

# Facilitating Physically Active Leisure for Children Who Are Overweight

*Mothers' Experiences*

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## Abstract

Mothers play important roles in treating childhood obesity, including facilitating physically active leisure. The purpose of this study was to explore mothers' perceptions of roles they perform and experiences they have with facilitating physical activity for their child who was overweight. Two semi-structured interviews were conducted with 34 mothers participating in a Pediatric Lifestyle Management program, and case notes were kept during one-on-one leisure education meetings with participants. Findings indicated that mothers described facilitating physical activity by modelling, co-participating, verbally encouraging, offering tangible support, and assisting with interest exploration. Factors influencing their roles included mothers' health, knowledge of child's interests, divergent family interests, lack of time, concern for the child's experience, and support from others.

**Keywords:** *mothers; childhood obesity; facilitators; leisure; physical activity*

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The rise in childhood overweight over the last few decades has been rapid, and the World Health Organization (2003) has declared the prevalence of overweight and obesity a global epidemic. In the United States, the percentage of children aged 6–11 years who were obese increased from 7% in 1980 to 18% in 2010 (Ogden, Carroll, Kit, & Flegal, 2012). Similarly, the percentage of adolescents aged 12 to 19 years who were obese increased from 5% to 18.4% over the same period. Over a third (33.6%) of children aged 6 to 19 in the U.S were either overweight or obese in 2009–2010. Canadian statistics indicate that between 2009 and 2011, 19.9% of youth aged 12 to 17 years were overweight, and 10.2% were obese (Shields, 2005). Among children 5 to 11 years of age, 9.7% were overweight, and 13.1% were obese. In Canada, childhood obesity rates have more than doubled since 1980. The alarming growth of childhood obesity in North America and concerns about the resulting short and long-term health consequences have prompted researchers to investigate contributing factors. As evidence mounts linking childhood and adolescent obesity with a lack of physical activity and greater engagement in sedentary pursuits (e.g., television viewing, computer use), attention has focused on what influences their leisure-time behaviors.

Children's level of physical activity has been associated with psychological factors including self-efficacy (Hagger, Chatzisarantis, & Biddle, 2001), body image (Slater & Tiggemann, 2010), and activity preference (Epstein, 1998); the physical environment in which children live (Pate et al., 2008); and social models such as parents, peers, and other adults including teachers and coaches (Hamilton & White, 2008; Thompson et al., 2009). Researchers consistently identify parents as the most significant social influence on children's physical activity (Sallis, Prochaska, & Taylor, 2000). Parents are role models but also facilitate their children's physical activity through encouragement and support (Davison & Birch, 2002; Davison, Francis, & Birch, 2005). Research correlating parents' own physical activity behavior with their children's has produced mixed findings (Gustafson & Rhodes, 2006). As a result, some scholars have advocated that more attention needs to be given to the *other roles* parents play in facilitating their children's physical activity (Welk, Woods, & Morss, 2003). Therefore, this study focuses on parents' roles, beyond modelling, as facilitators of physically active leisure.

Within the leisure literature, Raymore (2002) used the term "facilitator" to describe parents' positive roles in children's leisure participation. As facilitators, parents "promote the formation of leisure preferences and encourage participation" (p. 39). Parents introduce and/or expose their children to activities that help the formation of preferences. Children's leisure participation can be encouraged verbally or through parents' ability and willingness to co-participate, enroll, finance, and/or transport children to leisure activities and experiences.

The literature on children's physical activity has conceptualized "facilitator" in slightly different ways. Parental facilitation is conceptualized as "gatekeeper" support that captured the parent's passive efforts to provide access or opportunities for the child to be active" (Welk et al., 2003, p. 22-23). This support includes tangible and intangible forms of support such as providing transportation and access to facilities and spaces, exposing children early to various physical activities, paying fees for programs and services, and providing encouragement (Beets, Cardinal, & Alderman, 2010; Moore et al., 2010; Walia & Leipert, 2012). Parental facilitation is contrasted with "parental involvement," which includes more overt forms of support such as participating in active leisure with a child (Welk et al., 2003). Raymore's (2002) conceptualization encompasses both tangible and intangible forms of support, includes involvement, and also acknowledges parents' roles in helping children's preference formation. Therefore, Raymore's more inclusive conceptualization of facilitator will be used in this study.

The current study focuses on mothers of children who are overweight. Mothers tend to be the key agent responsible for organizing family life including creating opportunities for their children to participate in physical activity (Bevan & Reilly, 2011; Hays, 1996; Shaw & Dawson, 2001). The "hidden work" associated with facilitating children's participation in physical activities such as planning, organizing, scheduling, and transporting is completed primarily by mothers (Haycock & Smith, 2012; Trussell & Shaw, 2012) and comprises important parts of a facilitator's role. In addition, mothers of children who are overweight are often blamed or "framed" as responsible for their child's weight status (Herdon, 2010; Mahar, Fraser, & Wright, 2010). Mothers with a child who is overweight report feeling judged, admonished, and/or responsible for their child's weight status, experiencing frustration with how to best help their child, and worrying about their child's health and well-being (Boutelle, Feldman, & Neumark-Sztainer, 2012; Jackson, Wilkes, & MacDonald, 2007). These feelings and experiences likely add a layer of complexity to mothers' roles as facilitators of physical activity.

Despite the rising rates of childhood obesity and mothers being recognized as significant facilitators of their children's physical activity, the experiences of mothers with overweight children have not been extensively examined. Therefore, this study focuses on the experiences of these mothers. Existing research on parents' roles as facilitators and factors influencing those roles was useful in framing the study.

### **Parents' Roles as Facilitators of Children's Physical Activity**

Parents are significant socializing agents for their children's leisure participation and leisure-time use (Hutchinson, Baldwin, & Caldwell, 2003; Shannon, 2006; Shannon & Shaw, 2008) including sport and other physically active pursuits (Brustad, 1993; Simons-Morton et al., 1997). Specific to physical activity, parents are believed to be the strongest influence on where and when their pre-adolescent children spend time being physically active (Welk et al., 2003). Parents are considered critical change agents in helping to increase physical activity levels and decrease sedentary behaviors of children who are overweight or obese (Golan, 2006).

While an extensive body of literature exists on the various roles parents play in facilitating their children's physical activity, much of the research uses composite parental measures and masks some of the differences in the ways in which mothers and fathers may facilitate physical activity differently (De Bourdeaudhuij et al., 2005). Other research has investigated differences between mothers and fathers, but results have not found these differences to be significant (i.e., Beets et al., 2006). This presented challenges in reviewing literature on mothers' involvement in facilitating their children's physically active leisure. A review of parents' roles is provided and, where possible, specific roles of mothers as facilitators are identified.

