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CHALLENGES AND BARRIERS EXPERIENCED BY PRINCE GEORGE PARENTS IN PROVIDING OPPORTUNITIES FOR CHILDREN TO ENGAGE IN HEALTHY EATING AND ACTIVE LIVING: A MEN'S HEALTH PARENTS PERSPECTIVE

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ABSTRACT

The purpose of this study is to investigate the challenges and successes experienced by parents in providing children with opportunities for healthy living. Focus group interviews were conducted with parents of children 0-6 years to discuss challenges and successes in healthy eating, active living and being screen smart. The focus group interviews were digitally recorded and transcribed. Three main themes emerged from transcripts which include: Barriers to Healthy Living; Parent Involvement; and Child Involvement. It is recommended that the Healthy Families Prince George committee design community initiatives to support families in the Prince George area to achieve optimal healthy living, based on the study results. Upstream social policies are warranted in order to support low socio-economic status (SES) male parents and their families to achieve healthy lifestyle including healthy eating and active living.

Keywords: *focus groups; healthy living; parental role modeling; child involvement; public health policy; food security; men's health.*

Globally, there has been preponderance in sedentary lifestyles and an increase in consuming fast, energy dense foods. Consequently, there has been an epidemic increase in obesity rates in Canada and around the globe; most alarmingly childhood obesity.[1] This change in society, including decreased physical activity, the sedentary nature of recreation time and unhealthy eating behaviours leads to childhood obesity and related conditions.[1] Obesity among children 2–17 years old has increased from 15% in 1979 to 26% in 2004.[2] This means that 1 in 4 children are overweight or obese. This increase has immediate and long-term health effects and imposes a burden on the health care system. Immediate effects include hypertension, type 2 diabetes (T2D), and cardiovascular disease.[2] The direct and indirect economic costs due to obesity and its associated comorbidities lead to decreased productivity and pose financial burden on the Canadian economy.

Obesity is an imbalance between calories consumed and calories expended. Obesity is the interaction of many factors: screen time, unequal access to physical activity, marketing of foods and beverages high in fat

and sugar, increased food availability, and increasing portion sizes.[2] These factors vary from one family to another as each individual child grows up in a unique family environment. The Public Health Agency of Canada (PHAC) 2011 report states that for most children, parents provide the first opportunity for creating physical and socio-cultural environments that promote healthy development in all aspects of a child's life, including physical and mental health.[2] Accordingly, a strategy to prevent childhood obesity is to support families to promote their children to eat healthy and be physically active by creating environments for their children to engage in healthy living.

OVERVIEW OF OBESITY PREVENTION (INTERVENTION) STUDIES

There has been abundant literature on childhood overweight and obesity and its prevention by researchers and healthcare professionals around the World. Most recent data from the Canadian Health Measures (CHMS) survey (2007-2009) indicate that obesity prevalence among Canadian children 6–17-years-old was 9% (obese) and an additional 17% were classified as overweight.[3] This is based on actual measurements of weight and height data to derive body mass index. In another study, there was a significant 2.5-fold increase in obesity prevalence from 1978/79 to 2004 among children and youth 12–17 years of age (a notable increase from 3.0 to 9.4%).[4]

The literature has been replete with studies which explored and examined obesity interventions in various settings; including schools, community, family/household-based, and clinic-based programs.[5] Different types of interventional programs for prevention and management of childhood obesity entail a multidisciplinary approach, particularly in school settings in which children's family are involved. School-based prevention programs have been widely suggested in the peer reviewed literature as the most feasible and effective intervention approach.[5,6] Parents, teachers, and principals represent the best role models to make it easier for children and youth to adopt healthy dietary habits and physical activity (PA) behaviour.

