Cree Women Speak:

Intergenerational Perspectives on Weight Gain during Pregnancy and Weight Loss after Pregnancy

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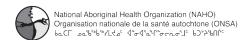
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ABSTRACT

Obesity is prevalent among the First Nations population in Canada, with serious associated health risks. Recent studies also indicate that a high percentage of First Nations women are overweight or obese at the start of their pregnancies, with a tendency to retain weight after their children are born. In response to these concerns, a community-based study was conducted in two Cree communities, using qualitative methods to investigate young mothers' perceptions and concerns about weight gain during pregnancy and challenges to postpartum weight loss. Female Elders were also interviewed to provide some historical context and to give some insight into culturally appropriate responses to the current weight-related health challenges being faced by young mothers. Overall, the study showed that most of the participants—young and old— associated "healthy foods" with traditional foods and "healthy living" with bush life. However, while Elders recounted staying active and eating traditional foods throughout their pregnancies, the younger women tended not to put their knowledge of what constitutes a healthy lifestyle into practice, mainly due to various individual and societal barriers. Some of the barriers identified related to lifestyle changes, including increased consumption of "white man's foods" and decreased physical activity, as well as to larger social changes, such as the medicalization of pregnancy and diminished community support networks for young mothers. Participants provided insight into how traditional practices could be intertwined with the benefits of contemporary life to help address some of the health issues currently affecting young Cree mothers.

KEYWORDS

First Nations women's health, overweight, obesity, pregnancy, social determinants of health, James Bay Cree, traditional lifeways, content-based analysis



INTRODUCTION

he prevalence of obesity is increasing among Canadians, and recent estimates suggest that about one-quarter of the adult Canadian population is obese, while another third is overweight (Tjepkema, 2005). According to the 2002-2003 First Nations Regional Longitudinal Health Survey, approximately 73 per cent of First Nations people are overweight or obese—this is 20 per cent higher than the Canadian average (First Nations Centre, 2005). Concern over these growing rates of obesity especially among the First Nations population—is centered on the associated health risks, such as type 2 diabetes, cardiovascular disease, high blood pressure, osteoarthritis, some cancers, and gallbladder disease (Gilmore, 1999; Health Canada, 2003; National Task Force on the Prevention and Treatment of Obesity, 2000). Gestational diabetes mellitus (GDM) is an additional gender-specific health risk related to excessive weight gain during pregnancy (Galtier-Dereure, Boegner & Bringer, 2001). These health risks can be magnified if women retain weight from each of their pregnancies. While little research specific to First Nations women has been conducted, there is some evidence that excessive weight gain during pregnancy and weight retention following childbirth, as well as the associated health risks, are more prevalent among Aboriginal women (Benjamin, Winters, Mayfield & Gohdes, 1993; Brennand, Dannenbaum & Willows, 2005; Caulfield, Harris, Whalen & Sugamori, 1998; Dyck, Klomp, Tan, Turnell & Boctor, 2002; Godwin, Muirhead, Huynh, Helt & Grimmer, 1999; Rodrigues, Robinson & Gray-Donald, 1999).

Recent research among eastern James Bay (*Eeyou Istchee*) communities indicates that approximately 75 per cent of the local women are already overweight or obese when they get pregnant and almost half of all women gain excessive weight during their pregnancies (Brennand, Dannenbaum & Willows, 2005). In addition, about 15-19 per cent of pregnant Cree women in these communities develop GDM (Brennand, Dannenbaum & Willows, 2005; Rodrigues, Robinson & Gray-Donald, 1999) and about one-third of newborns have a high birth weight (i.e., over 4000 grams) (Armstrong, Robinson & Gray-Donald, 1998; Brennand, Dannenbaum & Willows, 2005). Concern about these patterns of excess weight gain during pregnancy and postpartum weight retention among Cree women prompted the Cree Board of Health and Social Services of James Bay, Quebec, to initiate a research program to investigate the extent of the problem, and to gain a better understanding of women's perceptions of body size issues. This paper presents

some of the main findings of that research.

