity time is due, in part, to a lack of supports in recreational and competitive sports, and sensory and cognitive impairments (Rimmer et al 2007). Overcoming these barriers and engaging in physical activity is important for positive self-esteem, behavior, happiness and intellectual and social outcomes for youth (Frey & Pan, 2006).

Children with disabilities often have delayed gross motor development, less proficiency in balance and coordination, poor cardiovascular fitness, and increased risk for chronic diseases compared to their typically developing peers (Rimmer et al., 2007; Shields, Synnot 2016). Regular participation in physical activity can decrease these health disparities by enhancing body composition, physical fitness, and bone health, as well improving psychological health, social engagement and behavior (Shields, Synnot 2016).

## Patterns of Parental Physical Activity Engagement

Parents of children with a disability play an important role in the amount of physical activity their child participates in (Jeong, Kim & Lee 2015; Miklankova, Gorny, & Klinesova 2016). Tangible barriers that prevent parents from facilitating physical activity participation for their children include providing transportation, lacking facilities, and paying fees; and intangible barriers include providing encouragement and examples of how to be active, and fear of injury to their child (Beets, Cardinal & Alderman 2010; Schleien, Miller, Walton & Pruett 2014; Shields, Synnot 2016; Tristani, Bassett-Gunter, & Tanna 2017). Socioeconomic factors are also considered a barrier for lower income families because of unsafe neighborhoods and the lower availability of organized sports. (Erkelenz, Kobel, Kettner, Drenowatz, Steinacker 2014; Metcalf, Voss, Hosking, et. al 2008; Rimmer, et al 2007). Despite the importance of parents in facilitating physical activity for their children, many lack the knowledge and skills necessary to overcome the barriers this facilitation highlighting the importance of having programs available to parents that can provide them with this knowledge and skills.

### Theoretical Framework

Having a theoretical basis for programs is critical in increasing likelihood of successful behavior change. The theory of planned behavior is beneficial in providing insight into parental beliefs and parental behavior towards supporting physical activity

participation for their child with a disability (Jeong et al., 2015). However, integrated theories tend to produce better outcomes than individual theories. As a result, this program was designed using an integrated model that includes parents' attitude toward behavior, self-efficacy, and implementation intention as the basis for its components in order to increase intention for and thus actual facilitation of physical activity opportunities for their child (Kodish, Kulinna, Martin, Pangrazi, & Darst, 2006; Martin & Kulinna, 2004; Motl et al., 2005).

#### Limitations

Limitations may include parents overestimating their ability to facilitate physical activity opportunities, and parents may miss sessions.

#### Delimitations

The delimitations of the study include parents who have children between the ages of 6-14 years old and parents attendance/participation in the hour long fitness education class.

#### Assumptions

The assumptions of the study are that the parents attend the hour-long educational course, and provide accurate and honest information for the program evaluation.

## METHODS

### Participants

Parents of children with disabilities were recruited from HSUfit, a Friday evening program that brings children with disabilities to campus for inclusive gym and pool activities. The exclusion criteria include if the children are under the age of six or over the age of 14 and if the parent is not able to speak fluent English.

### Instruments/Measurements

Program evaluation was completed through an evaluative survey that assessed parents perceptions of the strengths and weaknesses of the program including topics they would have liked to have included in the program and their prediction of the utility of the information and skills that they learned from participating in the program. The survey includes 5 close-ended questions that are scored on a 5-point Likert scale.

### Procedures

During the week long FitFam program, parents of children with disabilities spent one hour per day, for five days, in a physical activity education program. Two masters students facilitated the parent program each day. The program consisted of topics regarding how to make homemade equipment, community mapping, and overcoming barriers. Each session consisted of a review of the previous day, discussion of the new topic and activities that provide them with opportunities to practice the application of this

knowledge. Program components were designed to be individualized to meet the physical activity preferences and needs of the families involved. Parents utilized these materials to facilitate self-directed physical activity opportunities for their families at home and in the community. At the end of the five-day program, participants responded to five question survey questions to evaluate program components. The survey questions were scored on a five point Likert Scale.

## RESULTS

Eight parents participated in the Fitfam program and the follow-up evaluation. Descriptive statistics expressed in means and SD for all closed survey questions and are expressed in Table 1.

