Published in final edited form as:

Can J Diet Pract Res. 2006 ; 67(2): 67–71. doi:10.3148/67.2.2006.67.

Preschoolers' Dietary Behaviours: Parents' Perspectives

PATRICIA TUCKER, MA,

Faculty of Health Sciences, University of Western Ontario, London, ON

JENNIFER D. IRWIN, PhD,

Faculty of Health Sciences, University of Western Ontario, London, ON

MEIZI HE, PhD,

Middlesex-London Health Unit and Brescia University College, London, ON

L. MICHELLE SANGSTER BOUCK, MA, and

Middlesex-London Health Unit, London, ON

GRAHAM POLLETT, MD, MHSc, FRCPC, FACPM

Middlesex-London Health Unit, London, ON

Abstract

Purpose—Preschoolers' dietary intake behaviours are described from the perspective of their parents.

Methods—A maximum variation sample of 71 parents of preschoolers participated in this qualitative study. Ten semi-structured focus group interviews were conducted. Two experienced moderators facilitated all focus groups, which were audio-recorded and transcribed verbatim. Strategies to ensure trustworthiness of the data were employed throughout the study. Two team members independently performed inductive content analysis. NVivo software was used to code the emerging themes.

Results—Parents identified food and food issues as key health-related behaviours among preschoolers. Parents discussed challenges to healthy eating, including time limitations and societal pressures, as well as methods for facilitating healthy food choices, including bribery, education, and being creative with food.

Conclusions—Dietary intake is on the minds of preschoolers' parents. Unfortunately, some methods that parents currently use to promote healthy food choices may be more detrimental than beneficial for children in the long term. Parents' keen interest in their preschoolers' eating habits may make them particularly receptive to learning about and facilitating healthy choices in more behaviourally appropriate ways. Widespread educational messages about the benefits and detriments of various strategies to facilitate healthy eating among preschoolers therefore seem warranted.

INTRODUCTION

Childhood obesity is associated with hypertension, type 2 diabetes mellitus, dyslipidemia, depression, and low self-esteem (1,2). Of Canadian children aged two to 11, 37% were overweight in 1998–99, including 18% who were considered obese. This figure was up from

1994–95, when 34% of two- to 11-year-olds were overweight, with 16% classified as obese (3). With obesity rates on the rise, it is particularly alarming that one in four preschoolers (aged two to five years) has been categorized as obese, especially because current estimates suggest 26% to 41% of obese preschoolers will become obese adults (3,4).

The importance of obesity prevention early in life is underscored by research findings that consistently confirm a correlation between childhood and adulthood obesity (2,5–9). The impact of obesity prevention may be especially potent in the preschool years because many lifelong habits are formed during this time, including the health-related behaviours associated with obesity, namely physical activity and dietary intake (2,10,11).

Parents, especially mothers, play a vital role in their preschoolers' dietary patterns (6,8,10,12,13) and long-term feeding behaviours (14). Because parents tend to have foods in the house that they enjoy, with recurring exposure, children come to prefer and include many of these same foods in their diet (14). Unfortunately, sugar and fat are currently the most familiar and preferred foods in childhood (15). In fact, the previously reported main barriers to preschoolers' healthy eating include the following: parents having insufficient time to prepare healthy meals; parents disliking the appearance, taste, and smell of healthy foods, and parents making unhealthy food choices easily accessible to their preschoolers (16). Not only do parents have the ability to facilitate unhealthy food choices, they also have the ability and influence to facilitate healthy food choices among preschoolers. Exploring parents' opinions, perceptions, and insights about their preschoolers' dietary intake patterns is therefore vital to understanding the role, and potential role, of food in preventing childhood obesity.

The current study was part of a larger obesity prevention study to explore parents' perceptions of their preschoolers' physical activity and screen-viewing behaviours, and what they believed would be an effective program to encourage appropriate behaviours (17–19). The original intention was to focus on physical activity and screen-viewing behaviours only. However, because of the emerging nature of qualitative research, it became clear that food issues were of paramount importance to parents, and time needed to be found for food-related discussions. Parents' unsolicited perspectives were collected on the importance of healthy eating, challenges to healthy eating, and methods for facilitating healthy food choices among preschoolers.

METHODS

Ten semi-structured focus group interviews were conducted across London and Middlesex County. Each group had an average of seven parents of preschool-aged children (2.5 to five years old). A maximum variation sample of 71 parents participated in this study (20). The qualitative method of focus groups was chosen because understanding parents' perspectives is essential to the successful development of an intervention targeting childhood obesity and healthy body-weight promotion. Also, focus groups are an efficient means of collecting insights from many people in a short time (20).