Several studies have found physical activity levels of children often resemble those of their parents (Pugliese & Tinsley, 2007). For example, mothers' television viewing behavior has been associated with lower physical activity in their children (Salmon, Timperio, Telford, Carver, & Crawford, 2005). One study found children of active mothers are twice as likely to be active as children of inactive mothers (Moore et al., 1991). Another study concluded that mothers' role modelling appears to have a notable impact on their sons' physical activity levels (Cleland et al., 2011). Other studies, however, have not found the relationship between a mother's level of physical activity and her child's to be significant (Rosenkranz & Dziewaltowski, 2011; Trost et al., 2003). The mixed results suggest the need to examine factors influencing children's physical activity beyond simply "modelling" behavior.

Children's access to facilities and programs are factors that have been positively and consistently related to children's physical activity (Carver, Timperio, & Crawford, 2008). Sport activities and other community-organized programs often require parents to enroll children and provide transportation (Hoefer, McKenzie, Sallis, Marshall, & Conway, 2001). Mothers are more likely to perform these roles (Davison, Cutting, & Birch, 2003). The time children spend outdoors is also strongly and consistently correlated to physical activity levels (Sallis et al., 2000). Depending on a child's age and where outdoor spaces are located, children depend on parents to provide transportation to and supervision at parks and playgrounds (Sallis, McKenzie, Elder, Broyles, & Nader, 1997).

Parents' own participation in physical activity *with* their child has been found to help increase their child's physical activity levels (Heitzler, Martin, Duke, & Huhman, 2006). Fathers use their own participation to influence their children's physical activity levels (Davison et al., 2003), and correlations have even been found in the time fathers spend being active with their child and weight status (Zabinski, Saelens, Stein, Hayden-Wade, & Wilfley, 2003). Parents who may not be participating in the activity with their child, but are present—to supervise or to watch participation in sports or other physical activities—can contribute to their children having higher levels of physical activity (Duncan, Duncan, & Strycker, 2005; Heitzler et al., 2006). Mothers are more likely to provide these forms of support (Davison et al., 2003; Duncan et al., 2005; Gordon-Larsen et al., 2004; Thompson et al., 2003).

Parental encouragement (i.e., motivational prompts or suggestions for physical activity) is another form of support that has consistently been linked with positive outcomes related to children's physical activity behavior, and could be one of the most influential roles parents can play (Beet et al., 2010). Encouragement from parents prior to and during activity engagement has been positively associated with the intention to be active (Biddle & Goudas, 1996), intensity of activity (Bauer, Nelson, Boutelle, & Neumark-Sztainer, 2008; Biddle & Goudas, 1996), the amount of activity (Cardon et al., 2005), and sport participation (Fredricks & Eccles, 2005).

Influencing children's activity preferences can come in the form of setting rules related to sedentary and active pursuits (Hinkley, Salmon, Okely, Hesketh, & Crawford, 2012). Mothers were found to influence children's leisure time physical activity and sedentary behaviors by monitoring how time was spent and enforcing restrictions on television viewing and electronic media use (Granich, Rosenberg, Knuiman, & Timperio, 2010; Nowicka & Flodmark, 2007). Mothers have also been described as influencing preferences by encouraging participation in active pursuits (Quarmby & Dagkas, 2010; Shannon & Shaw, 2008). Finally, mothers providing children with equipment that promoted physical activity influenced children's leisure time activity preferences (Hinkley, Salmon, Okely, Crawford, & Hesketh, 2011).

## Factors Influencing Parents' Roles as Facilitators

As understanding has developed related to parents' facilitation of their children's participation in physical activity, research has also examined factors that both enable and constrain parents in facilitating their children's physical activity. The literature provides a variety of parent-identified barriers that can (and in some cases have been) classified as intrapersonal, interpersonal (parent's intrapersonal), and environmental factors that affect parents' roles in facilitating physical activity for their children (Dwyer, Needham, Simpson, & Heeney, 2008; Moore et al., 2010).

### Environmental Factors

Cost of participation, transportation requirements (Bevan & Reilly, 2011; Moore et al., 2010; Smith et al., 2010), and lack of opportunity or resources in the community such as facilities and programs (Dwyer et al., 2008; Gordon-Larsen et al., 2004; Smith et al., 2010) affected parents' ability or decision to facilitate their children's participation in *organized* physical activity. Mothers in Bevan and Reilly's study (2011) felt pressure to enroll their children in physical activity programs and felt guilty when it was not financially possible. Mothers indicated that without such programs, they knew their children were not getting enough physical activity. Worthy of noting, however, is that these environmental factors have not been found to consistently affect children's participation in *non-organized* physical activity.

Mothers' perceptions of the quality of neighborhood parks influence their decisions to allow or restrict their children's use (Tucker, Gilliland, & Irwin, 2007; Tucker et al., 2009). Concerns about the safety of environment around the family home (e.g., traffic; stranger danger) caused mothers to limit children's independent play time outdoors and how far from home they could go when, for example, they were riding their bikes (Bevan & Reilly, 2011; Jago et al., 2009). Mothers also identified lack of sidewalks in the neighborhood as a barrier to their daughters' physical activity (Gordon-Larsen et al., 2004).

### Children's Intrapersonal Factors

Parents identify their children's unwillingness to participate in physical activity (Smith et al., 2010) and/or their resistance to participate because of preference for other leisure behaviors (Irwin, He, Bouck, Tucker, & Pollett, 2005; Pocock, Trivedi, Wills, Bunn, & Magnusson, 2010; Sonnevile, La Pelle, Taveras, Gillman, & Prosser, 2009) as challenges they encounter in supporting their children's physical activity. One mother explained, "My daughter prefers to stay home to watch television. . . We encourage her to ride a bicycle, but she refuses to do that" (Dwyer et al., 2008, p. 342). Other mothers indicated the health of their child (e.g., illness, disability) was a barrier to facilitating physical activity for children. Also, as children reach adolescence and are more influenced by peers, mothers find their children's desire to conform to what their peer group is doing during leisure time increases the challenges to facilitate physical activity for their children (Gordon-Larsen et al., 2004).

