

# An Investigation of Adults' Everyday Experiences and Effects of Food Insecurity in an Urban Area in Canada

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## ABSTRACT

To document the experience of adult food insecurity in an urban context, a community-university research collaboration conducted a qualitative study of adults' personal experiences of food insecurity and its perceived effects on aspects of health, using individual interviews with food-insecure adults. The study was designed to gain understanding of experiential knowledge and to relate respondents' experiences to an extant conceptual model (Campbell, 1991). Respondents reported insufficient access to food and experienced personal distress, frustration, and despair, which they linked to food insecurity. Food insecurity affected participation in typical social activities and contributed to feelings of isolation and alienation.

**Keywords:** food security, food insecurity, hunger, social isolation, grounded theory

According to the definition in *Canada's Action Plan for Food Security*, "Food security exists when all people at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and preferences for an active and healthy life" (Agriculture and Agri-Food Canada, 1998, p. 9). Conversely, food insecurity is experienced when regular access to nutritious food is limited or variable because

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We acknowledge with many thanks the respondents in the study. We also thank Marguarite Keeley of Centretown Community Health Centre; Moe Garahan and Cliff Gazee of Just Food, Ottawa, for their advice and constant support; and the assistance of Alexandre Bélanger and Emily Lecompte, University of Ottawa. We also acknowledge with thanks the many community and university collaborators who contributed to the conception, planning, and implementation of the "Ottawa Food Study." We thank three anonymous reviewers and the journal editors for their very helpful comments.

Funding for the study was provided by the University of Ottawa Initiatives for New Research Directions and by the Faculty of Medicine and the Faculty of Social Sciences, University of Ottawa, Ottawa, Ontario. At the time of writing, Vivien Runnels was supported by a Social Sciences and Humanities Research Council Doctoral Award and a University of Ottawa Excellence Scholarship.

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of high prices, low income, lack of transportation, or inadequate food distribution, or when accessing food becomes secondary to other urgent considerations such as paying for shelter (Armstrong, Dorosty, Reilly, Child Health Information Team, & Emmett, 2003; City of Ottawa People Services Department & Ottawa Food Security Group, 2001; Food and Agriculture Organization, 2003; Kalina, 1993).

Poor or inadequate nutrition is closely associated with the experience of food insecurity. Many of those living in food-insecure households struggle to obtain enough food to meet their needs, and the food that they can afford is limited in selection and nutritional adequacy (Armstrong et al., 2003; Kendall, Olson, & Frongillo, 1996; Kirkpatrick & Tarasuk, 2003, 2008; McLaughlin, Tarasuk, & Kreiger, 2003; Vozoris, Davis, & Tarasuk, 2002). Food insecurity has been linked to both undernutrition and, paradoxically, overnutrition.

In the former, eating limited amounts of nutritionally insufficient and poor-quality food may result in low levels of nutrients that are essential for good health (Adams, Grummer-Strawn, & Chavez, 2003; Armstrong et al., 2003; Martin & Ferris, 2007; Parker, 2004; Starkey, Gray-Donald, & Kuhnlein, 1999; World Health Organization, 2000). Overnutrition, on the other hand, occurs from eating energy-dense and nutritionally insufficient food that can lead to obesity, overweight, diabetes, lower immunity, osteoporosis, hypertension, and heart disease (Adams et al., 2003; Cook, 2002; Kirkpatrick & Tarasuk, 2008; Popkin, 2002).

Approximately 9.2% of Canadians report household food insecurity; this represents 1.1 million households (Health Canada, 2007). The experience of food insecurity is closely associated with the financial security of the household (Rose, 1999; Tarasuk, 2001, 2005): as household income decreases, the rate of food insecurity increases (Che & Chen, 2001; Ledrou & Gervais, 2005). Some subpopulations, including households headed by a lone parent (particularly by a female), households with children, income assistance recipients, renters, people with less than a high school education, and off-reserve Aboriginal people, are more likely to report food insecurity (Che & Chen, 2001; Health Canada, 2007; Ledrou & Gervais, 2005; McIntyre, Connor, & Warren, 2000; McIntyre et al., 2002; Rainville & Brink, 2001; Toronto Public Health, 2006; Vozoris & Tarasuk, 2003), and to be identified as nutritionally vulnerable (Power, 2004). In addition, overrepresentation of racialized groups and immigrants in low-paying occupations has implications for their ability to acquire sufficient food (Teelucksingh & Galabuzzi, 2005).