Schools have been considered an important setting for changes in obesity-related behaviour for a few reasons: (a) schools offer physical education programs and expose children to PA; (b) many schools provide health education and a healthy environment; (c) children spend a great deal of their day in schools and many consume at least one meal (breakfast and/or lunch) in their schools; and (d) schools provide a powerful social network of teacher and peers.[7] Educational initiatives toward healthy eating (HE) and active living during childhood/youth years could be a key strategy in the prevention of obesity and type 2 diabetes (T2D) at early stages of the lifespan. Research evidence has shown that it is difficult to treat obesity in adult life through changes in lifestyle rather than doing so in early childhood/youth years.[8]

Obesity prevention needs to be targeted at children who are under 11 years of age. Parents' involvement is a crucial component for any school-based intervention. However, most studies that examined the efficacy of school-based obesity programs had limited parental involvement. As a Western society, particularly in Canada and the United States (USA), we tend to think that parents have a much larger influence only in the home environment (setting) where children are often discouraged from spending long hours of television (TV) and video games, and are reinforced to have healthful dietary patterns and engage more in PA.[9]

In general, school-based prevention/intervention studies have been the predominant type of studies conducted in the childhood obesity literature. Several systematic reviews have been published as well indicating that school-based programs seem to offer the best type of intervention milieu and that future multidisciplinary programs, at the individual/family/community-levels, targeted toward optimizing healthy weights (including healthy eating/HE and physical activity/PA) should use schools as the focal point for interventions.

STUDY BACKGROUND

The *Healthy Families Prince George committee* is a collaborative group of community partners whose goal is to support healthy living among Prince George families, particularly those with children up to 6 years of age. The important issues to *Healthy Families Prince George* that are pertinent to this study are HE, active living, and being screen smart. In accordance with the PHAC 2011 report,[2] the primary goal is to

support families in creating healthy environments for their children. This study aims to provide parents an opportunity to share their successes and express challenges faced in providing their children (0–6 years of age) with opportunities for healthy nutrition and quality PA which would limit the amount of time spent in front of a screen. The study design involved focus group interviews with parents from the Prince George community. The results will be used to guide the work of Healthy Families Prince George committee to support families in the Prince George area.

METHODS

A convenience sample of parents of children (0–6 years) was targeted for inclusion in this study. The targeted participants lived in the city of Prince George, British Columbia. Participants were recruited by posters distributed around the municipality, including the Strong Start program facilities, several elementary schools, the public library, the South Fort George Family Resource Centre, Child Development Center, University Hospital of Northern British Columbia (UHNBC), Northern Family Health Society, College of New Caledonia (CNC), and the University of Northern British Columbia (UNBC). Furthermore, an electronic version of the poster was distributed to many community organizations in Prince George. The study time frame for recruitment and data collection was from January to March 2012. To ensure equal opportunity for inclusion of eligible participants, complementary taxi service to and from the research facility and healthy snacks were offered. These were covered by the research budget. Also, $20 gift cards to the local Superstore grocery market were offered as incentive to each participant. Focus group interviews were offered in the morning, afternoon, and evening so that parents could participate in the sessions that were most convenient to them. A goal of 4 focus group interviews with 10 participants (n=10) each was determined a priori. The only participant demographic information obtained was gender – this was due to the exploratory nature of this qualitative research. The researchers were most interested in successes and challenges experienced by the recruited parents, and the recommendations they make to the community.

The focus group interviews were semi-structured with 5 main questions, and 2 probing questions for each main question used as necessary. Each focus group interview lasted approximately 90 minutes and was digitally recorded in addition to hand written notes. Each recording was transcribed in the program *Express Scribe*. This research study was approved by the Northern Health Research Review Committee, and funding granted by the Healthy Eating/Active Living (HEAL) Network.

RESULTS

A total of 19 participants were recruited; 17 mothers and 2 fathers between January and March 2012. A total of 3 focus group interviews were conducted; 2 with 6 participants and one with 7 participants. From the data analysis, there were 3 main recurring themes which emerged: *Barriers to Healthy Living*, which were challenges experienced by parents; *Parent Involvement*; and *Child Involvement*, which outline successful tools for healthy living in the home. Several sub-themes for each theme also emerged from the focus group data collected.