Many children who are overweight are stigmatized (Latner & Stunkard, 2003), experience social rejection (McCullough, Muldoon, & Dempster, 2009; Strauss & Pollack, 2003), and are victimized by peers through verbal and physical bullying and social exclusion (Curtis, 2008; Janssen, Craig, Boyce, & Pickett, 2004). Negative body image tends to be experienced more greatly by children who are overweight (Ben-Sefer, Ben-Natan, & Ehrenfeld, 2009) and especially adolescent girls (Zametkin, Zoon, Klein, & Munson, 2004) than healthy-weight children. Children who were overweight may also experience physical discomfort (e.g., joint pain, sharp pains in chest) during physical activity (Trout & Graber, 2009). These factors can affect children's interest, enjoyment, and engagement in physical activity and could be additional factors mothers of children who are overweight need to contend with in their roles as facilitators.

### Parents' Intrapersonal Factors

Lack of time was consistently described by parents as a barrier to facilitating their children's physical activity (Sonneville et al., 2009; Smith et al., 2010). Mothers, in particular, described time as affecting their ability to facilitate physical activity and to monitor sedentary behavior such as television watching (Bevan & Reilly, 2011; Hesketh, Waters, Green, Salmon, & Williams,

2005). Lack of time also influenced the extent to which they promoted or encouraged physical activity, acknowledging that if they did not have time to support their children's physical activity, it did not make sense to encourage it (Bevan & Reilly, 2011).

Parents' own attitudes and beliefs about physical activity and sport influence children's participation in both organized and free-time physical activity (Brustad, 1996; Dwyer et al., 2008; Heitzler et al., 2006). Trost et al. (2003) found perceived parental importance of physical activity to have the *strongest* association with parental support. It is likely, then, that parents' valuing of physical activity influences their promotion of physical activity and therefore, their roles as facilitators. In one study, parents who placed high value on their children's school performance identified homework as a barrier to children's physical activity (Davison, 2009). This suggests that how parents value physical activity in relation to other dimensions of children's development could affect their roles as facilitators of physical activity.

Parents' own experiences with physical activity can influence the support they provide their children related to physical activity. Research indicates parents who enjoy physical activity provide greater encouragement (Brustad, 1993; Zecevic, Tremblay, Lovsin, & Michel, 2010). Therefore, lack of enjoyment of physical activity could affect parents in their role as facilitators.

The functional purpose that television and other electronic media (e.g., computer, video games) served as a way to entertain children and free up time for parents to perform other duties and made it difficult for parents to reduce the time their children spent in front of it (Sonneville et al., 2009; Zehle, MingWen, Orr, & Rissel, 2007). Parents acknowledged that it would be difficult to make changes to their own behavior and to encourage family-based changes that would contribute to less television watching and more physical activity (Sonneville et al., 2009). One study found some mothers did not necessarily believe, for example, that watching television from infancy could lead to excessive television viewing in later life (Zehle et al., 2007). Mothers who did discuss the harms were not able to identify alternatives for amusing or entertaining their children. Being skeptical of obesity prevention recommendations and/or being reliant on television as a source of amusement are two factors that may constrain mothers in facilitating physical activity for their children.

## Purpose and Research Questions

Existing research demonstrates that parents play an important role in their children's physical activity levels. While research does point to a number of factors that can enable or constrain parents in their roles as facilitators, few of these studies focus specifically on mothers with children who are overweight. If childhood obesity prevention and intervention efforts are to be effective, understanding what supports or constrains mothers in their facilitation of their overweight children's leisure is critical. The purpose of this study was to deepen understanding of mothers' roles as facilitators and to extend knowledge on the nature of the role in facilitating physical activity for children who are overweight. Two research questions were developed to guide the study. First, how do mothers of children who are overweight define or describe their roles related to their children's physically active leisure? Second, in their experience, what factors both enable and constrain mothers in performing their roles as facilitators?

## Methodology

The research was conducted within an interpretive framework with an emphasis on experience and interpretation. A phenomenological approach (van Manen, 1990) was used to de-

velop an understanding of the mothers' experiences with facilitating physically active leisure for their children who were overweight. Phenomenology involves capturing individuals' descriptions, judgments, experiences, memories, and feelings about a phenomenon. Consistent with a phenomenological approach and the desire to collect "rich" detailed information, face-to-face, semi-structured interviews were used. This interview format allows for the in-depth exploration of issues as experienced and perceived by the study participants (Fontana & Frey, 2005). Furthermore, it allows the researcher the flexibility to prepare a list of sample questions to ask without restricting the specific order or wording of questions.

### **Research Setting: The Paediatric Lifestyle Management Program (LMP)**

The LMP, operated at the University of New Brunswick, served parents of children between the ages of 5 and 16 with a Body Mass Index  $\geq 85^{\text{th}}$  percentile (considered as overweight) beginning in 2004. Parents were either referred by, or sought referrals from their family physician or pediatrician. The program goal was to improve the parents' and children's lifestyle choices and behaviors. The program consisted of an orientation; three group education sessions: health, nutrition, and leisure/physical activity education; and six, 30-minute, one-on-one parent sessions with professionals in each of the three areas. The LMP was the only known obesity intervention program to include a specific component on leisure education. The goals of the leisure education component were to assist parents in 1) assessing their use of free time, 2) assessing their child's use of free time, 3) exploring their child's interests, 4) determining constraints their child faced, 5) determining constraints in facilitating more active leisure pursuits for their child, and 6) identifying strategies for negotiating the constraints.

### **Study Participants**

All parents entering the LMP were invited to participate in this research. To be research participants (in addition to "program" participants), parents needed to give permission for the information shared during the intake and exit interviews and during their one-on-one leisure education sessions to be used for research purposes. All parents who entered the program agreed to be research participants. Between September 2007 and February 2010, 42 parents participated in all aspects of the program: 34 mothers and 8 fathers. For the purpose of this study, the mothers' experiences were the focus of analysis.

Mothers ranged in age from 28 to 49. Twenty mothers were divorced or separated, and 14 were married or living common law (not married, but living in a conjugal relationship for 1 year or more). Their children ranged in age from 6 to 15 years old. Socioeconomic statuses varied. For example, four mothers had postgraduate degrees, while three required social assistance in order to meet the family's basic needs. Twenty-nine mothers were employed, and five identified as stay-at-home mothers. Twenty-two of the mothers struggled with weight issues themselves (had a BMI  $>25 \text{ kg/m}^2$ ).

### **Data Collection**

**Intake interview.** The intake interview took place prior to the group leisure education session and began by asking study participants questions about their employment (e.g., status and nature) and family (e.g., number of children; ages). Understanding the potential effect mothers' leisure and physical activity could have on their role as a facilitator, I sought to understand the mothers' own experiences with leisure in general and physical activity in particular: What do you like to do when you have time available without obligations? How often are you physically active? What do you do for physical activity? What do you enjoy doing for physical activity that you may not be doing currently? Next, I explored the mothers' perspectives on their children's



leisure asking: What does your son/daughter like to do for fun or when he/she has free time? What does he/she do for physical activity? How often is he/she physically active? Are there things he/she no longer does that he/she used to enjoy or participate in? Finally, I inquired about the mothers' roles as facilitators. I asked: What roles do you see yourself playing in terms of your child's physical activity and leisure? What changes would you like to work toward making in your child's leisure and physical activity behaviors? What challenges have you faced and/or do you currently face in helping your child to be physically active? These initial interviews lasted between 20 and 80 minutes.