In order to address this health issue and develop effective interventions, both the specific sociocultural contexts in which individuals live, and the historical forces that have shaped contemporary communities, must be acknowledged. This means identifying the various political, economic, social, and cultural factors that both positively and negatively shape individuals' and communities' abilities to pursue and maintain good health. Intervention strategies that deal only with weight-related health issues may meet with little success (Special Working Group of the Cree Regional Child and Family Services Committee, 2000). For these reasons, a holistic approach was used in the study, to understand what barriers Cree women face in making healthy lifestyle choices, and to identify community strengths on which constructive interventions can be modeled. The specific goals of this study were threefold: 1) to explore the perceptions and concerns of young Cree mothers and female Elders about excess weight gain during pregnancy and weight loss following childbirth; 2) to investigate the women's perceptions of the reasons for these weight-related health challenges; and, 3) to learn about culturally appropriate ways of addressing this health issue by embracing Cree women's viewpoints.

METHODOLOGY

Formulation of research objectives

A working group made up of employees from the Cree Board of Health and Social Services of James Bay, Quebec, and a university professor conceptualized a qualitative study to develop strategies for improved understanding of Cree women's perceptions of weight gain in pregnancy and postpartum weight loss, and barriers to healthy living, with the goal of improving prenatal and postnatal care in Cree communities. Three of the authors of this paper were members of the working group. The study was conducted with Cree women living in two eastern James Bay communities over a two-month period in 2004. Both of these communities are small—each with fewer than 3,500 inhabitants—but one is more remote than the other. A more detailed description of these communities is available elsewhere (Vallianatos et al., 2006).

Data collection process

In this qualitative descriptive study—an approach which



provides a comprehensive summary of phenomena or ideas in local, everyday language (Sandelowski, 2000)—semistructured interviews were used to explore Cree women's experiences and perceptions of body weight changes during their reproductive years. The interview questions were developed with a local clinician and two Community Health Representatives (CHRs), who are Cree community members trained to provide and promote health care education. The questions provided a framework for the interviews, but other questions were also developed during the conversations with each participant. In general, the questions focused on exploring the concepts of healthy weight, healthy diets, appropriate weight gain during pregnancy, and on barriers to overall health and well-being.

The CHRs recruited 30 young mothers who were 30 years of age or younger and who had given birth within the previous year as participants for the study. These women were chosen using a method called "convenience sampling," which is based on an individual's accessibility and availability to participate in the research. The CHRs also recruited 10 Elders for the study. All of the participants gave their informed consent and had the option of ceasing their interview at any point, or requesting that the information they provided not be used. Interviews were conducted in the women's homes or in community clinics and took between 30 and 60 minutes to complete. Interviews were conducted in Cree or in English, according to the preference of the participant. The Human Research Ethics Board of the Faculty of Agriculture, Forestry and Home Economics at the University of Alberta approved the research methodology before it was implemented.

Data analysis procedure

Interviews were audiotaped, translated into English when required, and transcribed. The approach used to analyze the interviews was content-based (DeVault, 1990), meaning that the data were examined for thematic patterns that emerged from the women's voices. First, interview data were reviewed line-by-line to analyze the main concepts, and these concepts were given codes. Second, the codes were compared to one another to see how they might be related. They were then organized into thematic categories, which were broader than the initial codes. Finally, overarching themes were developed through a comparative analysis of the categories and by comparing them to research published in academic sources. Data analysis was conducted by a researcher and reviewed by a clinical practitioner with 10 years' experience providing health care to Cree women. The clinical practitioner checked the findings against his own

observations. Members of the Research Committee of the Cree Health Board were also given an opportunity to review the findings and final manuscript.

RESULTS

Defining "healthy living"

The Cree concept of health is best conceived as *miyupimaatisiiun*, which means "being alive well." Warmth, Cree food and physical strength form the essence of "being alive well" (Adelson, 2000). Game meat from large and powerful animals such as bear and caribou is considered to increase one's strength, and, conversely, eating "white man's foods" is perceived to negatively affect the health and strength of a Cree person (Adelson, 2000). For this reason, living in the bush is seen as conducive to healthy living because it requires being physically active to accomplish daily tasks and because it provides access to traditional, country foods derived from wild plants and animals, which have been minimally processed.

All of the women who participated in the study, both the young mothers and the Elders, associated healthy living—including physical, mental, and spiritual wellbeing—with bush life. This connection was made most fervently by the Elders, who recalled the arduous physical labour required at times to feed, shelter and care for their families while living a more traditional way of life. During their younger years, pregnancy and breastfeeding were not reasons to abstain from hard work. In fact, physical labour was described by Elders as a way to strengthen their bodies, and, most importantly, it was said to provide them with the endurance and strength required during childbirth.

