

An Examination of Cancer Risk Beliefs Among Adults from Toronto's Somali, Chinese, Russian and Spanish-speaking Communities

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ABSTRACT

Background: Canada's growing ethnocultural diversity challenges health professionals to develop culturally sensitive cancer prevention strategies. Little is known about the ethnocultural specificity of cancer risk beliefs. This qualitative pilot study examined cancer risk beliefs, focusing on diet, among adults from Toronto's Somali, Chinese, Russian, and Spanish-speaking communities.

Method: Group interviews (n=4) were conducted with convenience samples of adults (total n=45) from four ethnocultural communities (total 45 participants).

Results: The constant comparison method of data analysis identified three common themes: knowledge of cancer risk factors, concern about the food supply, and the roles of spiritual and emotional well-being. Two areas of contrasting belief concerning specific mediators of cancer risk were identified.

Interpretation: Findings support the investigation of cultural-specific health promotion strategies emphasizing both the maintenance of traditional cancer protective eating practices and the adoption of additional healthy eating practices among new Canadians. More research is needed to enhance our understanding of ethnoculturally specific cancer risk beliefs and practices to ensure the cultural relevance of programming.

The translation of the Abstract appears at the end of this article.

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Canada's ethnocultural diversity challenges health professionals to develop culturally sensitive cancer prevention strategies. Like many Canadian cities, Toronto is ethnoculturally diverse: 48% of residents were born outside Canada and 37% belong to ethnocultural minorities.¹ Ethnicity represents the aggregate of cultural practices, social influences, religious pursuits and racial characteristics shaping the distinctive identity of a community.² In this article, the word "ethnocultural" is used to capture these dimensions of ethnicity.

Although the relationship between ethnocultural identity and food choice has been established,^{3,4} little attention has been paid to the influence of culturally specific beliefs on the interpretation of cancer risk messages. Concepts such as health, illness, body consciousness, and behavioural self-efficacy are culturally constructed; therefore, they may influence perception of cancer risk messages.^{5,6} Among ethnocultural communities, barriers to utilization of cancer screening programs include language, cultural beliefs, and attitudes.^{5,7,8}

The determinants of perceived health risk are poorly understood.⁹ The disparity that may exist between "risk" as understood by scientists versus the general population may reflect the lack of attention that the role of the receiver has often been given in the creation of risk communication messages.^{10,11} It is important to consider the contexts within which risk communications are embedded.^{9,11} Community members' perceptions of, and responses to, health risk messages may be influenced by differing cultural, social, and environmental factors.¹¹ At the community level, factors such as community self-image, level of trust in the risk communication messenger, competing quality of life issues, and economic status may act as filters for risk communication messages.¹¹

This project was conducted by a research team comprised of representatives from community-based agencies (e.g., public health, community health centres, a Somali cultural family centre, a regional cancer centre) engaged in working with Toronto's ethnoculturally diverse communities. The purpose of this qualitative study was to examine diet-related cancer risk beliefs among members of four ethnocultural communities. Results of this study will inform the development of community-based health promotion programs.

METHODS

Qualitative methods are well suited for investigation of peoples' beliefs and meanings.¹² The constant comparison approach¹³ was used to explore the group perceptions of cancer risk related to diet.

Four group interviews were conducted with convenience samples of adults from Toronto's Somali, Russian, Chinese, and Spanish-speaking communities. Participants, born outside Canada and over 18 years old, were recruited (by posting, announcement and word of mouth) through non-nutrition-related programs for new Canadians. This strategy recruited "best informants" – participants willing to share their beliefs in a group setting.¹⁴

Four experienced group facilitators, fluent in English and Russian, Spanish, Chinese or Somali, were hired as interview moderators. They were trained in interview moderation, audiotape translation and transcription, and participated in a simulated interview and topic guide pre-test. Data were collected during 1.5-hour audiotaped interviews conducted in each group's mother tongue. Moderators also summarized recorded participants' key points on flip charts. The interview guide prompted participants to describe a) factors that they believe influence cancer risk, b) foods or eating patterns that they believe influence cancer risk, and c) whether scientists' advice to eat more fruits and vegetables fit within their culture and cuisine.