**Case notes.** Following the interviews, parents participated in between 4 and 6 leisure education sessions (depending on their ability to attend the program regularly). The leisure education session focused on challenges children (including children who are overweight) face related to leisure and physical activity, the benefits of physical activity, and common barriers to increasing physical activity and reducing sedentary behavior. In preparation for the first one-on-one leisure education session, parents helped their children complete a time diary recording the activities of one typical weekday and weekend day. For the second session, parents engaged their children in discussion about the activities they were good at, wanted to improve in, and could be good at if given the opportunity to try. The third session focused on parents' roles in supporting their children's participation. Prior to the session, parents completed an Activity Support Parent Questionnaire (Davison et al., 2003). For the fourth session, parents were asked to complete a Leisure Interest Inventory with their children (Robertson, 2007). Barriers to participation were the focus of the final two sessions. Parents and children identified barriers to physical activity and brainstormed strategies for overcoming these barriers.

Case notes were made after each meeting. Repeated interactions with participants over a four-month period were opportunities to develop rapport, to verify and clarify information shared, and to gain deeper understandings of information shared. For example, parents seldom indicated screen time as a problem in the initial interview. However, after completing a time diary, they often acknowledged that television was a more significant issue than they perceived. As they set goals for reducing screen time, case notes were made on both their success and challenges with this.

**Exit interview.** Finally, mothers participated in interviews after the program was complete. These interviews provided opportunities for them to reflect on their experience with the leisure education process (e.g., learning about their children's interests, exploring barriers) and their experiences with setting physical activity goals and working toward accomplishing them. The following are examples of questions asked: What were the most significant challenges you faced in meeting the goals you set related to your son's/daughter's physical activity? Have there been any changes in how you interact with your child related to the use of free time as a result of the work you have done through the program? What do you think are the most important roles you play in helping your child engage in physical activity?

## Data Analysis

With the participants' consent, each interview was digitally recorded and transcribed verbatim. QSR International's NVivo 6.0 software was used for coding data, searching text, and conducting cross-case analysis. The data (both interview and case note data) were systematically reviewed and coded in stages. Keeping with phenomenology, themes were isolated using van Manen's (1990) sententious and selective approaches. To gain a global sense of the data, I read the transcripts several times immersing myself in the participants' descriptions of their experiences with facilitating physical activity for their child who was overweight. The goal was to cap-



ture the fundamental meaning of the experience for the participant that emerged from the text as a whole. Mothers described three key roles in facilitating their overweight children's physical activity: co-participating, modeling, and supporting their children in being more active. Next, selective thematic analysis identified patterns or themes that contributed to mothers' perceptions of these key roles and their experiences with performing the roles. Each transcript was read, and particularly significant or revealing phrases related to or illustrating the dimensions of the core roles were highlighted (van Manen, 1990). The meanings of these dimensions were considered and interpreted. Data excerpts from initial interview data, from case notes across multiple one-on-one sessions, and from the exit interview provided support for the interpretations. Within each transcript, themes were examined for linkages. Across participants, themes were examined for commonalities.

I conducted this study (and the analysis) as a woman who is not a mother and who was not overweight or obese as a child. I spent 6 years involved in the LMP providing leisure education to parents with a child who was overweight or obese. I interacted with many more parents than those who were the participants in this particular study. Because I engaged participants who were not part of this study, it was important that I "bracket" my views or perspective that came from experiences with other participants and focus exclusively on that experiences and data of participants in this study (Creswell, 2007). My repeated interaction with participants and use of multiple data collection methods (interviews and case notes) helped triangulate the data. I had opportunities to verify and clarify aspects of mothers' experiences and I became a witness to their efforts to facilitate physical activity through goals they set during one-on-one sessions. This provided an opportunity to gain a deeper understanding of the women's experiences with facilitating physical than would have been possible through the initial interview alone.

## Findings

Mothers described their children who were overweight as inactive, not interested in physical activity, or only occasionally physically active. In the initial interviews, mothers generally shared experiences of their efforts and failures to get their children active or increase their children's activity level. An advantage of having repeated interactions with the mothers was it revealed their experiences with facilitating active leisure as layered and complex and that awareness of, and experiences with facilitation roles were not static. Five categories of roles were either explicitly described or analyzed as important: being a role model, co-participating, providing tangible support, offering verbal encouragement, and assisting with interest exploration. Mothers' health, knowledge of their children's interests, divergent family interests, lack of time, concern for their children's experience, and support in facilitating their children's active leisure influenced mothers in their various roles.

### Mothers' Roles as Facilitators

Many mothers discussed feeling a pressure or responsibility to help their children who were overweight to be active. Some mothers discussed many different roles they performed in trying to facilitate active leisure for their children who were overweight. Others only identified one or two roles when asked specifically about their roles, yet their discussions about efforts to facilitate active leisure revealed they had engaged in many other roles. It was evident from their discussions that mothers perceived some roles as more important or influential in helping their children be active. Interestingly, it was most often roles mothers were not performing or perceived they were not performing well which they discussed as being the most important at the initial

interview. As they moved through the program, however, many mothers developed an awareness of the influence other roles played in helping their children be active.

**Being a role model.** Serving as a role model for physical activity was often the first and the most frequently mentioned role that mothers believed influenced their children's physical activity. Modelling physical activity was described as the "ideal" or "the most important role" mothers could play, did play, or tried to play.

Being a role model—that is the most important thing. To be active and let her see me being active. She knows I go running many times a week. We sometimes go for walks together in our neighborhood. (Nancy, mother of 12-year-old girl)

Ideally, being a role model is the best thing you can do and I'm not always the best role model, but that's the most important role and that's why I know I need to get myself more active. (Peggy, mother of 10-year-old boy)

**Co-participating in active leisure with child.** Most mothers mentioned engaging in activity with their children as an important role. Similar to being a role model, co-participation was also held in higher regard than other roles they explicitly identified.