While most of the young women interviewed also associated bush life with physical well-being and active lifestyles, they admitted spending relatively little time in the bush. The young women said they lived in town, where most jobs require little physical exertion. Consequently, they had to make a concerted effort to make time to exercise. Many of the Elders also pointed out how little physical exertion it takes nowadays to run a household, noting how some formerly labour-intensive domestic tasks, such as laundering clothes, have become as simple as pushing a couple of buttons today. As one Elder recalled, "Even before the time we gave birth [i.e., during pregnancy] we still chopped wood and got water. Today is not like that; you just throw the laundry in and wait." (personal communication, 2004)

Women of all ages also viewed country foods as central to a healthier lifestyle. The consumption of country foods is said to ensure "strong blood," an important factor for the



Cree in maintaining health. Bush animals, for instance, are seen to be strong, healthy and of "good blood." Therefore, if a pregnant woman eats traditional meats (e.g., moose, bear), she will have "strong blood" and her baby will be healthy and strong. Many young women spoke of the health benefits of including country foods in their diet, and one young mother described her experience of eating these foods during her pregnancy:

And it [eating country foods] kind of helped me. I didn't really have to eat a lot, you know. It like stuck there with me and the baby, you know, for a while it lasted. And when I was eating like, just that regular food there, that they sell in supermarkets, I noticed that I felt hungry more. (personal communication, 2004)

Research among other First Nations communities in northern Canada also emphasizes the links between traditional lifeways, country foods and good health (Borré, 1991; Freeman, 1988; Preston, 2002; Wein, Freeman & Makus, 1996).

Even though many of the young women recognized the health benefits of eating traditional foods, most claimed to not eat these foods regularly either because they had difficulty accessing them or because of a lack of knowledge of how to prepare them. Some of the young mothers interviewed commented on how it is more convenient and easier to purchase ready-made or fast foods at local stores. This shift in diet can help to explain some of the health problems affecting younger Cree women. One Elder discussed the connection between the lack of consumption of country foods, increased reliance on heavily processed foods ("white man's foods"), and rising obesity rates among young women in her community:

I think that the young women today eat too much white man's food so that's why they're gaining too much weight. They eat quite a lot of sweet food. That too helps them to gain more. But, to me, I feel that traditional food, it doesn't make you gain too much weight. Even if the meat has a bit of fat in it, it's not enough to make you gain a lot of weight because you're only eating a certain amount . . . During summer months we lived mostly on fish. I hardly ever went to the store for something to eat; it was mostly what I could get. When my husband was out working in the summer months, I would do the hunting for my family. I didn't, even though there was a bit of white man's food at the store, I didn't buy any because I had to do

with whatever was available in my own home. (personal communication, 2004)

Elders were also critical of the amount of food that many young women consume, stressing the importance of eating in moderation for general well-being, especially during pregnancy. They talked of how overeating can lead to a "hungrier baby," who in turn can become "big and lazy" and therefore be more difficult to deliver. As one Elder commented:

Because when they have that urge to eat when they're pregnant, they don't know when to stop, so they keep on eating and gain weight fast like that. I noticed that women today tend to gain a lot of weight at a faster pace. When you eat a lot the baby tends to get bigger faster, it grows faster. Because the mother eats a lot so the baby tends to grow faster and the woman starts to gain. Once the baby is large inside, the baby tends to want to eat more, so the mother tends to eat more because the baby makes her want to. (personal communication, 2004)

To sum up, the women interviewed—regardless of their age—generally equated "healthy living" with a more traditional bush life. However, it is important to note that bush living has changed. Contemporary bush camps have many of the comforts of home, including convenience foods, made possible by gas generators used to run appliances and by frequent return trips by vehicle or boat to nearby communities for provisions. Thus, nowadays "bush life" may not offer young women many more opportunities to exercise and eat country foods than town life.

Challenges to healthy living for young Cree mothers

There are a number of challenges to healthy living that young mothers must deal with in contemporary Cree communities, especially in relation to managing weight gain during pregnancy and weight loss after childbirth. In this section, a variety of factors that shape women's healthy living options are explored. These factors include individually manageable choices—such as diet and physical activity—as well as less controllable issues, such as the availability of community and childcare facilities, conflicting information about dietary requirements while pregnant and breastfeeding, and increased reliance on biomedical models of health and well-being.