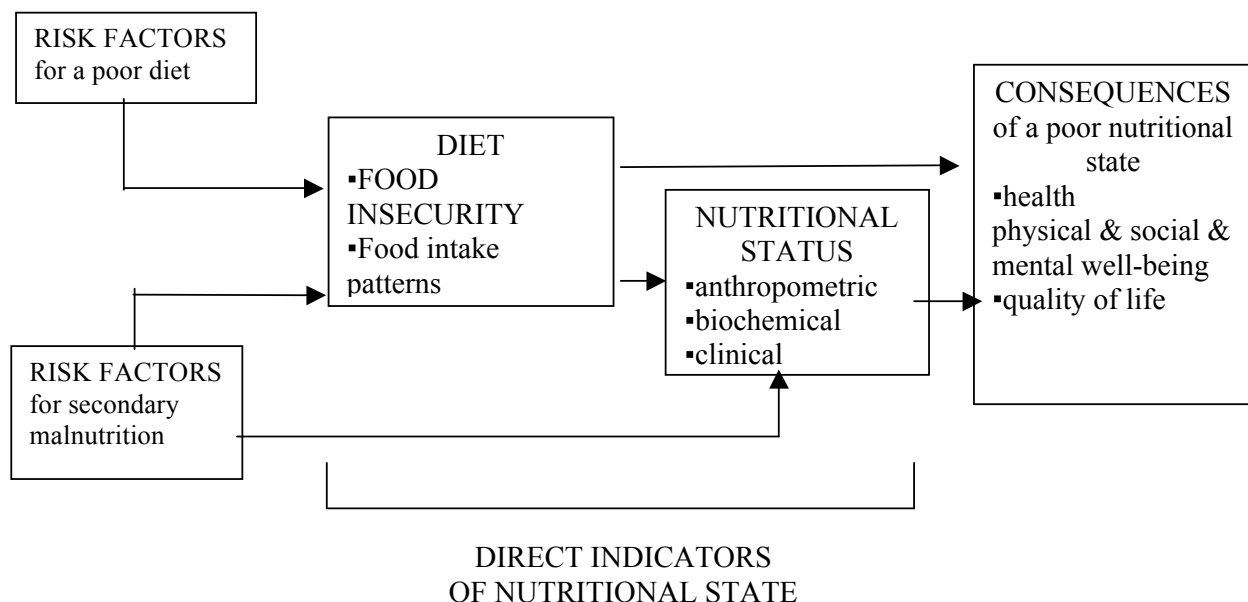
Individuals in food-insecure households are more likely to rate their health as being fair or poor, have poor functional health, suffer from multiple chronic conditions, have major depression and distress, and report poor social support compared to those in food-secure households (Che & Chen, 2001; Health Canada, 2007; McIntyre, 2003; Vozoris & Tarasuk, 2003). A qualitative study of food-insecure parents in Quebec reported respondents' feelings of anxiety, depression, loss of dignity, lack of control, distress, and alienation (Hamelin, Habicht, & Beaudry, 1999). However, with the exception of Hamelin and colleagues and a few other small-sample studies, the everyday experiences of low-income households and welfare recipients living with food insecurity in Canada are not well documented in the academic literature (Dachner & Tarasuk, 2002; Hamelin et al., 1999; Lightman, Herd, & Mitchell, 2008; Lightman, Mitchell, & Herd, 2009; McIntyre, Williams, & Glanville, 2007; Scruby & Rapaport Beck, 2007).

Although the overview of the literature has shown an association of low income and food insecurity and effects of food insecurity on physical health, there has been little theoretical work linking food insecurity and other consequences, such as effects on individuals' emotional states, perceptions of personal health,

and social interactions. In a seminal article, Campbell (1991) proposed a framework that links food insecurity with health through both indirect and direct pathways (Figure 1). Food insecurity can influence health indirectly through insufficient food intake and inadequate nutrition. Compromises made in dietary choices may also lead to nutritional inadequacy (poor diet), and subsequently poor health. It has also been theorized that food insecurity influences health in ways that are not mediated by nutritional status, but are direct consequences of food insecurity. These direct consequences are the impact of food insecurity on physical, social, and mental health and well-being and quality of life (Campbell, 1991), which has been documented elsewhere in the literature (Hamelin, Beaudry, & Habicht, 2002).

Food insecurity is a significant inequity that impacts the lives of many disadvantaged Canadians (Dietitians of Canada, 2005). This knowledge motivated the development of a community-university research collaboration to research local food insecurity. Campbell's (1991) framework of food insecurity provided a basis on which to design the study and explore the identification and experience of the direct impacts of food insecurity for food-insecure adults. The main research objective of the study was to gain an in-depth understanding of the relationship between food insecurity and different components of individuals' health. Within this larger research objective, our goals were to obtain a better understanding of food insecurity in the local context, and to report the findings back to community partners for their use in informing interventions, policy discussions, and advocacy efforts.

**Figure 1**  
**Logical Status of Nutrition-Related Indicators**



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To answer the research question “How is experience of food insecurity related to physical and psychosocial health?”, a qualitative research design was selected because qualitative methodologies and qualitative data are “fundamentally well suited for locating the meanings people place on events, processes and structures of their lives . . . and for connecting these meanings to the social world around them” (Miles & Huberman, 1994, p. 10). Grounded theory was selected as the methodological guide for the research design (Charmaz, 2006). According to Charmaz, “grounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories ‘grounded’ in the data themselves” (Charmaz, 2006, p. 2). A grounded theory approach would enable us to gain insight directly from people who experienced food insecurity, use and interpret their data to ground our analysis, and subsequently relate our analysis and answers to the research question to an extant conceptual model (Campbell, 1991). We chose individual interviews for primary data collection.

## METHOD

### Participants and Recruitment

A sample of  $N = 30$  self-identified food-insecure participants were recruited for the study. Eligible participants reported that they (a) had problems getting enough food for themselves and/or their family, (b) were responsible for the budget allocations, food acquisitions, and/or food preparation in the household (assuming that adults who were responsible for these were more likely to have knowledge of food insecurity), (c) were at least 18 years of age, (d) were able to have a conversation in either English or French, and (e) resided in the Ottawa region. Study recruitment was undertaken using poster and brochure advertisements at four sites: a community health centre, two food distribution sites, and a social housing site. The screening questions and the placement of our recruitment poster in locations where people seek direct help or information about acquiring food were designed to enhance the likelihood that members of the population who have lived experience of the impacts of food insecurity would become aware of the study and would select themselves into it.