The Canadian Institutes for Health Research funded this project. Ethical approval was obtained through The University of Western Ontario.

Participants were recruited through flyers, information sheets, and site visits at community locations frequented by parents of preschool-aged children. Sites included five community play groups, three daycare centres, one community resource centre, and one workplace. Two of the ten sites were located in rural areas. Sites from different geographic areas were selected to provide a maximum-variation sample. Homogeneous participants were recruited for each focus group, and an overall sample of parents with diverse socioeconomic backgrounds (education level, income, employment status) was recruited.

To facilitate focus group attendance, we provided child care, bus tickets, and a meal for parents and children. Focus groups were also planned at times when parents would normally be at the selected location. Five focus groups needed to be rescheduled because of recruitment challenges. Attempts were also made to recruit a focus group of fathers and parents from an ethnic minority. Unfortunately, not enough participants were recruited. Participants included mostly mothers, and participation from minority groups was limited.

Participants were asked about their children's physical activity and screen-viewing, and what they believed would characterize an effective program to encourage appropriate screen-viewing and physical activity behaviours in pre-schoolers. Although nutritional habits were not an intended area of research, open-ended questions revealed that these were a very important topic for parents. Questions included the following: "Is there anything else you would like to add or suggest as important aspects affecting childhood obesity besides physical activity and screen-viewing behaviours?" and "What do you think is the most important thing we discussed today?" In response to these questions, many parents presented food-related concerns within the focus groups, and the moderators made time for and facilitated these discussions.

All focus group meetings were facilitated by one of two experienced moderators and lasted for approximately 60–90 minutes. Upon completion, participants were asked to fill out a demographic form. Focus groups were audio-recorded and transcribed verbatim. Because of the emerging nature of qualitative research, the focus group questions evolved during the first four focus groups. Many strategies were employed to ensure data trustworthiness (Table 1). Saturation was reached by the tenth and final focus group (20).

Data collection and analysis took place simultaneously with a combination of the editing and template-organizing styles outlined by Miller and Crabtree (21). A minimum of two team members independently conducted inductive content analysis on each transcript and compared their findings. NVivo software was used to code and categorize emerging themes (QSR International, Victoria, Australia, 2002). Following the coding of all transcripts, data were examined for similarities and differences across the interviews and emerging themes were identified. A summary of the analysis was prepared and discussed.

The research team did have expectations and assumptions for this research, including the assumption that socioeconomic status (SES) would account for some variation in parental responses. During the research process, the research team met after all focus groups to

discuss the findings. The researchers noted that parents were very keen, that all were concerned about their preschoolers' health, and that parental responses varied by differing SES.

RESULTS

Table 2 provides a description of study participants. Parents identified food and food issues as key health-related behaviours among preschoolers. Parents discussed challenges to healthy eating. These included time limitations and societal pressures, and methods for facilitating healthy food choices, including bribery, education, and being creative with food. Participants from the lower SES group (annual family income <\$24,999/year) voiced nutrition concerns similar to those of other parents, but just getting food on the table for their children was a more pressing priority.

Importance of healthy eating

With no focus group questions designed to ask about food, its importance was made clear by the numerous participants who introduced, without prompting, dietary intake as a key health-related behaviour among preschoolers. One participant said, "The bottom line is that the food thing has to be addressed.... Absolutely, it's a key issue." In fact, while some parents described physical activity, screen-viewing, and food choices as three equally important components, others suggested that nutritional choices were the most important aspect of preschoolers' health-related behaviours, especially with respect to obesity. The following quote typifies this sentiment:

And preventing obesity is more than just how much TV they're watching or how energetic they are. It's also about their diet. In fact, I'd probably say that it's equally as important, the stuff that they're eating and the stuff that they're doing to burn off the calories and fat. So if people are eating all kinds of fats then they're going to be obese, no matter how active they are.

Challenges to healthy choices

Time—As a result of having their preschoolers enrolled in physical activities, parents explained that the limited time left over required them to compromise on other health-related activities, and, more specifically, on healthy eating. Many parents suggested that there simply was not enough time in their busy lifestyles to facilitate their preschoolers' various physical activities *and* provide them with a healthy meal. The most common, yet convenient, unhealthy food choices to which parents referred were fast-food restaurants. For example, one parent stated:

Sometimes we don't even have home-cooked meals in the evening; I'm sorry, I can't do it. I can't get my three-year-old and my four-year-old to skating, get home, have supper ready early in the evening, and get them to bed. It's just not going to work. So I end up at McDonald's, or Wendy's, or Kelsey's, trying to feed them their supper so they can go to skating.... [s]o I understand that it's hard.