Table 1

*FitFam Parent Education Program Survey Results*

	Overall, how would you rate the quality of the parent portion of the FitFam program?	Do you feel that the discussion on providing physical activity opportunities will be helpful in finding physical activity opportunities for your child over the summer?	Do you feel that the discussion on providing physical activity opportunities will increase physical activity levels of your child over the summer?	Do you feel that the discussion on providing physical activity opportunities will increase physical activity levels of your family over the summer?	Did engaging in the FitFam program change the way you view physical activity?
Mean Score	4.75	4.625	4.125	4.125	3.88
Std. Deviation	0.463	0.517	0.641	0.641	0.834

## DISCUSSION

The purpose of this study was to evaluate the feedback received from parents that participated in the parental physical activity education program. The researcher hypothesized that parents would provide positive feedback on the utility of the program components to increase their ability to facilitate physical activity for their children. All items were scored on a five point Likert Scale. Based on the results, the researcher found that the mean score for change in view of physical activity was only 3 (SD=0.83). It is unclear why this occurred, but we note that the participants were recruited from a previous physical activity program and had background knowledge of physical activity. Therefore, families may have already highly valued physical activity before engaging in the program making it less likely that we would see a change in this score during the program. The mean score regarding the discussion on providing physical activity opportunities to be helpful in promoting physical activity over the summer was also relatively high at 4.62 (SD=0.52). The researcher believes this is because there were various topics covered such as homemade equipment, and community mapping which allowed the participants to engage in discussions where they learned about accessible physical activity opportunities from both program facilitators and each other. The mean score for the program facilitating increased physical activity levels for the child and the family were both 4.12 (SD=0.64). The researcher believes this is because parents were able to support each other and provide personal experiences and feedback during

discussions. The average score of the overall quality of the parent program was 4.75 (SD=0.46) indicated that the parents rated the quality of the program high. Taken as a whole, the program evaluation revealed that while the program components were perceived as being helpful for facilitating physical activity over the summer, it did not change parents' overall view of physical activity. However, since the parents could have already had positive views of physical activity before entering the program, this suggests that there is value in the program for providing parents with the skills to facilitate the physical activity that they value.

## CONCLUSION

Eight parents participated in this study evaluating the physical activity education program. The program included five 30-minute sessions and consisted of topics regarding how to make homemade equipment, community mapping, overcoming barriers, and creating a family physical activity plan. The mean score for the change in view of physical activity was 3 (SD=0.83). The mean score for the discussion on providing physical activity opportunities to be helpful in promoting physical activity over the summer was (M=4.62, SD=0.52). The mean score for both survey questions about increasing physical activity levels of their child and family over the summer was (M=4.12, SD=0.64), and the rating of the overall quality of the parent program was (M=4.75, SD=0.46).

Future researchers should continue this research with a larger and randomized sample size. Research should include parents of children who do not regularly participate in physical activity programs, and families that do not participate in local physical activity events. Lastly, the parent education course should be over a longer time period, such as eight weeks for one hour per day.

## REFERENCES

- Beets, M. W., Cardinal, B. J., & Alderman, B. L. (2010). Parental social support and the physical activity-related behaviors of youth: a review. *Health Education & Behavior, 37*(5), 621-644.
- Centers for Disease Control and Prevention (CDC). (2017). *Physical activity facts*. Retrieved from <https://www.cdc.gov/healthyschools/physicalactivity/facts.htm>
- Downs, S. J., Fairclough, S. J., Knowles, Z. R., & Boddy, L. M. (2016). Physical activity patterns in youth with intellectual disabilities. *Adapted Physical Activity Quarterly, 33*(4), 374-390.
- Erkelenz, N., Kobel, S., Kettner, S., Drenowatz, C., & Steinacker, J. M. (2014). Parental activity as influence on children's BMI percentiles and physical activity. *Journal of Sports Science & Medicine, 13*(3), 645-650. Retrieved from <http://web.a.ebscohost.com.ezproxy.humboldt.edu/ehost/pdfviewer/pdfviewer?vid=2&sid=f93fa525-7b04-46f2-9a30-7aae338b1d1b%40sessionmgr4010>
- Fowler, E. G., Kolobe, T. H., Damiano, D. L., Thorpe, D. E., Morgan, D. W., Brunstrom, J. E., ...& Rose, J. (2007). Promotion of physical fitness and prevention of secondary conditions for children with cerebral palsy: section on pediatrics research summit proceedings. *Physical Therapy, 87*(11), 1495-1510. doi: 10.2522/ptj.20060116

ISAPA Abstracts. (2015). Palaestra, 29(4), Palaestra, 2015, Vol.29(4).