### Data Collection

**Semi-structured interview.** The semi-structured interview questions were developed by a multidisciplinary research team with professional, academic, and community expertise in research based in food insecurity and community settings. Drawing on research conducted by Hamelin et al. (2002), the interview included open-ended questions relating to the experience of food insecurity, household experience of lack of food, and the perceived impacts of food insecurity on the health of respondents and other members of their household. Closed-ended questions concerning sociodemographic characteristics and food insecurity status were used to describe the sample of people we interviewed and possible contributors to food insecurity. The interview is considered to have face validity based on the relevance of the content to concepts and common experiences of food insecurity. (See Appendix for a selection of qualitative interview questions).

**Measure of food insecurity status.** The USDA Core Food Security Module (CFSM) was embedded in the interview to quantitatively evaluate the food insecurity status of participants’ households. It was also used to verify that we had recruited participants from the intended population

The CFSM is designed to measure the severity of household food insecurity in the past 12 months (Hamilton et al., 1997). The module consists of 18 items that assess the severity of household food insecurity on the basis of five general types of household conditions, events, and behaviours. The questionnaire also measures subjective reactions by household members, including anxiety about insufficiency of the household food budget/supply to meet needs, perceived inadequacy of food quality or quantity, reported instances of reduced food intake and their consequences (e.g., hunger) for adults and children, and coping strategies used to supplement the food budget/supply. The CFSM can be used for households with children; it can also be used for households without children under 18 years of age by removing eight items that relate to the experience of children. The total score is used to categorize the households into four levels of food insecurity severity: food-secure, food-insecure without hunger, food-insecure with moderate hunger, and food-insecure with severe hunger. The CFSM has been used in three cycles of the Canadian Community Health Survey (CCHS) and in other investigations of food insecurity in Canadian households (Tarasuk, 2001; Tarasuk & Beaton, 1999).

### **Procedure**

Following ethics approval from the University of Ottawa Research Ethics Board, posters and flyers advertising the study were posted at four recruitment sites. Potential participants who responded to the advertisements were screened for eligibility by telephone. All eligible participants were interviewed in person by a trained interviewer in a neutral location. Locations included a private room at a library or community centre that was accessible and not associated with the research team members' affiliated institutions. Informed consent was obtained prior to the initiation of the interview. All materials, including the consent form, interview schedule, and CFSM were available in English or French. Interviewers took handwritten notes of the participants' responses during the interviews. Notes were recorded verbatim as much as possible. Each participant was given a grocery certificate as an honorarium at the end of the interview even if they withdrew at any point in the interview process: the option to withdraw without penalty was clearly described in the consent form at the outset of the interview. In addition to the honorarium, money was available to cover participants' child care and transportation costs. Immediately after the interviews, interviewers reviewed their interview notes for accuracy and separately recorded any personal observations about the interviews. Interview notes were word-processed for analysis.

### **Data Analysis**

Analysis of the quantitative data in the semi-structured interview was completed by totalling household scores and generating frequencies for food security status and sociodemographic variables. Responses to open-ended questions were analyzed using a grounded theory approach to the data. We confined our initial analysis to a qualitative descriptive interpretation of the data (Sandelowski, 2000). Qualitative description is a low-inference approach to qualitative data analysis and allows for later theoretical development or grounded theory (Charmaz, 2006; Morse et al., 2009; Sandelowski, 2000). Data were examined, then divided into discrete units that appeared to capture single items of meaning for descriptive and subsequent analysis.<sup>1</sup> We first sorted data to answer the interview questions asked. For example, in response to the question "Does not having enough food affect the health and well-being of you and members of your household? If so, how?",

we searched for all data that described the impacts of food insecurity on the participant, children, and other household members. This approach is in keeping with qualitative description and provided us with an organized data set with which we became thoroughly familiar.

Subsequent reviews of the data by individual reviewers allowed us to extract some themes which were jointly reviewed, discussed, and reflected on by a team of four analysts. For example, a theory of a relationship between food insecurity and feelings of social difference was arrived at by uncovering the expression of a striking number of comparisons that people made of their food-insecure lives with other people's food-secure lives (e.g., "It's so upsetting because all my brothers are doing well" and "They don't live the way we live; we have to suffer"). Although knowledge of a possible direct relationship of food insecurity with health and health-related consequences influenced our understanding and interpretation of the data, our analysis was fully grounded in the data: that is, in the respondents' experiences as they reported them. In the following sections, results are reported and illustrated with the participants' words. As the intention of the study was to determine participants' experiences of food insecurity, we felt it was essential to use the participants' own voices.

## RESULTS

### Demographics, Food Security Status and Typical Dietary Patterns

The total sample consisted of  $N = 30$  respondents. Of the total sample, 10 interviews were conducted in French and 20 were in English. Eight respondents were male (27%) and 22 were female (73%). The ages of the respondents ranged from 27 to 56 years, with an average age of 42. Household size ranged from 1 to 10 people; 37% of the respondents lived alone, 10% lived with another adult, and 53% were in families with children (both two- and lone-parent families).