Similarly, another parent said, "It's hard, so you almost give up good eating for activities.... So they either eat good and don't get a good activity, or you get a good activity and you eat

McDonald's." Participants expressed frustration with not being able to "do it all"; choosing between healthy eating and physical activity was clearly a challenge.

Some parents suggested that a choice between healthy eating and physical activity was not needed; preparation is key for "doing it all." Constantly planning, preparing meals, and keeping a well-stocked refrigerator enabled these parents to manage both healthy eating and physical activities for their preschoolers. Parents recommended the following: "[P]repare ahead, like make a casserole the night before and have it ready to go or double the amount and freeze it so you can take it out another night when you are in a rush.... [I]t's about planning" and "Yes, you need to have a lot of stuff ready to go in your fridge. A lot of it is about planning..."

These parents deemed worthwhile the extensive time needed to plan and prepare meals. They refused to choose between their preschoolers' physical activity and healthy eating.

Societal pressures—Parents expressed that nutritious eating was important not only because they wanted their preschoolers to grow up healthy, but also because they wanted to protect their children from the psychological torment associated with being overweight. As one parent said:

[O]ur society has put it that fat people and fat kids... [are] not accepted. I mean, I grew up chunky in school and it was a big thing. Everybody was like, "You're fat, you're fat...." I don't want her to go through that.

Participants explained that society has placed a strong emphasis on being thin, and yet society's food quality contributes to the obesity problem. One parent stated, "[W]hat you're hearing in society is... 'obese, obese, obese.'... [F]ood is now processed; there's a lot of junk available."

Parents felt that the social stigma of obesity may have psychological ramifications for children. This, combined with easily accessible junk food, will only continue to increase the problem of obesity.

Facilitating healthy food choices

Bribery—To achieve the desired outcome of having their preschoolers eat healthy foods, many parents revealed that they use unhealthy food as a bribe. Although the tactic was against what they felt was "right," some parents relented and used bribery because it was the only thing that worked. One parent said, "We try everything... but often it's bribery. You know, if you want a cookie then finish your carrots, but I'm not a big fan of that, either."

Other parents felt that the tactic was *only* positive; food bribery was an easy and effective method to encourage healthy eating among their preschoolers. One mother acknowledged her support for bribery when she said, "I mean, it doesn't have to be a big treat, but three chocolate chips is a big deal for [a child]. So she'll finish her carrots or she'll do whatever it takes..." Although there was debate about the effectiveness and appropriateness of using bribery, focus group participants revealed that many of them currently used it to increase their children's consumption of healthy foods.

Education—The majority of parents found acceptable the creation of household boundaries or rules that allowed low to moderate consumption of unhealthy foods (e.g., potato chips, cookies, candy). Other parents felt that boundaries were unnecessary, as long as their preschoolers were educated about the benefits and detriments of consuming different foods.

Unfortunately, the nutrition education that some parents are passing along to their children is not nutritionally sound. For instance, one parent, who discussed providing her child with healthy snacks, said:

[H]e'll tend to want a banana muffin because I make banana muffins, I make cookies. He helps me with a lot of stuff. Like yesterday he helped me make Halloween cookies, but that's his sweet. Like for candy, he thinks Gummy Bears are candy.

To be clear, this mother did not perceive Gummy Bears to be candy.

Armed with an accurate understanding of healthy versus unhealthy foods, some participants felt that both parents and preschoolers would choose healthy options. For example, one parent said, "[It] comes down to education because the people don't know, they just don't know.... [A] lot of people think they're doing the right thing and they're not." Parents expressed the need to provide *both* children and parents with nutrition education so that healthy choices can be made.

Creative solutions—The value of being creative with food was shared by parents who purposely tried to make healthy foods, such as vegetables, look appealing and fun for their preschoolers. One parent outlined this approach:

I [won] this book... off TV. It was two dietitians on TV talking about kids eating. And it said try to make food more appealing, do things with the food. Like if kids don't like their vegetables, get cherry tomatoes. When you cut the carrots don't cut them long, cut them round, make the nose, get green peppers and make them a smiley face. I found that when you make the food more interesting looking or do different things with it, they will tend to try it.

Another parent described a similar approach:

[Parents are] at a loss as to what to pack in lunches. I actually did find a *Company's Coming* book that is diet lunches but it's kid-friendly snacks that are fun for them to eat but it's nutritious stuff....

Preparing healthy food with various shapes, colours, and configurations makes it more fun and appealing to preschoolers. This therefore is effective for increasing their healthy eating.