Janssen, I., & Leblanc, A. G. (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioral Nutrition and Physical Activity*, 7(1), 40. doi: 10.1186/1479-5868-7-40

Jeong, M., Kim, S., & Lee, E. (2015). Parents' beliefs and intentions toward supporting physical activity participation for their children with disabilities. *Adapted Physical Activity Quarterly*, 32(2), 93-105. doi: <http://dx.doi.org/10.1123/APAQ.2013-0106>

Kodish, S., Kulinna, P., Martin, J., Pangrazi, R., & Darst, P. (2006). Determinants of physical activity in an inclusive setting. *Adapted Physical Activity Quarterly*, 23, 390–409.

Martin, J. J., & Kulinna, P. H. (2004). Self-Efficacy theory and the theory of planned behavior: Teaching physically active physical education. *Research Quarterly for Exercise and Sport*, 75(3), 288–297.

Metcalf BS, Voss LD, Hosking J, et al Physical activity at the government-recommended level and obesity-related health outcomes: a longitudinal study (Early Bird 37) *Archives of Disease in Childhood* 2008;93:772-777.

Miklankova, L., Gorny, M., & Klimesova, I. (2016). The relationship between the family's socioeconomic status and physical activity level of pre-school children. *Trends in Sport Sciences*, 23(4), 193-202. Retrieved from <https://humboldt-illiad->

oclcorg.ezproxy.humboldt.edu/illiad/illiad.dll?Action=10&Form=75&Value=197

574

- Motl, R., Dishman, R., Ward, D., Saunders, R., Dowda, M., Felton, G., & Pate, R. (2005). Comparison of barriers self-efficacy and perceived behavioral control for explaining physical activity across 1 year among adolescent girls. *Health Psychology, 24*(1), 106–111.
- Pan, C. Y., & Frey, G. C. (2006). Physical activity patterns in youth with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 36*(5), 597-606.
- Panagiotopoulos, C., Ronsley, R., Al-Dubayee, M., Brant, R., Kuzeljevic, B., Rurak, E., ... & Masse, C. (2011). The centre for healthy weights- Shapedown BC: A family-centered, multidisciplinary program that reduces weight gain in obese children over the short-term. *International Journal of Environmental Research & Public Health, 8*(12), 4662-4678. doi: 10.3390/ijerph8124662
- Rimmer, J. H., Rowland, J. L., & Yamaki, K. (2007). Obesity and secondary conditions in adolescents with disabilities: Addressing the needs of an underserved population. *Journal of Adolescent Health, 41*(3), 224-229. doi:10.1016/j.jadohealth.2007.05.005
- Rimmer, J. H., Yamaki, K., Lowry, B. M., Wang, E., & Vogel, L. C. (2010). Obesity and obesity-related secondary conditions in adolescents with intellectual/developmental disabilities. *Journal of Intellectual Disability Research, 54*(9), 787-794. doi: 10.1111/j.1365-2788.2010.01305.x

- Schleien, S. J., Miller, K. D., Walton, G., & Pruett, S. (2014). Parent perspectives of barriers to child participation in recreational activities. *Therapeutic Recreation Journal*, 48(1), 61-73. Retrieved from <https://search.proquest.com/openview/0814f257aa5c3e0ed024928201dccc61/1?pq-origsite=gscholar&cbl=5997>
- Shields, N., & Synnot, A. (2016). Perceived barriers and facilitators to participation in physical activity for children with disability: A qualitative study. *Bmc Pediatrics*, 16(9), 9.
- Tristani, L. K., Bassett-Gunter, R., & Tanna, S. (2017). Evaluating internet-based information on physical activity for children and youth with physical disabilities. *Adapted Physical Activity Quarterly*, 34(1), 55-71. doi: <http://doi.org/10.1123/APAQ.2016-0012>
- U.S. Department of Health and Human Services [UHHS]. (2008). *2008 Physical activity guidelines for Americans*. Retrieved from <https://health.gov/paguidelines/guidelines/summary.asp>