There are certain health factors that are arguably

controllable, at least to some degree, by individuals. These include making healthy food choices and being physically active. However, in many cultural settings, pregnant women commonly overeat (Fairburn & Welch, 1990) and have lower levels of dietary restraint as compared to nonpregnant women (Clark & Ogden, 1999). Pregnancy for Cree women, as with women in many cultures, is commonly viewed as a time to "eat for two" and many women use this as an excuse to eat whatever they wish, in terms of both quality and quantity of foods. For example, in their interviews some young women spoke of their "bad" eating habits during their pregnancies, including eating fried foods and drinking soda. Another "bad" habit was snacking often, or as one young woman commented, eating out of boredom: "When you're bored and you're at home by yourself you want to eat all the time, but I tried to keep away from that" (personal communication, 2004). Many of the young mothers also admitted that it was difficult for them to discontinue eating "bad" foods once the habit had been formed. In addition, most found it challenging to add physical activity into their daily routines during and after their pregnancies, usually because they did not have the time or energy. So, even though these young women knew what constitutes a healthier lifestyle, they needed help in learning how to incorporate more healthy foods and exercise into their daily lives.

It is also important to understand the sociocultural context in which individuals live, as one's ability to make and follow through with healthy lifestyle choices is to an extent dependent on community and societal structures (Farmer, 1999; McLeroy, Bibeau, Steckler & Glanz, 1988). For example, in relation to making healthy food choices, the produce that was available in local stores to the young Cree women involved in this study was often of poor quality. Furthermore, the availability of healthier country foods to these women was dependent on the skills and knowledge of other household members. Consequently, such foods were not necessarily available to all community members.

Different sociocultural contexts also shape women's opportunities to be physically active. Most employment activities engaged in by young Cree women, for example, involve sitting for a large portion of the day, and although they are not involved with physical labour, many are still tired at the end of the day and don't have the energy to exercise. One young mother explained, "I had to work all through my pregnancy. I worked in an office, but . . . after work I was so tired and couldn't really exercise" (personal communication, 2004). Physical activity opportunities for young mothers are further constrained by the lack of, or

cost of, fitness and childcare facilities (Vallianatos et al., 2006). Mothers talked of how they found it challenging to include exercise in their daily routine, in between childcare responsibilities and other domestic chores. These women were often exhausted from running their households and felt that their domestic work provided them with enough physical activity:

Even when I was carrying my child and I had four others, I was still active in the house, you know what I mean, like, going down the stairs, putting laundry in, coming up the stairs, and cooking. I think that's physically active. I think it's 'cause you're still moving. It would be different if I was just lying around, you know, in the bed 12 hours a day, you know. But always to keep your body moving and rest up sometimes, [not] just lie there. (personal communication, 2004)

There is no question that moving is an important component of being physically active; however, the intensity and length of the household activities described by this young woman are likely insufficient to promote physical fitness and healthy weights. Recall that Elders also noted how little physical activity is required to complete domestic tasks today, as compared to their recollections and experiences of bush life.

Another sociocultural factor that affects the ability of young Cree mothers to pursue healthy lifestyles relates to confusion about traditional dietary beliefs around breastfeeding and the amount of food that should be consumed to ensure the health of mother and baby (Vallianatos et al., 2006). Traditionally, lactating women were encouraged to maintain their heavier weight immediately following childbirth. It was important for the mother to eat well, because the types and the amounts of food that she consumed would affect the quality and quantity of her milk supply. The belief was that if a woman lost too much weight after giving birth, she would not produce enough milk for her infant, and her infant would in turn become skinny, or potentially ill. One Elder summarized this viewpoint as follows:

[Women] have to gain weight when breastfeeding. Not healthy if losing [weight], because whatever the mother takes the baby receives as well. A mother should not go hungry when breastfeeding, in order to produce milk. They should consider their babies before themselves and not starve themselves because of their weight. (personal communication, 2004)



These cultural beliefs, about appropriate food consumption while breastfeeding, have been passed on from Elders to younger Cree women to try and ensure the health and well-being of both mother and infant. This is echoed in the words of one young mother:

So all the information [passed on from your mother and Elders], you were told in order for you to have more milk. For you to produce more milk, [you were told] that you have to eat 'cause you're eating for two people. And even after you're pregnant [and] the baby comes out, you're still going to be feeding two, so you have to eat more . . . And you always felt good when you gained weight too, because you know that you're going to have—you think you're going to have— more milk for your baby. (personal communication, 2004)

However, while weight retention after pregnancy was a non-issue for Elders, young Cree women today—in applying this cultural belief—tend not to lose the extra weight they gain during their pregnancies, and some even gain additional weight after they have given birth, as they continue to eat for two while breastfeeding. Again, this can be linked back to the fact that the older women lived a more traditional bush life, which meant they had a lower fat diet and participated in more vigorous physical activities, as compared to young women today. As one Elder commented, "It was easy for me to lose weight because I was in the bush in the winter time. I was in the bush for 18 years" (personal communication, 2004). This is an interesting example of how traditional knowledge, when applied outside of a traditional context, may in fact be detrimental to the health of younger generations who have a vastly different lifestyle from that of their Elders.

Elders also remarked on other lifestyle shifts, such as the medicalization of pregnancy. During their childbearing years, pregnancy was routine and birthing without the aid of biomedical technologies was normal. Pregnancy was traditionally described as *nimiyupimaatisiiu*, meaning "not a usual state of being," but very different from *nitaakusin*, meaning "sickness" (Adelson, 2000). In contrast, it was observed that today, pregnancy is frequently equated with being sick, so many young women cut back on physical activity, which can have negative health consequences. This is exemplified in the words of one Elder: "I think that the women gain a lot of weight because they don't do as much work and they really think they're sick and fragile" (personal communication, 2004). This phenomenon is not unique to Cree women's experiences. The impacts and implications of

the medicalization of pregnancy have been described and analyzed for a variety of cultural contexts (e.g., Davis-Floyd, 1992; Davis-Floyd & Sargent, 1997; Jordan, 1993; Kaufert & O'Neil, 1990; Moffitt, 2004).

Addressing the problems—Listening to women's voices

Low income has been associated with poor health behaviours among women during pregnancy (Walker, Cooney & Riggs, 1999). Financial constraints therefore need to be considered in the planning and implementation of exercise and nutrition programs for young Cree women, many of whom have minimal income. One young woman commented on this issue, stating:

Without any paying. Without anybody asking you that you have to pay just to lose weight, maybe programs like walking, walking around all the time, or helping with the traditional activities they have around the community, volunteering without asking them to get paid for doing, just to lose weight and drinking a lot of water. (personal communication, 2004)

The words of this young woman highlight some of the important issues that should be considered in addressing the constraints that young Cree mothers face in terms of exercising regularly. Others have made similar comments about the need for affordable and accessible exercise facilities (Vallianatos et al., 2006). Although some women are motivated to exercise on their own, many require community support. The organization of community activities such as walking or fitness clubs could be an effective way of getting young women and mothers to exercise more regularly.

Further, ensuring access to affordable, healthy foods should be a community concern. As one Elder remarked, "Sometimes we don't have all those fruits. Sometimes we don't have vegetables. So what's available, that's what we eat, whether it's traditional food or [something else]" (personal communication, 2004). Social support programs, in the form of cooking clubs or community kitchens, could therefore help young mothers learn to cook with different, healthier foods, as suggested by one young woman:

What I find in the community, especially, is people listen to the radio a lot, and I think we can inform them through the radio about what they can eat . . . There's different things that can be done, like cooking classes or get-togethers at somebody's house, [where we can] just learn, teach, learn from each other [about] how to cook

healthy meals. (personal communication, 2004)

This woman also suggested using other more conventional ways of communicating health information (e.g., through medical practitioners, pamphlets, etc.). All of these suggestions could be effective ways of reaching people and reinforcing health education messages.