First Theme: Barriers to Healthy Living

In the focus group interviews parents identified several challenges. For this theme of Barriers to Healthy Living, there are 8 sub-themes which emerged. In the focus group interviews, screens were identified as televisions, computers and video games. The television was the most expressed screen impeding healthy living. It hindered active living because the children were so "glued" to the television that they did not want to do something else. Many parents identified that there was a "fight" to get the children away from the screen and that this was discouraging. Furthermore, the parents found the children struggled to identify other options for activity, so it became the parents' responsibility to provide alternatives to the child. Many parents said that they let their children watch television as a way for them, the parents, to have some quiet time. They felt they were so busy in their day, and this was "a way out." Some parents felt guilty about this – they indicated this was "a lazy parenting technique." However, other parents argued that this was a positive parenting technique, as long

as television time was limited. They felt that this gave them an opportunity and time to "regroup and summon the energy" to interact and have good quality time with their children, thereafter (when television viewing time was "over").

Finding sufficient quality time to spend with children was identified as a barrier to active living and HE. Parents discussed challenges of having the time to go out and be active with the children. For HE, finding the time to go to the store and do a thorough grocery shopping in order to have the healthy foods in the home was a barrier. Furthermore, limited time in food preparation and cooking healthy meals on a regular basis was also identified by parents as a challenge. Limited time was further identified by parents as a barrier to maintaining personal well-being. This is in addition to the 2 aspects of HE and active living being affected by limited time.

The weather, specifically the cold temperatures and snow in the winter months was identified as a major challenge to active living. Participants in focus groups discussed the difficulty to get the children outside for any extended period of time. Also, it led to searching for alternative indoor options for PA for their children, which often cost money, leading to another barrier.

Active living is limited by cost in terms of registering for sports teams or lessons. This expands to equipment costs, trip costs and other costs as a child grows up. Also, the facilities that have the space for children to be active in, such as a gym, have either a rental fee or drop-in fee. Finances are also a barrier to HE; parents felt that healthy foods were much more expensive than processed foods. Many said that it is easier and less expensive to buy the cheap, pre-made food items than to have healthy options available. This impression was expressed by most parents in each of the focus group interviews.

The actual resources being available or not available in Prince George were an expressed barrier. Parents felt there were not a lot of places to take their children to places/facilities where they can be active indoors in the Prince George area. They also felt that facilities with operating hours to fit the family schedule and that the parents felt comfortable exposing their children to in terms of cleanliness and safety were unavailable. Parents who discussed some available programs felt that their children were excluded because of their young age. The most expressed barrier about resources was that they were "unknown". Many parents perceived that they were sure there were free programs available but did not know where or when, and felt that this was particularly an issue for new residents of Prince George, and for new parents.

Transportation played a role in healthy living. The public transit system was an expressed barrier, in terms of its time efficiency and cost. Participants felt that it took too long to get anywhere on the bus and its time intervals were so long that a lot of time was wasted travelling this way. They also felt it was expensive to pay for themselves and for their children to ride the transit bus. Many parents agreed that when living in a city like Prince George, a family needs a car. A car contributes its own financial burden pertinent to ownership, operation, and essential regular maintenance. Transportation barriers caused difficulties to get to facilities for their children to participate in activities and to go to the grocery store to buy food.

Another barrier to healthy living discussed was external influences. External influences were identified as the media promoting high fat, high-sugar products, other people (adults and peers) the child interacts with, and what is made available from the environments the children are in. Parents expressed that they cannot control what their child eats when they are at another person's home, or how much time they watch television. Their children see their peers at school with unhealthy lunches, and in turn want to have these similar foods in their lunches. Furthermore, the media directs the unhealthy foods at the children in the advertisements on the television and on labels of the food products. Peers also influence the child's desire for unhealthy toys, such as video games. Finally, the environment that the children are in influences the children's healthy living behaviours. For example, the kindergarten program has limited gym time and schools allow junk food.