Twenty-nine of the 30 study respondents (97%) were classified as food-insecure using the CFSM. Sixteen respondents had children and 94% ( $n = 15$ ) of these households were rated as food-insecure; 56% ( $n = 9$ ) of these households were food-insecure with moderate hunger and 19% ( $n = 3$ ) were food-insecure with severe hunger, indicating that the children in the household had themselves experienced hunger. All of the 14 respondents without children were rated as food-insecure; 29% ( $n = 4$ ) of these households were food-insecure with moderate hunger and 36% ( $n = 5$ ) were food-insecure with severe hunger.

Study respondents described their diets as being limited in variety, monotonous, and comprising poor-quality food. Respondents were constrained in their ability to consume fresh food (e.g., fruits and vegetables) and what they considered to be healthy foods as a result of limited food choices and financial constraints. When respondents were asked whether they had sufficient quantities of food in their households, their answers ranged on a continuum from managing with limited food and "making do" through managing with difficulty and being able to "get by" to not having enough food on a regular basis. Respondents mentioned variation during the month in the levels of food sufficiency: improvements tended to coincide with receipt of income from employment, social assistance, or disability support programs. Some also mentioned seasonal variation in quantity of food, with more food being obtained in the productive summer months.

### Feeling the Effects of Food Insecurity

Respondents linked constrained food choices and limited food consumption with poor physical health. They identified greater susceptibility to illnesses such as colds and the flu, and described feeling *tired, sick, exhausted, run-down, weak, and hungry*. Health problems included stomach aches, cramps, poor digestion, and sleep problems. Several people reported frequent headaches, directly attributing these to a lack of food or to the stress of not having enough food. One participant said,

Cela m'affecte de la tête aux pieds. (tr.: [lack of food] affects me from my head to my toes.)

Respondents who had been diagnosed with a chronic illness connected an unhealthy diet with difficulties in managing their illness.

Words that were commonly used to describe their experience of a lack of food and/or choice and its effects included *worry, anxiety, frustration, and stress*:

I feel frustrated, angry and mad. It feels like you're not providing properly [for your family] but your hands are tied.

Most respondents used the words *depressed* or *sad*: some mentioned that they cried often and easily. Some did not feel able "to go on living this way"; yet they saw that there was no way out:

C'est un cauchemar, c'est ma vie. (tr.: my life is a nightmare.)

For the most part, respondents attributed these feelings to their income constraints and limited access to food. A few respondents did not feel that their lack of food was an exceptional experience, but rather a part of their everyday lives: they did not make a direct link between their self-described difficulties and the experience of food insecurity.

**Living with food insecurity as parents.** Parents did whatever they could to prevent children from experiencing hunger and to protect their children from the effects of food insecurity and poverty so it would appear that their family was no different from a typical family. Parents with young children felt that they could keep their children's hunger at bay by eating less or going without food themselves. Despite such efforts, a sense of guilt and failure as parents was considerable. Additionally, many of these households (19% of respondents) experienced food insecurity with severe hunger. This category of the CFSM suggests that children in these households had experienced food deprivation and hunger.

Many parents tried to hide their personal distress from their children, thinking that their children were "too young" to be exposed to knowledge about hunger or not mature enough to understand the family situation. Maintaining a brave front became increasingly difficult as children became older, attended school, and gained greater exposure to social situations. Events such as hotdog or pizza lunches, common in Ottawa elementary and middle schools, were often unavailable to respondents' children because they could not afford them. Parents related that having their children's friends over to play or for sleepovers, both typical childhood activities, required careful management of food:

I pick and choose when the kids can have friends over. I may only allow it when the cupboard is full.

I'll say no to sleepovers to my kids because I know their friends will be over for dinner and I'll have to stretch the food—I don't feel comfortable doing that.

Children at school also told parents that their

food is not as good as the other kids . . . It's hard for me to hear that they aren't getting the same as other kids.

Overall, the felt effects of food insecurity by adults were not confined to their own experiences but amplified through their roles as parents and direct experience of their children's lives.

### **Effects of Food Insecurity on Social Interactions and Participation**

Effects of food insecurity were perceived not only to affect personal physical and emotional states but also respondents' interactions with others and their participation in everyday activities and social settings.

**Interacting with families and friends.** Respondents sought help from family and friends in times of need, but there was variability in the level of comfort and frequency of seeking support. Respondents reported that they placed limits on their requests to friends. As one person stated,

You don't want to be borrowing from others because you feel like a bum.

One respondent reported that friends had helped the family get enough food following a difficult situation. In this situation, friends were a natural support as well as a coping strategy to obtain food. Although there were reports of solidarity and support within extended families, there were also reports of reluctance to seek support from family members:

My family might not support me. It gets hard having to keep going back for help.

Initiating social activities with friends in general, such as inviting friends home or going out for dinner, was necessarily limited. Respondents purposefully avoided "asking people round because there is no food to offer" or they would "limit how often people come over." This affected their ability to develop relationships with others and limited social interaction. One respondent asked,

If there is no money to invite someone to your house, how do you make a friend?

**Constraining social and cultural activities.** Low household income and a lack of food affected participation in celebrations that typically include food (e.g., pot luck, community barbecue). Celebrating social, cultural, and religious occasions in the company of others was generally seen as difficult. One respondent reported that there are "no birthday parties because [I] can't afford it" and that the giving of gifts is very limited because "food is more important." Children's birthdays gave rise to parental stress and guilt:

There is still guilt because I still hear about how [the children] didn't have a party last year.

Another reported relying on extended family for celebrations:

They make the cake and dinner, they contribute to the party.