I think that doing things with him are what will make a difference in him getting more physical activity and not gaining more weight. He needs that support and that's the most important way I can support him. (Grace, mother of 6-year-old boy)

**Providing tangible support.** At the initial interview, 11 mothers explicitly identified attending or watching games/activities, financing, and transporting children to physical activity programs or places they could be physically active as roles that were important in facilitating their children's physical activity. When the support questionnaire (Davison et al., 2003) was completed, however, it was evident that all mothers did provide these forms of support to some degree. At the exit interviews, more mothers discussed the importance of devoting money to their children's active pursuits, being physically present when children were active, or finding ways to car pool to activities. Peggy explained, "I gotta show up. He's more interested in going if I show up and watch. There's a lot less argument about going if he knows I'm going to watch".

**Offering verbal encouragement.** Many of the children were not active or had expressed not enjoying physical activity. Recognizing this, eight mothers explicitly discussed the importance of providing encouragement (praising children when they were active, making suggestion for what children could do to be active) to support their children in being physically active. For example, Grace explained, "I will encourage him by saying, 'Why don't you go outside? I'll put the sprinkler on,' or sometimes I will suggest he invite a friend over to play outside with." Many other mothers realized the influence of encouragement during their tenure in the program. Andrea discovered her role in encouraging her 6-year-old son: "He's not naturally going to choose playing outside over TV. He's not. But if I make suggestions, give him alternatives, he will do it. I've experienced that now."

**Assisting with interest exploration.** When asked about their children's leisure interests at the initial interview, many mothers described their children as having primarily passive pursuits. In probing about physical activity interests, some mothers shared their efforts to help their children find something they would enjoy. When asked how they perceived this role they had performed, none described it as important or influential. Vanessa expressed, "I guess I don't see it... it's not as important as being a good role model," and Barb "had never thought consciously about that being something that would make a difference – I would suggest some things, he'd usually

say he didn't want to try so that was that." As mothers moved through the program, they became more aware that identifying activities in which their children were interested was an important step in increasing their physical activity levels.

### Factors Influencing Mothers' Roles as Facilitators

Most mothers explained one of the reasons they were involved in the LMP was for help to better facilitate their children's physical activity. Mothers described experiences with facilitating active leisure for their children included discussions of "things that get in the way." Analysis revealed patterns that linked particular constraining or enabling factors with roles mothers identified. For example, mothers' health issues were only discussed as interfering with their ability to model physical activity and co-participate. Lack of time, however, was linked with co-participation, providing tangible support, and assisting with interest exploration.

**Mothers' health.** One of the most striking findings was the poor health of the mothers in the study. Well over half of the mothers struggled with weight issues themselves (22 participants had a BMI > 25 kg/m<sup>2</sup>; 16 of those with a BMI > 30 kg/m<sup>2</sup>). Carrying extra weight, either at the time of the interview or in the past, resulted in a number of personal health issues (e.g., knee, hip, and back problems; low energy; heart problems; diabetes) that limited the types of personal and family leisure in which mothers perceived they were able to participate with their children.

I can't play Frisbee in the park with my kids. I can't run with my kids. I can't wrestle. I want to play with my kids. I don't want that restriction on them, but it is there. I want us to do things together, but I can't do the active stuff. (Beth, mother of 10-year-old girl)

There are so many things that are just out for the three of us. Bowling. I suppose we could take her and a friend and watch, but we can't do it together. Exploring in a park is out. We can't keep up with her and obviously she can't be off in the woods on her own. She likes to bike and biking hurts my knees and I find it hard on my back...It tends to be movies or reading books together. That's what we do. (Tina, mother of 9-year-old girl)

A couple of mothers believed that their limitations were impacting their children's enjoyment or motivation to engage in physical activity. Claire believed that her 8-year-old son's enjoyment was affected by her inability to participate with him in a meaningful manner.

I have back trouble and knee problems, so there is a lot of stuff I can't do. Like, [son] loves biking, but I can't take him. He'll go up and down the driveway and I watch him, but that gets boring fast. He's kind of lost his interest because he's not having fun like he did when we were out on the trails together – that was more adventurous for him.

Not all the health issues were physical in nature. Three mothers shared that they had been or were being treated for anxiety or depression. Monica shared: "I have suffered from depression and when I do, I don't feel like going anywhere or doing much of anything. That limits her, I know, because she likes to go, go, go." Later in the interview, Monica explained that when her mood was low and she did not feel up to doing things, her 8-year-old daughter watched a lot more television.

Mothers who identified having health issues discussed how their health influenced their modeling of active leisure behaviors for their children.

I'm not much of a role model right now because I'm not in good shape myself. I'm not really showing her a good example. I'm just not active. (Judy, mother of 7-year-old girl)

I want to be a role model, but I'm afraid that it's too late for that. I've had this weight and all the problems that go with it, for her whole life really. She has never seen me active. We've never done anything active together. The best I do is watch her when she is active; cheer her on, but I'm not modeling that and I feel like a bad mother. (Beth)

In addition to Beth, other mothers with health issues equated their own lack of activity with being "bad mothers." Others expressed feeling guilty about their health and the consequences for their children's activity levels, or were concerned that others judged them or blamed them for their children's overweight status.

The mothers with health issues placed high value on modeling and co-participating and appeared to feel discouraged and to undervalue the influence of being present and providing encouragement—roles the research literature identifies as key to facilitating children's physical activity (Beets et al., 2010). The mothers also valued family leisure and their health issues left them feeling that active family leisure was not a possibility for their family.

**Knowledge of interests.** Some children effectively communicated interests in certain activities and mothers described making decisions about their ability to support that interest based on cost to participate (including equipment requirements), location of the activity, and time commitment for mothers (and other adult caregivers) to support participation. For example, Rachel had supported all of her 10-year-old son's expressed interests:

He wanted to try soccer, so we did that, and he wasn't in love with it. Then he wanted to try tennis, and we bought rackets and played around as a family at the court in our neighborhood, and at some point we'll probably put him in lessons. And now he's doing football. He's not sure how he likes that yet. We go cheer him on, though.

Many mothers discovered through the leisure education activities that they were not aware of some of their children's interests, and this had limited them in being able to support their children's participation in physical activity. At the initial interview, Barb discussed her 11-year-old son's interests in physical activity: "He doesn't like sports or any physical activity. Well, he likes watching hockey, and he'd like to be in that, but it's an expensive sport, and I can't afford to put him in that." When Barb's son completed the interest inventory, he indicated interest in five active pursuits: martial arts (judo/karate), skateboarding, bowling, skating, and tennis. In the session following the completion of the exercise, "Barb seemed embarrassed yet relieved to discover previously unknown interests. She wished she'd known earlier, but now feels she has 'something to work with' to increase his activity level" (Case notes, Session 3). At the exit interview, Barb explained, "Suggesting baseball and swimming when he doesn't like those wasn't getting me anywhere, but I didn't know or know how to figure out what he liked".