The motivation level of the parents plays a key role in active living and HE for children. Parents described feeling "lazy," being "in a slump" and finding it too difficult because they are dealing with their own issues. Despite children expressing interest in going for a walk, for example, parents said they would not go because

they were feeling lazy. For safety considerations, these parents also noted they did not want to allow their children in the backyard alone. Parents' motivation also affects children participation in community programs. They did not want to take their children out because the parents themselves expressed they were so shy, or had low self-esteem that they did not want to have to interact with other parents or adults. The parents also discussed that motivation is what is needed to "get out of their slumps." It was expressed that one just has to muster up the energy and resources necessary to provide for their children, and there was just no excuse for it.

Second Theme: Parent Involvement

The focus group participants discussed several strategies they have used to create a successful healthy living environment for their children. These ideas encompass the second theme of Parent Involvement. Planning was a strategy used and can reduce the stress of creating healthy environments for children. Planning included having healthy food choices in the home, and having them accessible to the children. Many parents also emphasized meal planning as a tool to ensure they have time to make a healthy meal and that all the ingredients needed would be available.

Related to planning was creating a standard routine in the home environment. Parents described routine around HE as having healthy meals every day and only having "treats" on weekends. In regards to active living, examples include going for a walk or engaging in some sort of PA every day. This also includes registering the children for programs they attend weekly and creating a routine around that. Routine is also important for reducing screen time. Many parents described that having a routine around television viewing/use would limit time spent in front of the screen, and also reduced "the fight" when intervening with television time. A routine around television time involved the children only watching television once they have completed other tasks, such as getting ready for bed. Furthermore, having preset time limits on television use and/or the amount of shows was perceived by parents to be an effective routine around television time. Creating these sorts of routines at a young age leads to it being the "standard norm" for the child. Many parents expressed that once rules and routines are set in advance, they become accepted over time by their children.

Acting as a role model for children was a notion discussed and agreed upon among parents to increase the overall family healthy living lifestyle. Parents could be role models for a specific task, such as eating fruit and vegetables or being active. Being a role model makes the kids want to engage in HE and active living even more. Parents can also lead by example in their everyday life - they suggested avoiding or limiting electronics for themselves, correcting their own poor/unhealthy eating habits and exercising in the home every day. Parents also explained that by role modelling for their children, they now lead healthier lives than perhaps they would if they did not have children.

A successful way to create healthy environments for children was "resourcing." The resourcing concept includes programs and support groups in Prince George for parents and their children, family friendly websites, and parenting strategies. Parents discussed where they can find resources, including specific resources they find helpful or not helpful and their ideas on how to make resources accessible. The most discussed method of attaining resources was by word of mouth from other parents who had used these resources. The most frequently discussed programs were *Strong Start* and *Power Play*. Many parents suggested that resources need to be more readily available and accessible, which would reduce the stress of trying to find them. They indicated it can be as simple as a central website with resources listed online.

Third Theme: Child Involvement

Many parents indicated that they can do things and provide opportunities for the children to engage in healthy living activities, but it is important for the child to actually involve themselves as well. Education is a way the child can become involved. For example, HE education can involve teaching children about the different kinds of fruit and vegetables. This can also be education on ways to be active and how to do it safely. The most discussed method to educate the children was to emphasize what healthy is and that being healthy is a positive thing. By educating the child, they will know and be more aware of healthy

living opportunities as they grow up. Then they can engage without the direct stimulation of their parents.

Given that child engagement is closely tied to education, parents found that their children appreciate choice; so providing choices to promote healthy living behaviours is important. This includes choice in which healthy snacks to have, what to have for dinner and how much they are going to eat. Children can become involved in healthy living activities in the home, such as helping make dinner and snacks, and helping in grocery shopping. Parents felt that this way the children will be able to engage in healthy living behaviours, even when the parents are not watching.

DISCUSSION

This preliminary study demonstrated that parents, particularly low socio-economic status (low SES) parents, experience several challenges in providing opportunities for their children to engage in healthy living, and also identified strategies that parents have developed in order to be successful in creating these environments. This study aimed to identify these challenges and successes so that the *Healthy Families Prince George committee* can direct community initiatives to better support Prince George families.