Some respondents asked emergency food organizations for cake mixes to make birthday cake in order to make the occasion special. Birthdays for some are nonexistent affairs; one participant reported,

My birthday is in November so it's almost near Christmas. I can't afford to plan for it. I can't afford to buy cake, dinner, and other things.



Acquiring food also took precedence over participating in other social and recreational activities:

If I go out I'll end up spending the money that I need for food.

**Participating in employment and voluntary activity.** Employment and voluntary-sector activity are typically seen as areas in Canadian life where people make social connections. The majority of respondents in this study were not employed, which excluded them from the social interaction and participation that takes place as a matter of course in work situations:

Finding a job is difficult.

Pour trouver un emploi il faudrait que je prenne un café, mais je n'ai pas l'argent pour ça. (tr.: To get a job you would have to have a coffee, but I don't have the money for that.)

One respondent stated that food insecurity prevented participation in voluntary activity:

I can't volunteer because of hunger.

### **Feeling "Socially Different" and "Left Behind"**

For the respondents in our study, there were daily reminders that the lives of others seemed substantially different and preferable to their own. One individual said,

Socially I am angry that they have and I don't.

Another thought,

I feel socially different than my neighbours. I don't let them know when I go to the food bank.

Respondents reported feeling left behind, envious of others, and angry.

Respondents also thought that people may be watching them, and they felt observed as well as criticized by others:

Other people out there may judge me but they don't know me. It makes me feel uncomfortable.

Everyday activities appeared to come under the scrutiny of others because respondents thought that their own behaviours seemed different or exceptional and outwardly demonstrated their poverty. Some mentioned,

You feel like a bum because you can't shop like a normal person.

Counting your change to buy food—the people behind you get annoyed.

One participant noted differences in the way they paid for their groceries:

I see people with cartloads of food pay with their credit cards and here I have coupons.

**Being "alienated" and "isolated."** One respondent noted,

I think when you struggle you feel a little alienated from people who aren't having the same difficulties.

Making comparisons with others, feeling different from others, and perceiving themselves to be under the scrutiny of others contributed to participants' making adaptations to their personal demeanour and social behaviour. Participants took steps to conceal their lives from others:

I try to keep to myself because I want to keep my problem to me.

It's like a mask that you put up over the house—we're doing fine, no need to worry.

But concealing the family situation created conflicting feelings for respondents:

I try to put on a good show for others, but I'm burning inside to let someone know.

As a result of the coverup of the household situation and adaptations in personal and social behaviour, people felt they were hidden, expressed by one participant as

Oui, on est comme invisible. (tr.: Yes, it's as if you are invisible or you don't exist.)

## DISCUSSION

The purpose of the current study was to gain an understanding of the everyday experiences of food insecurity in Ottawa. The majority of respondents perceived several negative effects on their lives as a direct result of their food insecurity: Food insecurity adversely affected their health and influenced their social behaviour. Many people went without most of the things that mainstream society takes for granted, such as visiting with friends or family, going out to social events, enjoying leisure activities, having guests over, and having birthday parties. Food insecurity prevented them from participating fully in family, work, and community life. These findings are congruent with those reported in other qualitative investigations of food insecurity (Hamelin et al., 2002; Scruby & Rapaport Beck, 2007).

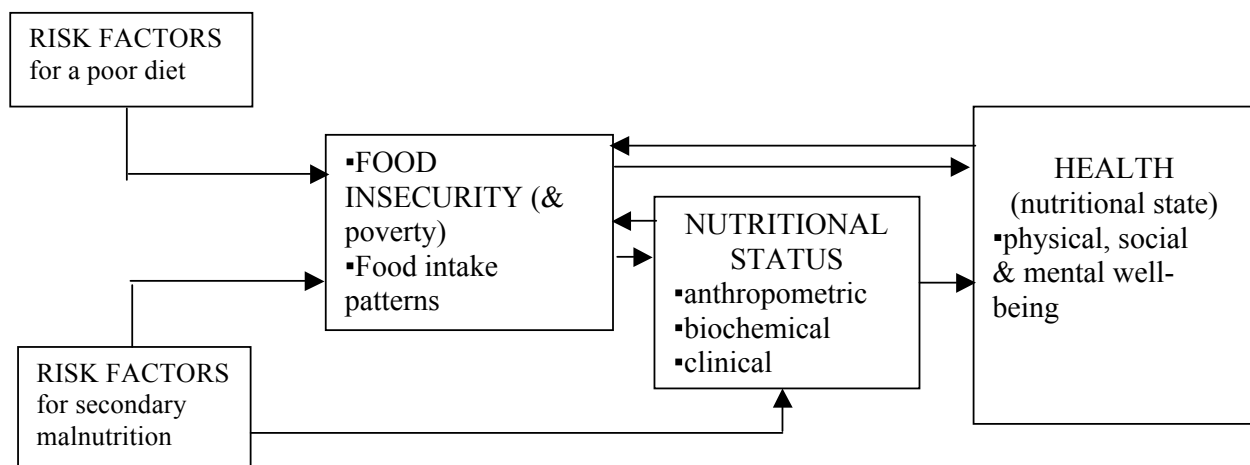
Campbell's model of direct and indirect consequences of food insecurity on physical, mental, and social health raises some issues for consideration. Our findings suggested that models that posit only an indirect link between food insecurity and effects on health via nutritional *status* are incomplete. Food insecurity can directly lead to a poor nutritional *state* that includes physical, mental, and social health consequences. For some respondents it is conceivable that the relationship between food insecurity and its health consequences may be more complex: Nutritional status and its health consequences may also lead to poverty and food insecurity, and nutritional state may lead to food insecurity. Similar bidirectional relationships have been demonstrated in health: ill health can lead to financial catastrophe and impoverishment (and concomitant food insecurity) which then lead to indirect (mediated) consequences (nutritional status) and direct consequences (nutritional state) (Evans, Whitehead, Diderichsen, Bhuiya, & Wirth, 2001; World Health Organization, 2008).