Prior to the interviews, participants were told the purpose of the study, provided informed consent, and completed demographic surveys (in their own language). An incentive payment (\$20.00), travel expense reimbursement, snacks, and childcare were provided. Ethics approval was obtained from the Research Ethics Board of Sunnybrook and Women's College Health Sciences Centre and Toronto Public Health.

Interview audiotapes were translated into English and transcribed by moderators, and flip chart notes were independently translated and transcribed. Verification of the translation of a segment of one audiotape was obtained from an individual not affiliated with this project. Interview transcripts and flip chart notes were compared to verify translation accuracy.

The systematic constant comparison method was used to analyze data.¹³ This involves classification of data into categories, identification of themes, comparison of data from each of the interviews and ongoing revision of categories and themes.¹² Interview data were coded to identify categories capturing participants' responses to the three main interview questions. Categories arising from each ethnocultural group were compared and contrasted to identify similarities and differences. Continuing comparison of data from the four groups allowed researchers to detect the overarching themes that emerged from both shared and unique experiences expressed by participants.¹³ Researchers discussed overarching themes until a consensus was reached.¹³

RESULTS

Characteristics of participants

Forty-five adults, aged 20 to 65 years, participated in this study (10 to 12 participants per group); 84% of participants were female and 70% were married. Most participants (89%) had children and reported post-secondary education (72%). Participants' length of residence in Canada was varied (see Table I).

Three common themes emerged from data analysis: 1) knowledge of cancer risk factors, 2) concerns about the food supply, and 3) the roles of spiritual and emotional well-being. The fit of advice about eating more fruits and vegetables with participants' cuisines and two areas of contrasting beliefs among the groups are also described.

Common themes

Knowledge of Cancer Risk Factors

Widely accepted mediators of cancer risk were reported by all four groups. Responses such as, "genetic predisposition", "smoking provokes cancer", "if we drink alcohol...this causes the organs to get cancer", "second hand smoke is the problem", "radiation – the sun", and "environment – everything goes into our nose", exemplified this theme. All groups mentioned the need to "reduce fatty food" and "eat less meat and more vegetables". Eating "food poor in fibre" was associated with increased cancer risk.

TABLE I

Participants' Length of Time Living in Canada (n=45)

# Years	% of Participants
≤1	8.5
>1 to ≤5	38
>5 to ≤10	27
>10 to ≤15	18
>15	8.5

Some myths or misconceptions about cancer risk emerged. For example, some Spanish-speaking and Chinese participants reported that eating high temperature foods increased cancer risk.

Concerns About the Food Supply

All four groups expressed concerns about cancer risk arising from chemicals, preservatives, and additives in foods. For example, "preserved and processed foods", "hormones... and sometimes antibiotics", "artificial food...canned food", "eating those chemicals... preservatives, additives and colouring" and eating canned food with "no expiry date" were believed to increase cancer risk.

Russian and Chinese participants were particularly concerned about the use of fertilizers and pesticides in food production. A Russian participant explained, "I agree with scientists' point to take vegetables and fruit, but on one condition, that those fruits and vegetables have been grown without chemicals." A Chinese participant noted that "washing thoroughly is very important" to reduce pesticide residues on vegetables.

Chinese participants were also concerned about cancer risk associated with spoiled or "contaminated foods". One participant explained that "unhealthy food, those foods that already turned bad ... continuously eating these kinds of food may harm our body." One participant believed that a "Canadian...supermarket had changed the label" in order to sell expired foods. Somali participants were concerned about eating "food that has been in fridges for long periods of time." In Somalia, they "were used to fresh" foods and the Canadian practice of eating "leftovers" was "why people get sick."

The following exchange demonstrates Chinese participants' concerns about eating genetically modified foods.

A: "Genetically changed crops... that could weaken your immune system, which is scary."

B: “They genetically changed the crops so it can adjust to the pests. Does it mean the genes from the pests are also in the crops? That really terrified me. If you continually eat these crops, I suspect that the person’s gene would also be affected.”