Most children identified at least one physical activity on the leisure interest inventory that mothers were not aware was of interest. Sarah was surprised to learn her daughter, whom she'd labeled as a "book worm," was interested in skateboarding and rock climbing. Amanda's daughter was interested in martial arts; she had seen a demonstration at school two months prior to doing the inventory but had not mentioned her interest to Amanda. In both cases, the knowledge of interests helped mothers to create opportunities for their children to participate in physically active leisure. At her exit interview, Sarah shared, "I feel more effective in my encouragement, because before, I was encouraging her to do things, but not things she was interested in. I felt like I was doing what I was supposed to, but it wasn't effective."

**Divergent family interests.** In families with multiple children, finding active pursuits everyone enjoyed participating in together was a challenge. It was evident mothers valued family time when they spoke of efforts to create shared, active leisure and motivate participation. At her exit interview, Vanessa explained, "I went to the trouble of getting the info on bowling and telling everyone to save Friday night for a special activity, and then no one wanted to go; they wanted to go to a movie instead." Jade was a single mother, and spending time together with both her daughters together was a high priority. Although she made efforts to suggest and organize active family leisure, not being able to identify a shared interest resulted in changing the proposed and desired activities.

The weekend is really the only time we are all together and I get frustrated...if we could find something we could all participate in harmoniously that would be such a help. I get tired of making suggestions and always having one that doesn't want to and then it's negotiating: 'If you're going skating, drop me off at so-and-so's house,' but the whole point is for us to do something together. Then I back down on the active part and we end up watching movies or going to the mall. (Jade, mother of 8-year-old girl)

Tamara expressed her frustration at trying to organize shared, active family leisure experiences.

[Son] complains from the moment we suggest going to the park for a little hike. Complains the whole way there and while we're walking. He drags his feet. [Daughter] is running ahead and she gets annoyed that he is going so slow. One of us goes ahead with her; the other stays with him (sighs)... it feels like an ordeal. And [daughter] doesn't like bowling—something he does—and you throw your hands up.

In some cases, it was parents whose interest differed from than those of their children who were overweight. Nancy talked about inviting her daughter to run with her, but "she always wants to go swimming instead. You feel guilty, but I hate to give up my run." Mary explained "feeling so guilty" while on summer vacation with her husband and 12-year-old son, "[Son] wanted to try canoeing, but he's too young to go alone and we didn't want to spend an hour paddling around in a boat. [Husband] says we'll find somewhere he can have lessons next summer."

Interestingly, three mothers (all married) appeared less concerned about creating "entire family" active leisure experiences. For example, Sarah explained: "My husband and my [oldest daughter] like swimming, so they do that together when they can, and [younger daughter] and I will go on evening walks together when I have time." In response to the question about family leisure, Denise, a mother with four children in addition to her 7-year-old daughter in the LMP, explained that they do not do anything all together.

It's impossible with the different ages and they like different things so it's divide and conquer. Like, two are out in the backyard playing soccer and my husband might be out there with them. When I have time, I go biking with [7-year-old daughter]; maybe another will decide to come. My husband and the two oldest ski, the rest of us don't.

These mothers do not express frustration about locating activities that met everyone's interests, but do hint that co-participation may not consistently occur when trying to accommodate different interests.

**Lack of time.** During the initial interviews, mothers commonly discussed "not having time" and "finding time" as a barrier to engaging in any leisure (active or otherwise), coparticipating, organizing active family leisure, and transporting children to facilities where they could be active. Time challenges were further experienced and described as mothers developed what

they perceived to be attainable goals related to increasing physically active leisure (e.g., take child to youth swim twice a week; play outdoors for 20 minutes, 3 times a week; explore locations for child to participate in martial arts) and then reported, at the next leisure education session, they had not achieved the goal. Although sometimes the child's own lack of motivation or lack of interest was an issue, most times mothers identified that lack of time or poor time management (both their own and their partners') was the reason a goal was not achieved.

Case notes recorded factors such as "work demands required working at home during the evening and on the weekend," "extra errands to do this week so no time left," "didn't have time to motivate him when he said he didn't want to go," "[sibling's] hockey schedule" and "couldn't find a way to fit it in" as interfering with plans to take a child to a youth swim, kick a soccer ball around in the yard, head to the playground after dinner, or go bowling with their child. Four mothers did not have consistent work schedules week to week and discovered this made establishing a routine or habit of supporting physical activity difficult. Case notes from a session with Beth reported on her efforts to get outside and watch her daughter biking on their street: "She discovered television time for her child gives her time to do the things she needs to get ready for the next day. She's finding it hard to give that up." Other mothers found the increased time needed to monitor their child's activities (e.g., time limits on television, making suggestions for activities) or to co-participate, watch, and provide encouragement left them feeling more time pressed to fulfill their other responsibilities.

Three mothers, at different points in the program, indicated quite honestly that although it seemed like they hadn't had time to take their child to an activity or co-participate, they had not made supporting their child's leisure a priority. They shared what got in the way (i.e., work, a sibling's sport schedule), but believed that if they had made the physical activity of their child who was overweight a significant priority, they would have "made" or "found" time to support their child in being active. Cindy, for example, explained that her 6-year-old daughter loves going to the playground and asks regularly to go but, "I can't be bothered to get off the couch and take her." Cindy went on to explain, "her physical activity hasn't been a big priority".

**Concern for child's experience.** Several mothers described situations in which their children had been bullied or had negative experiences with an activity because their children's skill level was low compared with other children. Those mothers wanted their children to be active, but also wanted their experiences to be "good" ones. They explained wanting to "protect" their children from disappointment or to "avoid" situations in which they predicted their children would experience negative outcomes (e.g., being ridiculed, not being successful, sitting on the bench the entire game). Their concern for the experience most significantly influenced decisions to explore their children's expressed interests. Two mothers were concerned about activities in which they perceived their daughters did not fit with the image associated with the activity.

She wanted to try out for cheerleading because she likes dancing and gymnastics, but I knew she wouldn't make it. You see the girls that are on the squad, what they look like... you don't want her to get rejected. (Faith, mother of 9-year-old girl)

She wants to do the [gymnastics program]. She's really interested in that. I haven't put her in so far... I don't know—she's not very agile and I'm sure that most of the girls are skinny little things and how is that going to affect her self-esteem? She already has self-esteem problems, and I want to protect her from more self-esteem problems. (Denise)

Carol's 8-year-old daughter had some negative experiences with competitive sport. This influenced what activities Carol was prepared to support her daughter in trying:

Basically kids don't need pressure. It's a self-esteem thing. I want her in non-competitive, low-stress activities. If she is interested in an activity one her friends is doing, for example, I check it out, and if there's a competitive angle to it, the answer is 'no'—plain and simple, no matter what the begging or pleading to try it.