Learning from the experiences of Elders and incorporating this information into community educational programs was also considered important among the women interviewed. Some Elders emphasized that health and nutrition education incorporating biomedical and Cree traditional knowledge should be part of the school curriculum so that young people are aware of health issues long before they become parents. This opinion was expressed in the following words of an Elder during a discussion on when and how to impart health and nutrition education to young mothers:

I think they should begin at the school level, you know, going to schools and stuff, you know. Because I know that when you begin to teach a child at an early age, they learn as they grow, and then when they're older and you start teaching them, they don't listen. They don't take what you give them. (personal communication, 2004)

In some Cree communities, CHRs, who are all Cree, already instruct school children about health and nutrition. The problem, however, is that not all communities have a CHR on staff at the local clinic. This prevents the dissemination of health information in Cree to school children in these communities and also limits local women to receiving health care information from non-Cree medical staff in a language other than Cree.

It is important to recognize that although individuals' behaviours are constrained in part by the sociocultural context in which they live, they have some power to respond to, and change, the factors that limit their ability to make healthy lifestyle choices. Some Elders emphasized that young mothers have to take control of their own health, as best they can, by making an effort to learn from both Elders and medical practitioners and by changing their eating and exercise activities:

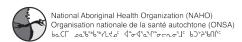
It would be good to teach them how to eat properly, and not to eat so much greasy and heavy food, so that they would be able to have stronger muscle and to be healthy. What I find today is that there are some young

women that are willing to listen to advice. If advice is given by an elderly person, young moms respect and listen to them. Because . . . I had an experience with a young pregnant mother. My friend and her daughter, they gave advice to this young pregnant mother and she took it. They gave her advice on how to eat traditional food like fish. So after she had the baby, they advised her to breastfeed her baby. [They] cooked boiled fish and they gave her the fish broth to drink. And this woman that I'm talking about is very slim even though she had four children because she listened to the advice that was given to her . . . This young woman, while she is pregnant, is always small. She hardly gains any weight, so when she has a baby it isn't hard for her. (personal communication, 2004)

The challenge is to empower people so that they can be their own agents for change, while at the same time recognizing and addressing the social structures that shape community and individual capacities to make healthy lifestyle choices.

DISCUSSION AND CONCLUSIONS

Culture influences health because it shapes the way people interact with the health care system, including their participation in programs of prevention and health promotion, their interpretation of health information, their health-related lifestyle choices and priorities, and their understanding of health and illness. The Cree cultural concept of miyupimaatisiiun is a holistic model of health that connects physiological wellness to social and political well-being. For the Cree, health is the ability to negotiate the obstacles that threaten the survival of the Cree—be they environmental, social, political, or physiological. As noted throughout this paper, a significant number of young Cree women no longer practise a traditional way of life, which puts them at risk for health problems during their pregnancies—especially if they are overweight or obese—that were not experienced by their grandmothers. We suggest that the concept of miyupimaatisiiun is a starting point for responding to the various factors related to the body weight issues that are so prevalent among young Cree mothers. Interventions that target individuals and emphasize behavioural changes may have limited success in encouraging women to have healthier diets and to adopt more active lifestyles unless they take into consideration the specific barriers that Cree women face based on the sociocultural environments in which they live.



Culturally meaningful programs that value traditional Cree concepts, yet take into consideration the realities of contemporary life, might be a useful strategy for interventions. We suggest emphasizing the cultural importance that Cree Elders place on eating well to encourage women to eat quality foods during their pregnancy. While breastfeeding, women should be encouraged to include traditional foods and to exercise regularly. The establishment of community cooking networks, where individuals come together on a regular basis to share cooking skills (including Cree food preparation) and learn from each other and from Elders, is one example of how this could be done. Such events would help to address the time, energy and knowledge constraints discussed by the young Cree mothers, while helping them to build social support networks.

Health is determined by the interactions between individual characteristics and behaviours, social and economic factors, and physical environments. The Cree women who participated in this study identified many of the determinants of health related to weight gain during pregnancy and postpartum weight retention. Strategies to improve their health must therefore address the entire range of factors. Addressing the obesity problem among Cree women of childbearing age requires a multi-pronged approach that is initiated from within the community, and that involves changes at the individual, community and societal levels. The development of culturally meaningful and effective health programs for young mothers can occur only through the inclusion of Cree voices, including those of Elders, healers and the young mothers themselves.

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END NOTES

- 1. Both GDM and high birth weight babies are more common among obese women.
- 2. It is important to note that the concept of "bad" food can vary by culture. Furthermore, certain eating patterns may be labeled "bad" in particular contexts and not in others, which is why we put the word "bad" in quotation marks.