Active Healthy Kids Canada[10] indicates that 93% of parents reported that public facilities and programs for PA and sports are available. This is contradictory to our study findings, as one of the greatest perceived barriers was limited, unavailable or inaccessible resources for active living. This is perhaps a unique challenge to living in Prince George. A study by Prins, Oenema, van der Horst and Brug[11] suggested that there is a gap between perceived available facilities and what is actually available. These perceptions of the environment depend on individual characteristics and what might be available to individuals , such as transportation. Furthermore, perceptions of environment are influenced by social, informational and interactional factors[11]. For example, participants' view of what is available in Prince George was influenced by their interactions with other participants and learning about new resources in our focus groups discussions. This is how resourcing emerged as a successful tool for healthy living and that there is a need to increase this type of resourcing. One cannot engage in programs that s/he has not been made aware of. Once people become increasingly aware of programs and facilities and can perceive them as available, they will engage more in them.[11] The attainability of these resources, however, is affected by social determinants of health including SES indicators such as education attainment level, household income, employment status, housing conditions, and neighbourhood environmental factors. All of these indicators impact directly or indirectly on food security.

Active Healthy Kids Canada indicates that children in lower income families are less likely to be able to participate in organized sport and PA.[10] This was discussed on multiple occasions in our focus group interviews. Registering for teams or lessons is a significant financial burden on families. Accessing facilities for PA is also affected by accessible and affordable transportation and other resources. Further associated with this theme, household income can also limit families' ability to make HE choices.[1] The PHAC 2011 report also indicates that living in the North can be a significant barrier to HE.[2] A family may struggle to provide healthy options for their children, but within a community there are challenges to provide healthy foods to the families. HE is also influenced by the education attainment level of parents.[1,2,10] Low SES parents may not be fully aware of healthy versus unhealthy options. Therefore, social determinants of health play a vital role in creating healthy living environments for children.

Several barriers emerged as unique challenges to living in the Prince George area. As previously discussed, limited food availability in northern regions to provide for families was a main challenge. Also, transportation may be a unique challenge. Many parents discussed that the transit system in Prince George was insufficient to meet their family needs. This may not be an issue in a larger city with a more integrated transit system in place. Another unique barrier may be the variable weather conditions. Many parents discussed that winter conditions discourage outdoor activities because of the cold temperatures and the amount of snow. Other communities may not experience these types of seasonal variations in weather conditions; hence, not being a perceived barrier for such communities. Our focus group interviews were conducted

in the middle of the winter season. For comparison, similar focus group discussions should be carried out in the spring or summer months to explore if the weather in Prince George is still a perceived barrier.

In the current study, we found that parental interaction and role model support positively influence PA behaviour in children. Trost and colleagues[12] suggest even more fundamental than role modelling is providing instrumental support such as transportation, watching and participating in activities with the child. This was also discussed in our results. Role modelling however is not sufficient per se as it does not necessarily remove the barriers perceived by a child.[12] Parents engaging in instrumental support increase children's self-efficacy perception, which is important to ultimately influence and adopt healthy lifestyle behaviour later in life.[12] Furthermore, families being active together such as visiting parks, walking trails, and playgrounds show reports of children engaging in higher levels of recreational PA, especially outdoors.[13]

Role modelling and parental support, however, are greatly influenced by the barrier of time. Parents expressed the perception of limited time during the day. Thus, finding time to support and interact in this way has been perceived as challenging. Parental motivation and attitudes was another barrier discussed frequently by our focus group participants. A lack of motivation impinges on overcoming the other barriers indicated, and also in engaging the involvement behaviours. Continuous parental motivation is needed to help children achieve their involvement tasks outlined; namely, engagement in healthy lifestyle including active living and HE, and education. Engaging in healthy living behaviours at a young age and integrating it into a routine in the home is what will ultimately lead to healthy lifestyles throughout the rest of early adulthood and later lives.