Amanda investigated whether organizations had a code of conduct or policies related to bullying. Her perspective at the exit interview was "If they don't, it means they probably aren't making sure it doesn't happen to start with, and if it does happen, they aren't prepared to deal with it. I'm not putting her through that experience again." Amanda added that the search for the right programs had been "tiring."

Sandra's 10-year-old son expressed an interest in swimming, but "I couldn't find classes with kids his age. I don't want him in with 5-year-olds—that didn't work well 2 years ago—but most kids his age have advanced beyond that beginner level. It's an exhausting process." Sandra did investigate private lessons as an option, but it was not affordable.

Children's negative experiences in the past or an awareness of their children's vulnerabilities (e.g., self-esteem) caused mothers to carefully consider the fit between their son/daughter and the activity and, in some cases, the organization. Mothers' perceptions may not have been accurate, but these perceptions influenced the opportunities mothers created or provided for their children to try or to participate in a physical activity in which they expressed interest.

**Support in facilitating physical activity.** Both married/partnered and divorced mothers discussed the role of their current husbands/partners and/or ex-husbands in supporting efforts to increase their children's activity. Many divorced mothers described situations in which their ex-husbands were not supportive of efforts to increase physical activity. Most ex-husbands were portrayed as not always willing to enforce television restrictions or to engage the child in active pursuits during the week or weekend when the child was not with his/her mother.

Obviously it's not something I have control over, but you feel... I guess I feel like, why bother? I try so hard, but his father is... 'you'll grow out of the fat stage, don't worry.' It's tv and video games all weekend most of the time. (Laura, mother of 11-year-old son)

We are not on the same page with her weight at all. Last weekend she was there, he didn't take her to her swim lesson. He's like, 'It's one class. It's not a big deal.' I don't agree, and I'm not— it's not because he's my ex, but that's one of the few times a week she's active in a structured way and learning. She loves it; she needs to be there and developing some skill, but I feel alone trying to turn this around. (Faith)

In other families, mothers identified their partners'/husbands' work schedules or their partners' leisure (e.g., volunteer commitments, gym routine) as making it difficult to consistently facilitate active leisure. Monica explained, "When my husband works late, I've got to do everything—dinner, homework, lunches, and then going for a bike on the trail or even getting over to the playground—I haven't found a way to make it happen." At the exit interview, Susan explained she needed her husband to co-participate with their 12-year-old daughter:

I encouraged her to go snowshoeing with her dad; took her to get the snowshoes, but he likes to go at 8:00 in the morning on weekends; she's still in bed. At 9:00 she's ready, but he doesn't want to wait. It's frustrating because then I'm trying to encourage her to go on her own.

Hanna had encouraged her 15-year-old daughter to try out for the school swim team. Her daughter got cut. She approached the coach asking if her daughter could practice with the team



to give her the chance to be active with her friends three times a week. The coach refused. At the exit interview she commented, “I found that really discouraging because you see stuff about childhood obesity and I’m trying to battle that, but where is the support? You feel the pressure and I’m trying.”

Some mothers expressed it was the support they received from their husbands, friends, and/or parents that allowed them to support (e.g., encourage, register, fund) their children’s physical activity. Monica’s parents paid for her daughter to take skating lessons. Jade’s daughter’s sport participation with one nonprofit organization was sponsored. Sandra’s friend had a pool and would invite her son over, “and then I had something to encourage him—go; have fun.” Beth’s parents were “a huge help” when she wanted to register her daughter for dance. “They agreed to take her and pick her up. If they can’t, one of her friends’ parents will take her and then next week, my parents will drive both the girls.”

At the exit interview, many mothers expressed that they, alone, could not perform all the roles necessary for their children to become more active. Peggy felt “It can’t just be me encouraging him and asking him to turn the television off.” As Kathleen worked to support her 8-year-old daughter in being more active, she realized “I needed to ask friends to car pool, and I have to tell my parents she is only allowed one hour of tv when she’s there after school.”

**Table 1**  
*Factors Influencing the Mother’s Role in Facilitating Physical Activity for a Child Who is Overweight*

Mothers’ Roles as Facilitators	Factors Influencing Mothers’ Roles
Being a role model	Mother’s health, lack of time
Co-participating in active leisure with child	Mothers’ health, lack of time, divergent family interests
Providing tangible support	Lack of time, concern for child’s experience, support in facilitating child’s active leisure
Offering verbal encouragement	Knowledge of child’s interests, support in facilitating child’s active leisure
Assisting with interest exploration	Knowledge of child’s interests, divergent family interests, concern for child’s experience

**Discussion**

Physical activity is a key element in treating childhood overweight and obesity (Nowicka & Flodmark, 2007; Sothorn, 2001). The mothers in this study understood the importance of physical activity for their children’s health and perceived they had a role and responsibility to help their children who were overweight or obese to be more physically active. Because many of the women’s children were not active or not active enough for health benefits (i.e., only active in gym class or swim lessons once a week), mothers’ roles as facilitators involved *changing* behavior as opposed to *supporting established* physical activity behavior. Through the ongoing interactions with mothers over the course of the Lifestyle Management Program, the “work” involved for mothers as agents of change became apparent. Also, facilitating their children’s physical activity was not only about influencing changes to their children’s leisure behavior patterns, but about mothers making and adjusting to changes in their own behavior patterns as well.

Although mothers performed various roles that the literature identifies as influential, role modeling and co-participation were perceived as the “ideal roles” for influencing their children’s

physical activity. They initially overlooked or undervalued other roles they performed or could perform (i.e., providing encouragement, exploring and pursuing children's expressed interests) to increase their children's physical activity involvement. Setting a good example and being engaged in physical activity with their children appeared to be expectations many mothers had of themselves as "good mothers" and may reflect efforts to meet expectations associated with the ideology of "intensive mothering" (Hays, 1996). Consistent with the literature on mothers' leisure and physically active leisure (Brown, Brown, Miller, & Hansen, 2001; Kay, 1998; Miller & Brown, 2005), the mothers discussed lack of time as a challenge in multiple facilitation roles. Mothers had little time for their own leisure, making it difficult for them to achieve their "ideal" of modeling physical activity and co-participation. Yet, those mothers who were active or interested in particular physical activities felt guilty when they did not sacrifice their own participation for that of their child.