We suggest that Campbell's model is helpful for conceiving of direct consequences of food insecurity but can be improved on by conceiving components of the model as both causes and consequences (see Figure 2). In any event, food insecurity with the addition of poor health consequences may prevent individuals from addressing the barriers to overcoming poverty and food insecurity (London & Scott, 2005; Siefert, Heflin, Corcoran, & Williams, 2004). The effects of food insecurity are indeed weighty for those experiencing them every day, and provide justification for action. As Tarasuk (2001) confirms, "The broader social implications of [chronic] food insecurity related to social exclusion and alienation are relevant to population health irrespective of whether they are associated with measures of quantitative food deprivation" (p. 72).

The findings and the literature have enhanced our understanding of the relationship between food insecurity and health. The qualitative findings served to explicate theoretical relationships, throw light on the

meaning of the quantitative measure of food insecurity that we used, and raise further questions which we intend to pursue. For example, studies in Quebec have found intergenerational transmission of food insecurity, suggesting that food insecurity is not a short-lived experience (Rouffignat et al., 2001). The proposed model (Figure 2) does not explicitly conceive intergenerational transmission as a risk factor, but it needs further work. Longitudinal studies on the experience of food insecurity, with similarities in design to panel studies on homelessness, could help to document the lived and ongoing experience of food insecurity, map possible pathways in and out of food insecurity over time, and contribute to theory development, intervention, and policy design (see, for example, Aubry, Klodawsky, Nemiroff, Birnie, & Bonetta, 2007).

**Figure 2**  
**Direct and Indirect Relationships of Food Insecurity and Health**



*Note.* Adapted from Campbell (1991).

The findings also suggested that food insecurity and its indirect and direct consequences cannot be usefully studied or acted on without consideration of the contexts in which people live. Encouraging people in low-income, food-insecure households to eat healthier diets if they have little or no financial, geographical, or cultural access to low-cost nutritious food is fatuous. Campbell's (1991) model also supports a contextual approach to food insecurity by broadly identifying "context" as a risk factor for a poor diet. Neighbourhood-level research can help to uncover direct and mediated consequences of food insecurity and help decision-makers choose appropriate interventions to meet individual and community needs.

Finally, translating the stories of people who are food-insecure and incorporating local knowledge in evidence can provide insights and assist action. Further investigation and evaluation of planned change theories and associated interventions for translating evidence of food insecurity into policy and action at the municipal and provincial level can also assist in determining the effectiveness of these theories for addressing

inequities (Canadian Institutes of Health Research Institute of Population and Public Health & Canadian Population Health Initiative, 2006).

## CONCLUSION

Through collaboration in this study and an open community meeting to share results of the study, members of the community-academic research team, community organizations, and the public have gained evidence of the everyday and personal experiences of adults who are food-insecure in Ottawa. The study raises issues about conceptual frameworks and their relationship to the design of policy and interventions to address food insecurity. For example, alienation and social isolation, which were perceived as direct consequences of food insecurity, cannot be addressed by the provision of emergency food through food banks. As an intervention, emergency food, even for those who avail themselves of it, may temporarily relieve hunger, but it does not ensure relief of food insecurity and the direct consequences of social isolation (Tarasuk, 2005). Additionally, the words of the respondents were powerful and have had a profound and continuing effect on the study's collaborators and community members who accessed the technical report written for the study. The participants' stories have served to reinforce our interest in further research and in building and enhancing community capacity to take reflective and appropriate action against food insecurity in Ottawa. All the while we recognize that policy responses that change contexts and enable disadvantaged community members to have control over important aspects of their lives are "not just healthful in terms of the physical nutrients every body needs, but healthful in terms of the social nutrients every community needs" (Roberts, 2001, p. 4).

## NOTE

1. Charmaz (2006) suggests "line-by-line" coding as one approach to analytic coding. Our approach to coding is similar. Dividing data into discrete units (which encapsulate single meanings) allows us to make meaning either of phrases that stand by themselves or of full sentences as units for analysis. It also allows duplication of these same units for additional or alternative analyses and coding. A value of this approach is that the division of text into units is one way to start the process of thinking about meaning descriptively and beyond, thus providing a thorough and systematic means of familiarizing ourselves with the data and laying the ground for developing grounded theory.

## RÉSUMÉ

Afin de documenter l'expérience de l'insécurité alimentaire des adultes vivant en milieu urbain, une collaboration de chercheurs a mené une étude qualitative afin d'interroger un échantillon d'adultes de leurs expériences personnelles liées à l'insécurité alimentaire et d'identifier les effets perçus sur divers aspects de la santé. L'étude a été développée afin de mieux comprendre le point de vue expérientiel des adultes et de lier ces expériences à un modèle conceptuel existant (Campbell, 1991). Les répondants et répondantes ont signalé des difficultés liées à un accès insuffisant à la nourriture et l'expérience de détresse personnelle, de frustration et de désespoir, tous des sentiments liés à l'insécurité alimentaire. Le niveau d'insécurité alimentaire a aussi influé la participation des répondants et répondantes à des activités sociales typiques et a contribué à un sentiment d'isolement et d'aliénation.