DISCUSSION

Without any prompting to talk about food, parents introduced and stressed the importance of healthy eating habits during the preschool years. Having too little time, and societal impacts were revealed as major challenges to facilitating healthy eating among preschoolers; bribery,

education, and being creative with food were viewed as effective methods for facilitating healthy eating.

This study indicates that parents view nutrition as a vital component of their preschoolers' health-related behaviours, and that parents face challenges in providing their pre-schoolers with both physical activities *and* healthy meals. Parents in the current study worried about their children's nutrition and struggled to find alternatives to unhealthy yet easy food choices. Nutrition education for *both* parents and children is the essential next step for promoting healthy eating among preschoolers.

Our findings are similar to previous researchers' in terms of parents' increasing reliance on fast food in today's fast-paced society (14,16). Our finding that some parents were comfortable with their preschoolers' consumption of unhealthy foods, as long as they were educated about healthy and unhealthy foods, is of concern; continued exposure to unhealthy foods increases children's preferences for these foods (14). Consequently, children may come to like what is familiar to them, and although their parents have explained that certain food choices may not be healthy, the preschoolers may have a learned preference for these unhealthy foods (12,15). Parents need to be made aware that merely educating preschoolers about healthy choices is not sufficient to instill healthful eating patterns; being mindful and purposeful about the foods to which children have access is crucial.

Parents commonly used bribery to entice preschoolers to eat more nutritious foods, and this finding is similar to that of previous research (12). Despite the immediate benefit of successfully getting preschoolers to consume healthy foods, using unhealthy food as a reward can actually increase the child's preference for the unhealthy food. In turn, this can deregulate the child's ability to self-control hunger (8–9,12). Overconsumption and overweight are likely to result from this cycle. Parents might consider fun and attractive food presentation as a viable alternative for facilitating healthy eating among preschoolers.

We encourage future researchers to consider the current study's limitations. Specifically, the use of only one data collection method provides room for bias and inaccuracy, despite the use of many strategies to ensure the trustworthiness of the data. These strategies would be further enhanced through the use of in-depth interviews to provide a better understanding of parents' perceptions.

In addition, because the intended focus of this research did not include food, no previously developed food-related questions were available. Had we developed food-related questions before our focus groups, we likely would have uncovered even more information about parents' insights into their preschoolers' eating behaviours. However, regardless of these limitations, the current study offers valuable insights into parents' perceptions of their preschoolers' dietary behaviours.

RELEVANCE TO PRACTICE

Understanding parents' perceptions of their preschoolers' dietary habits is an important first step in the development of effective dietary intervention strategies leading to better nutritional habits. This study has significance for program planners and dietitians because it

identifies current barriers that prevent parents from providing their preschoolers with healthful food choices. Health education interventions are a viable way to increase parents' awareness of current unhealthy eating habits, and provide strategies to foster more healthful eating among their preschoolers.

Acknowledgments

This study was funded by the Canadian Institutes of Health Research (CIHR). The authors are thankful to Ms. Charlene Beynon, the director of the Public Health Research, Education and Development (PHRED) Program at Middlesex-London Health Unit, for her continuing support throughout the research project. The authors also are appreciative of Ms. Susan Buitinga, administrative assistant for the Bachelor of Health Sciences Program, for all of her assistance throughout the project.