Routine was a repeated theme that helps to facilitate healthy living. Active Healthy Kids[14] indicate that families that have a daily routine surrounding family meals, adequate sleep and limited screen time had 40% lower risk of obesity and diabetes. In our study, routine was identified as the best way to limit screen time in the home. When routine slipped or there was no routine set, our results indicated that children had greater amounts of television time.

External influences in this study were identified as Barriers to Healthy Living. This was mostly because parents perceived that they had no control over what their child was exposed to, and that this breaks the routine that may be in place. Grandparents can provide their grandchildren with sugary products, they can watch television unlimited, and peers can introduce them to other foods and electronics. Conversely, Jago et al.[15] suggest that external influence in the form of a friend can promote active living. Just as modelling poor health behaviours, positive health behaviours can be influenced by a friend or a peer. Having a best friend correlates positively with PA in the home and neighbourhood.[13,15] This was briefly discussed in our focus group meetings, but not enough for it to become a theme. Perhaps a community direction is to promote PA with friends or peers.

The parents participating in our focus group interviews had many recommendations and suggestions they would like to see from the community that would make healthy living more attainable. These included having more family events, either as a gym drop-in night twice a week, especially made available in the evenings and weekends. They also suggested larger scale community events perhaps once a month. Also, participants suggested community support groups to educate themselves about HE and recipe ideas, or how to encourage PA. Related to this is to make these kinds of events or programs more publicly known. This leads to suggestions of a Facebook page or a website for event posting and networking. Furthermore, they would like to see pamphlets or brochures with information of programs and where to get more information. This includes doctor's offices, especially at immunization time because this gets a large number of parents in.

There are a few limitations to this study. A relatively small sample size (n=19) limits the generalizability of the results to the larger parent population in Prince George. Because of the preliminary nature of the study, however, this is a good starting point to take to the Healthy Families Prince George committee. A second limitation is the fact that only 2 of our 19 participants were fathers. Fathers and mothers may perceive and experience different parenting challenges. If similar research is carried out again initiatives to recruit fathers should be in place. A possible third limitation

is associated with the perceived "unnatural social setting" of a focus group as participants may withhold their personal opinions or conform to popular views of sharing opinions/perspectives that they think the researchers are looking for. This potential of social desirability bias may attenuate study findings in the sense that there may be self-perceived anxiety as to what information to share with other "unknown" focus group participants and researchers. Nonetheless, focus groups can provide in depth discussion of topics and offer rich data because of the dynamics of exchange of ideas among participants. Such data is important to our study.

There has been paucity of research initiatives in rural Canadian communities to support families in creating healthy living environments, as indicated in the Active Healthy Kids Canada report.[10] We found that parents experience a wide variety of challenges in providing children with opportunities for healthy living. They have experienced successes in it as well. For the community to support families, they should help them overcome the barriers and better utilize the tools that parents already have developed. Community initiatives should cater to parental needs as this will lead to better utilization of programs and facilities. Families with low SES residing in Prince George, British Columbia (BC) may experience unique challenges in healthy living. With community support, however, this should foster a rich milieu for children growing up leading active and healthy lives.

Findings from this study have important implications for social and public health policies which may influence upstream factors related to social determinants of health; particularly SES and housing conditions. Food insecurity is a major challenge for poor families suffering from insufficient household income to afford and access healthy food choices. Notwithstanding, food insecurity represents a public health issue for low SES families and communities; in particular rural and remote northern regions in Canada and elsewhere. Effective community action, engagement, and social cohesion can serve as important vehicles for parental and family empowerment/support. Such social support systems for parents and their families can be achieved through creation of better full-time jobs; provision of enhanced opportunities for parental education, and improvement of neighbourhood built environments in which low SES parents and families reside can have profound positive impacts to counter the adverse health and social consequences of food insecurity and inactive living.

Upstream policy measures at the individual (parental), familial (including children; for example early childhood development and education) as well as community (organizational) levels are warranted if we are to improve the lifestyle and quality of life of children 6 years of age or younger.

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