**Mots clés :** sécurité alimentaire, insécurité alimentaire, faim, isolement social, théorie ancrée

## REFERENCES

- Adams, E.J., Grummer-Strawn L., & Chavez, G. (2003). Food insecurity is associated with increased risk of obesity in California women. *Journal of Nutrition*, 133, 1070-1074.
- Agriculture and Agri-Food Canada. (1998). *Canada's action plan for food security: A response to the World Food Summit*. Ottawa, ON: Author.
- Armstrong, J., Dorosty, A.R., Reilly, J.J., Child Health Information Team, & Emmett, P.M. (2003). Coexistence of social inequalities in undernutrition and obesity in preschool children: Population based cross sectional study. *Archives of Disease in Childhood*, 88, 671-675.
- Aubry, T., Klodawsky, F., Nemiroff, R., Birnie, S., & Bonetta, C. (2007). *Panel study on persons who are homeless in Ottawa: Phase 2 results: Final report*. Ottawa, ON: University of Ottawa, Faculty of Social Sciences, Centre for Research on Educational and Community Services.
- Campbell, C.C. (1991). Food insecurity: A nutritional outcome or a predictor variable? *Journal of Nutrition*, 121, 408-415.
- Canadian Institutes of Health Research Institute of Population and Public Health & Canadian Population Health Initiative. (2006). *Moving population and public health knowledge into action. A casebook of knowledge translation stories*. Ottawa, ON: Government of Canada.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, England: Sage.
- Che, J., & Chen, J. (2001). Food insecurity in Canadian households. *Health Reports*, 12, 11-22.
- City of Ottawa People Services Department & Ottawa Food Security Group. (2001). *Food security in Ottawa: A community profile*. Ottawa, ON: City of Ottawa.
- Cook, J.T. (2002). Clinical implications of household food security: Definitions, monitoring, and policy. *Nutrition in Clinical Care*, 5, 152-167.
- Dachner, N., & Tarasuk, V.S. (2002). Homeless "squeegee kids": Food insecurity and daily survival. *Social Science & Medicine*, 54, 1039-1049.
- Dietitians of Canada. (2005). *Individual and household food insecurity in Canada: Position of dietitians of Canada*. Toronto, ON: Author.
- Evans, T., Whitehead, M., Diderichsen, F., Bhuiya, A., & Wirth, M. (2001). *Challenging inequities in health: From ethics to action*. New York, NY: Oxford University Press.
- Food and Agriculture Organization. (2003). *Trade reforms and food security: Conceptualizing the linkages*. Chapter 2: Food security: Concepts and measurement (pp. 25-33). Rome, Italy: Author.
- Hamelin, A.-M., Beaudry, M., & Habicht, J.-P. (2002). Characterization of household food insecurity in Quebec: Food and feelings. *Social Science & Medicine*, 54, 119-132.
- Hamelin, A.-M., Habicht, J.-P., & Beaudry, M. (1999). Food insecurity: Consequences for the household and broader social implications. *Journal of Nutrition*, 129, 525.
- Hamilton, W.L., Cook, J.T., Thompson, W.W., Buron, L.F., Frongillo, E.A., Olson, C.M., & Wehler, C.A. (1997). *Household food security in the United States in 1995: Executive summary*. Alexandria, VA: United States Department of Agriculture.
- Health Canada. (2007). *Canadian Community Health Survey Cycle 2.2, Nutrition (2004): Income-related household food security in Canada*. Ottawa, ON: Author.
- Kalina, L. (1993). *Building food security in Canada. A community guide for action on hunger*. Kamloops, BC: South Central Health Unit, Kamloops FoodShare.
- Kendall, A., Olson, C.M., & Frongillo, E.A. (1996). Relationship of hunger and food insecurity to food availability and consumption. *Journal of the American Dietetic Association*, 96, 1019-1024.
- Kirkpatrick, S., & Tarasuk, V.S. (2003). The relationship between low income and household food expenditure patterns in Canada. *Public Health Nutrition*, 6, 589-597.
- Kirkpatrick, S., & Tarasuk, V.S. (2008). Food insecurity is associated with nutrient inadequacies among Canadian adults and adolescents. *Journal of Nutrition*, 138, 604-612.
- Ledrou, I., & Gervais, J. (2005). Food insecurity. *Health Reports*, 16, 47-51.
- Lightman, E., Herd, D., & Mitchell, A. (2008). Precarious lives: Work, health and hunger among current and former welfare recipients in Toronto. *Journal of Policy Practice*, 7, 242-259.