C: “That’s very, very scary, over 60% of Canadian crops are genetically changed. We don’t know the consequences. Government has not set up rules...to regulate this...there are already a lot of rare diseases happening now.”

The Roles of Spiritual and Emotional Well-being

Somali and Spanish-speaking participants described spirituality as a mediator of cancer risk. Somalis described Allah’s role in health determination, saying that cancer was “brought by Allah” and “the will of Allah.” They referred to Allah’s role in cancer prevention saying, “The fact is – only Allah can decrease it [cancer]” and to reduce cancer risk one could “ask for Allah’s blessing.” Another participant added a personal dimension to this faith, saying “Still, one has to try his or her best to take care of one’s self while one is living.” To a lesser extent, Spanish-speaking participants echoed the belief that prayer influenced cancer risk.

Russian and Chinese participants described the cancer-mediating roles of emotional and mental well-being. Among Russian participants, factors influencing well-being – such as “be(ing) able to calm yourself down”, “keep(ing) your emotions in self-control”, “positive feelings” and one’s “emotional-spiritual state” – were viewed as within an individual’s control. Well-being could be achieved by listening to music, having a “daily routine”, “training, hardening yourself”, “physical exercises” and “disciplin(ing) yourself on a daily basis.” Chinese participants discussed the cancer-protective effects of “stress management” and the importance of “know(ing) how to relax.”

The “fit” between healthy eating advice and cuisine

Participants discussed whether scientists’ recommendations to eat more fruits and vegetables fit within their cultures and cuisines. Somali, Chinese and Spanish-speaking participants felt that their traditional cuisines were closely aligned with

this advice. Many participants wished that their children followed more traditional diets. Somali participants found scientists’ advice “encouraging” since they “already do that – it is our culture.” They described ways of making this healthy eating advice known within their community that highlighted the importance of interpersonal communication, saying, “We are Somalis, news can travel.”

Spanish-speaking participants agreed: “Our ancestors consumed a lot of grains, a lot of vegetables and they never knew about cancer. That’s why we should eat grains, vegetables.” They felt the need to start with “ourselves at home, with our children, with our family” in re-establishing their traditional cuisine.

Chinese participants also found advice about eating more fruits and vegetables consistent with their cuisine. For them, ensuring that children eat enough fruits and vegetables by making juices and adding vegetables to rice and meat dishes so children “eat them (vegetables) without even knowing it” was most important.

Russian participants believed that their traditional diet may not reflect scientists’ advice. They described the prominence of meat in Russian cuisine and commended Canadians for putting salads “in first place in their cuisine.” However, their discussion of this topic focused on reiteration of their concerns about chemical use in growing fruits and vegetables.

Contrasting cancer risk beliefs

Comparison of interview data revealed two areas of contrasting beliefs. First, among Russian participants, environmental radiation exposure was considered the primary source of cancer risk. They mentioned other risk factors, but strongly agreed “Radiation is first.” Throughout their interview, this belief was repeated in comments ranging from an observation that radiation was why “people are dying back home in Kazakhstan” to a light-hearted mention of the “radiation in rubles.” The other groups did not echo Russian participants’ belief that radiation was “the main factor” affecting cancer risk.

The second area of contrast related to Chinese participants’ unique descriptions of foods with cancer-preventive properties, such as Chinese green tea, turtle, Lin Chee (dried mushroom), dandelion, shark

bones, monkey head mushrooms, lotus and snake tongue grass.

DISCUSSION

The themes that emerged from this study can inform programming and the development of larger scale research.¹⁵ Ethnocultural groups vary based on country of origin, literacy skills, migration history, ethnic identity, income, education, employment, length of residence in Canada and the acculturation process. These factors influence individuals and groups in complex ways. Differing cancer risk beliefs held by study participants may reflect the complex interaction between these factors. For example, Chinese participants were very concerned about genetically engineered foods. This finding may demonstrate the impact of environmental influences, such as media and technology, on shared risk perceptions. Chinese participants’ descriptions of medicinal use of foods reflects their shared history of alternative medical treatment.¹⁶ Russian participants’ concern about radiation risk suggests that the salience of health risks may transfer from an individual’s country of origin to their new home. Acculturation may involve re-orientation to geographically salient risk factors. These examples demonstrate the complex interplay between environment and beliefs and the dynamic nature of cancer risk beliefs.