Beyond lack of time, mothers' descriptions of their experiences with various facilitation roles offered insight into the limits in their capacity to be responsive to their children's need for physical activity. The limits varied in nature, number, and effect. For example, health challenges limited mothers' capacity to co-participate in some physical activities with their children, and shifting work schedules made it difficult for mothers to transport their children regularly to organized activities. Some mothers were able to adapt their behaviors and interactions with their children to respond to their children's need for physical activity (e.g., organize a carpool to get their children to an activity; spend time outside watching their children play; explore options for activity participation) during their tenure in the LMP. Other mothers experienced a combination of circumstances (i.e., low income, lack of transportation, lack of support from partner) that meant they had to negotiate more challenges to facilitate their children's physically active leisure.

The desire to create and maintain family leisure experiences was strong and supported existing research related to mothers' values related to family leisure (Shaw & Dawson, 2001). Mothers' work to create more active family leisure experiences was not always successful. Sedentary pursuits, such as watching television or movies together, were enjoyable family experiences. Therefore, mothers met resistance when organizing active family leisure or endured family members' expressions of discontent throughout the experience. In these situations, mothers not only were attempting to change the leisure behavior patterns of the children who were overweight, but other family members as well. Not having everyone on board made this more challenging, if not impossible, for mothers.

Children's previous experiences with being bullied in recreation and sport settings or having negative experiences in programs influenced mothers' responses to their children's interests. Mothers wanted to guard their children's self-esteem and protect their children from negative experiences. Unlike mothers in others studies who were concerned about physical safety (Jago et al., 2009; Tucker et al., 2009), the mothers in this study were concerned about their children's emotional safety and well-being. Some mothers described the process of seeking information about programs and attempting to find ones that were a good fit for their children as tiring and exhausting. This common experience among mothers shed light on the work mothers undertake prior to signing up their children for activities. Because mothers are primarily responsible for registering their children for activities (Haycock & Smith, 2012; Shaw, 2008), mothers whose children have negative experiences (e.g., are stigmatized because of weight; have been bullied; sat on the bench rather than playing) may feel an additional responsibility to ensure they do not place their children in programs that may not contribute positively to their development.

Many popular press articles on childhood obesity and some academic literature (Gesell & Karp, 2013, van Zutphen, Bell, Kremer, Swinburn, 2007) describe strategies such as turning the television off as “easy” or “simple” changes parents can make to influence their children’s weight status and increase physical activity. The act of turning off the television may be simple; however, similar to Sonnevile et al.’s (2009) findings, having their children entertained allowed some mothers in this study to fulfill their work and domestic roles. In order to negotiate motherhood, work, and domestic roles, *and* work to increase their children’s physical activity, mothers had to reorganize roles and responsibilities so they could monitor their children’s activities, transport them to activities, or engage in physical activity with their children. Managing this was not easy or simple. Adapting took time and effort, especially when mothers had limited support from others. Suggestions that increasing a child’s physical activity level is “easy” discounts the work involved in making changes and the varied family circumstances that may need to be negotiated in order to make changes. It may also contribute to mothers’ feelings of failure when they struggle to influence and create change.

Interest exploration proved to be an important role in helping their children to be more physically active. Lack of knowledge of their children’s physical activity interests significantly affected mothers in supporting participation in this form of leisure. Although mothers described providing encouragement, their children were often not responsive to their suggestions or motivational prompts, and therefore did not form preferences for physical activities. Many mothers discovered they were encouraging participation in activities in which their children held little or no interest. Mothers’ messages of encouragement may have emphasized the importance of physical activity and communicated to children that their mothers valued it, but it did not lead to participation as intended. Dwyer et al.’s (2008) research categorized child preferences for sedentary activities and refusal to participate in activities parents were encouraging as “child intrapersonal factors” affecting parents’ support roles related to their children’s physical activity. The findings from this study, however, suggest that perhaps parents’ lack of knowledge of their children’s interest could affect their ability to be *effective* in providing suggestions and encouragement that leads to physical activity participation and preference formation. Exposing children who do not express interest in physical activity to a variety of pursuits and assessing their interests may be important for both initiating and maintaining ongoing participation.

## Limitations

Mothers who were part of the Pediatric Lifestyle Management Program were concerned about their children’s health and were seeking help. These mothers’ narratives focused on the struggle to successfully engage their children who were overweight in active pursuits or enough physical activity. Their struggle and perceived lack of success may have motivated their enrolment and participation in the program. Other mothers with children who are overweight may not experience as many challenges in facilitating active leisure and could share narratives that speak more to the factors enabling facilitation.

The sample was not ethnically or racially diverse. These findings may not be transferrable to mothers from different ethnic backgrounds. Research that seeks to understand how ethnicity interacts with mothers’ experiences with facilitating physical activity is needed. In addition, all mothers in the study lived in an urban area or within a 15-minute drive to an urban area. Mothers facilitating leisure in rural communities may face challenges or experience factors that enable their roles as facilitators that women in this study had not experienced.

Finally, because mothers tend to be the parent responsible for their children’s physical ac-

tivity, this study focused on mothers. They shared their experience with and perspective on the involvement of others (e.g., partners, ex-husbands, parents), but the perspectives of those individuals were not collected. Future research that seeks to understand the values, attitudes, and roles of others who may be in a position to support mothers in their roles as facilitators or influence the children's physical activity participation would enhance the knowledge of how mothers' roles in facilitating physical activity interact with others in a position to influence their children.

## Conclusion

The mothers in this study felt responsible to perform various roles in facilitating physical activity for their children who were overweight or obese, including serving as a role model and co-participating in active leisure with their children. However, they experienced difficulties in fulfilling existing work, family, and domestic roles *and* supporting their children's exploration of and engagement in physical activity. Many mothers were able to adapt and facilitating physical activity was incorporated into family life in a way that works for mothers' lives. This process was assisted, in part, by recognizing roles that could be influential beyond role modelling and co-participation. However, without support from others, establishing and maintaining family and child routines that help facilitate physical activity to become a habit or part of daily life was challenging.

Recreation and leisure service organizations may want to offer "try it" opportunities for youth programs allowing children to explore an activity without having to commit. Additionally, providing leisure interest inventories on websites or in recreation program brochures may prompt parents to talk to their children about and identify leisure interests. Childhood obesity intervention initiatives that target parents may want to consider ways to provide ongoing support to parents/mothers during the behavior change process such as providing information about community resources (e.g., physical activity programs, facility schedules and fees), offering opportunities for mothers to share challenges and brainstorm strategies for including physical activities that fit the family's circumstances, and encouraging mothers as they make discoveries or meet goals related to facilitating their children's physical activity.

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