- Lightman, E., Mitchell, A., & Herd, A. (2009). *Suspicion and surveillance: Navigating welfare's bureaucratic maze* (Rep. No. Working Report #2). Toronto, ON: University of Toronto, Faculty of Social Work.
- London, A.S., & Scott, E.K. (2005). *Food security stability and change among low-income urban women*. Chicago, IL: Harris School of Public Policy.
- Martin, K., & Ferris, A.M. (2007). Food insecurity and gender are risk factors for obesity. *Journal of Nutrition Education and Behavior*, 39, 31-36.
- McIntyre, L. (2003). Food security: More than a determinant of health. *Policy Options*, 24(3), 46-51.
- McIntyre, L., Connor, S.K., & Warren, J. (2000). Child hunger in Canada: Results of the 1994 National Longitudinal Survey of Children and Youth. *Canadian Medical Association Journal*, 163, 961-965.
- McIntyre, L., Glanville, N.T., Officer, S., Anderson, B., Raine, K.D., & Dayle, J.B. (2002). Food insecurity of low-income lone mothers and their children in Atlantic Canada. *Canadian Journal of Public Health*, 93, 411-415.
- McIntyre, L., Williams, P., & Glanville, N.T. (2007). Milk as metaphor: Low-income lone mothers' characterization of their challenges acquiring milk for their families. *Ecology of Food and Nutrition*, 46, 263-279.
- McLaughlin, C., Tarasuk, V.S., & Kreiger, N. (2003). An examination of at-home food preparation activity among low-income, food-insecure women. *Journal of American Dietetics Association*, 103, 1506-1512.
- Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Morse, J.M., Noerager Stern, P., Corbin, J., Bowers, B., Charmaz, K., & Clarke, A.E. (2009). *Developing grounded theory: The second generation*. Walnut Creek, CA: Left Coast Press.
- Parker, L. (2004). *Proceedings of the roundtable on understanding the paradox of hunger and obesity*. Washington, DC: Food Research and Action Center.
- Popkin, B.M. (2002). An overview on the nutrition transition and its health implications: The Bellagio meeting. *Public Health Nutrition*, 5, 93-103.
- Power, E.M. (2004). *The determinants of healthy eating among low-income Canadians: Scoping paper*. Ottawa, ON: Health Canada.
- Rainville, B., & Brink, S. (2001). *Food insecurity in Canada, 1998-1999*. Hull, QC: Human Resources Development Canada, Applied Research Branch of Strategic Policy.
- Roberts, W. (2001). *The way to a city's heart is through its stomach: Putting food security on the urban planning menu*. Toronto, ON: Toronto Food Policy Council.
- Rose, D. (1999) Economic determinants and dietary consequences of food insecurity in the United States. *Journal of Nutrition*, 129, 517S-520S.
- Rouffignat, J., Dubois, L., Panet-Raymond, J., Lamontagne, P., Cameron, S., & Girard, M. (2001). *De la sécurité alimentaire au développement social: les effets des pratiques alternatives dans les régions du Québec, 1999-2000: rapport de recherche*. Quebec City, QC: Conseil Québécois de la Recherche Sociale and Ministère de la Santé et des Services Sociaux du Québec.
- Sandelowski, M. (2000). Focus on research methods: Whatever happened to qualitative description? *Research in Nursing and Health*, 23, 334-340.
- Scrubby, L., & Rapaport Beck, R. (2007). *Including low-income women with children: Program and policy directions* (Rep. No. 149). Winnipeg, MB: Prairie Women's Health Centre of Excellence.
- Siefert, K., Heflin, C.M., Corcoran, M.E., & Williams, D.R. (2004). Food insufficiency and physical and mental health in a longitudinal survey of welfare recipients. *Journal of Health and Social Behavior*, 45, 171-186.
- Starkey, L.J., Gray-Donald, K., & Kuhnlein, H.V. (1999). Nutrient intake of food bank users is related to frequency of food bank use, household size, smoking, education and country of birth. *Journal of Nutrition*, 129, 883-889.
- Tarasuk, V.S. (2001). *Discussion paper on household and individual food insecurity*. Ottawa, ON: Health Canada Office of Nutrition Policy and Promotion.
- Tarasuk, V.S. (2005). Household food insecurity in Canada. *Topics in Clinical Nutrition*, 20(4), 299-312.
- Tarasuk, V.S., & Beaton, G.H. (1999). Women's dietary intakes in the context of household food insecurity. *Journal of Nutrition*, 129, 672-679.
- Teelucksingh, C., & Galabuzzi, G. (2005). *Working precariously: The impact of race and immigrants status on employment opportunities and outcomes in Canada*. Toronto, ON: Canadian Race Relations Foundation.
- Toronto Public Health. (2006). *Food security: Implications for the early years: Background paper*. Toronto, ON: Author.

- Vozoris, N.T., Davis, B., & Tarasuk, V.S. (2002). The affordability of a nutritious diet for households on welfare in Toronto. *Canadian Journal of Public Health*, 93, 36-40.
- Vozoris, N.T., & Tarasuk, V.S. (2003). Household food insufficiency is associated with poorer health. *Journal of Nutrition*, 133, 120-126.
- World Health Organization. (2000). *Obesity: Preventing and managing the global epidemic: Report of a WHO Consultation*. (Rep. No. 894). Geneva, Switzerland: Author.
- World Health Organization. (2008). Reducing impoverishment and catastrophic health care spending. In *World Health Statistics 2008* (p. 32). Geneva, Switzerland: Author.

## APPENDIX

### **Selected Questions from the Ottawa Food Study Questionnaire**

Do you have any concerns about food for you and your household?

Do you have enough food to eat in your household?

Does the amount of food available to you and your family differ at different times of the month or year?

Are you satisfied with the choices you have for food?

How do you decide what you and members of your household will eat on a typical day, like today?

What gets in the way of you and members of your household eating the way you want to?

How do you feel when you and members of your household do not get enough to eat?

Does not having enough food affect the health and well-being of you and members of your household? If so, how?