References

1. Krebs NF, Baker RD, Greer FR, et al. Prevention of pediatric overweight and obesity. *Pediatrics*. 2003; 112(2):424–30. [PubMed: 12897303]
2. Stolley MR, Fitzgibbon ML, Dyer A, et al. Hip-Hop to Health Jr an obesity prevention program for minority preschool children: baseline characteristics of participants. *Prev Med*. 2003; 36:320–9. [PubMed: 12634023]
3. Statistics Canada. [Accessed 25 May 2004] The Daily – National Longitudinal Survey of Children and Youth: Childhood Obesity. 2002. Available at: www.statscan.ca/Daily/English/021018/d021018b.htm
4. Atkin LM, Davies PS. Diet composition and body composition in preschool children. *Am J Clin Nutr*. 2000; 72:15–21. [PubMed: 10871555]
5. Baughcum AE, Burrow KA, Deeks CM, et al. Maternal feeding practices and childhood obesity – a focus group study of low-income mothers. *Arch Pediatr Adolesc Med*. 1998; 152:1010–4. [PubMed: 9790612]
6. Baughcum AE, Chamberlin LA, Deeks CM, et al. Maternal perceptions of overweight preschool children. *Pediatrics*. 2000; 106(6):1380–6. [PubMed: 11099592]
7. Davis K, Kaufer-Christoffel K. Obesity in preschool and school-age children. *Arch Pediatr Adolesc Med*. 1994; 148:1257–61. [PubMed: 7951803]
8. Jain A, Sherman SN, Chamberlin LA, et al. Why don't low-income mothers worry about their preschoolers being overweight? *Pediatrics*. 2001; 107(5):1138–46. [PubMed: 11331699]
9. Reed DB. Focus groups identify desirable features of nutrition programs for low-income mothers of preschool children. *J Am Diet Assoc*. 1996; 96(5):501–3. [PubMed: 8621876]
10. St Jeor ST, Perumean-Chancey S, Sigman-Grant M, et al. Family-based interventions for the treatment of childhood obesity. *J Am Diet Assoc*. 2002; 102(5):640–4. [PubMed: 12008987]
11. Taras HL, Sallis JF, Patterson TL, et al. Television's influence on children's diet and physical activity. *J Dev Behav Pediatr*. 1989; 51(4):176–80.
12. Drohan SH. Managing early childhood obesity in the primary care setting: a behavior modification approach. *Pediatr Nurs*. 2002; 28(6):599–610. [PubMed: 12593345]
13. Orlet Fisher J, Birch LL. Fat preferences and fat consumption of 3- to 5- year-old children are related to parental adiposity. *J Am Diet Assoc*. 1995; 95(7):759–64. [PubMed: 7797805]
14. Golan M, Crow S. Parents are key players in the prevention and treatment of weight-related problems. *Nutr Rev*. 2004; 62(1):39–50. [PubMed: 14995056]
15. Birch LL, Fisher JO. Development of eating behaviors among children and adolescents. *Pediatrics*. 1997; (3 Pt 2):539–49.
16. O'Dea JA. Why do kids eat healthful foods? Perceived benefits of and barriers to healthful eating and physical activity among children and adolescents. *J Am Diet Assoc*. 2003; 103(4):497–500. [PubMed: 12669014]

17. Irwin JD, He M, Sangster Bouck LM, Tucker P, Pollett GL. Preschoolers' physical activity behaviours: parents' perspectives. *Can J Public Health*. 2005; 96(4):299–303. [PubMed: 16625802]
18. He M, Irwin JD, Sangster Bouck LM, Tucker P, Pollett GL. Screen viewing behaviors among preschoolers: parents' perceptions. *Am J Prev Med*. 2005; 29(2):120–5. [PubMed: 16005808]
19. Tucker P, Irwin JD, Sangster Bouck LM, He M, Pollett GL. Efficacious interventions for preschoolers' physical activity and screen viewing behaviours: parents' perspectives. *Obes Rev*. 2006 In press.
20. Patton, MQ. *Qualitative research evaluation methods*. London, UK: Sage; 2002.
21. Miller, WL., Crabtree, BF. Clinical research: a multimethod typology and qualitative roadmap. In: Crabtree, BF., Miller, WL., editors. *Doing qualitative research*. 2. Thousand Oaks, CA: Sage; 1999. p. 3-30.
22. Guba EG. Criteria for assessing the trustworthiness of naturalistic inquiries. *Educ Communic Technol*. 1981; 29(2):75–91.
23. Guba, EG., Lincoln, YS. *Fourth generation evaluation*. London, UK: Sage; 1989.

Table 1

Measures taken to ensure data trustworthiness (modified from 22,23)

Credibility – Member checking was done during and at the end of each focus group to ensure that the researchers correctly understood participants' responses.   Dependability – Following each focus group, four of the five research team members met to debrief and summarize each focus group; detailed minutes were recorded. Any biases were voiced, recorded, and considered to ensure that the analyses were not influenced by researcher bias. Detailed information was documented for the purpose of an audit trail.   Confirmability – Two researchers performed inductive content analysis. Upon completion of independent coding, the two researchers compared their analyses. Data were examined for similarities and differences across the interviews, and emerging themes were identified. A summary of the analysis was prepared and discussed. To enhance the confirmability of the study, the fifth team member independently reviewed all ten transcripts and engaged in peer-debriefing sessions with the other members; this was a final step in the analysis and interpretation.   Transferability – The research process has been documented in detail, thus enabling potentially interested parties to determine whether our results are transferable to other settings.   Member checking – A record was kept of the participants' agreement that the researchers understood what was said.

Table 2

Demographic characteristics of focus group participants (n=71)

Annual Family Income	%
\$0–\$24,999	20
\$25,000–\$59,999	32
\$60,000–\$99,999	35
\$100,000	13
Highest Education Level	
High school	16
College	45
University	40
Current Employment Status	
Part-time	23
Full-time	42
No paid employment	35