All four of the ethnocultural groups interviewed readily identified many of the common risk factors for cancer, including tobacco, diet, sun and heredity. Therefore, they had accurate general knowledge about cancer risk. Future research should examine the extent to which this knowledge translates into behaviour.

The high level of food safety concern expressed by most of the groups echoes data from a national survey of Canadians.¹⁷ This perceived risk may be a barrier to the promotion of a cancer-protective diet rich in fruits and vegetables and has implications for risk communication.

The important role of emotional and spiritual well-being was expressed by the Somali and Spanish-speaking groups. Although participants shared beliefs concerning the roles of spiritual and emotional well-being as mediators of cancer risk, they articulated and constructed these beliefs

differently. The extent to which these differences reflect participants' ethnocultural backgrounds can be examined in future research. Religious and cultural beliefs play key roles in health practices and beliefs among people of various ethnocultural origins.^{7,18} Faith-based institutions may be suitable venues for health promotion programming.

Chinese, Somali and Spanish-speaking groups indicated that their traditional cuisines were consistent with scientists' advice about eating more fruits and vegetables. Supporting new Canadians in maintaining healthy aspects of their traditional cuisine through culturally appropriate communications may be an appropriate focus for health professionals.¹⁹

Limitations

Convenience sampling restricts the generalizability of results. In future research, serial group interviews using a purposive sampling strategy could enhance the transferability of findings. Translation presents a particular challenge in this type of study. Moderators should participate in data analysis of future studies to provide ongoing translation consultation. The use of multiple translation sources for verification of data should be expanded.

Although multiple verifications were used to increase the accuracy of translation, the potential for errors in understanding of translated data persists. The transferability of study findings, which may be limited by the use of convenience sampling and small sample size, may be determined through future research.

IMPLICATIONS FOR PRACTICE

The existence of the "healthy immigrant effect" has been observed in Canada.²⁰ Data from the 1994-95 National Population Health Survey indicate that recent immigrants tend to be in better health than Canadians, but the prevalence of chronic conditions and long-term disabilities approaches the Canadian-born population among immigrants who have

lived in Canada for more than 10 years. Public health practitioners should learn how to support new Canadians in maintaining their lower rates of chronic disease. Helping ethnocultural groups develop cultural-specific strategies supporting the maintenance of traditional cancer-protective eating practices and the adoption of additional healthy eating practices may be a first step.

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RÉSUMÉ

Contexte : La diversité ethnoculturelle croissante du Canada lance aux professionnels de la santé le défi d'élaborer des stratégies de prévention du cancer sensibles à la culture. On a peu de renseignements sur les croyances des risques de cancer chez certains groupes ethniques. Cette étude pilote qualitative a examiné ces croyances, surtout à l'égard du régime alimentaire, chez les adultes des communautés somalienne, chinoise, russe et hispanophone de Toronto.

Méthode : Nous avons mené des entrevues en groupe avec des échantillons de commodité composés d'adultes (N=45) de ces quatre communautés ethnoculturelles.

Résultats : Par comparaison continue, nous avons cerné trois thèmes communs (la connaissance des facteurs de risques, l'inquiétude au sujet des sources alimentaires et le rôle du bien-être spirituel et affectif), ainsi que deux domaines où les croyances à propos des médiateurs spécifiques des risques de cancer sont opposées.

Interprétation : Les conclusions de l'étude viennent étayer le besoin de trouver des stratégies de promotion de la santé propres à chaque culture et qui soulignent la continuation des pratiques d'alimentation traditionnelles qui protègent contre le cancer et l'adoption de nouvelles pratiques d'alimentation saine chez les néo-Canadiens. Des recherches supplémentaires sont nécessaires pour mieux comprendre les croyances et les pratiques des différents groupes ethnoculturels à l'égard des risques de cancer et pouvoir ainsi établir une programmation qui réponde aux besoins particuliers de ces groupes.