

# What are the Nutrition and cancer information needs of women with breast cancer and how to best meet these needs: a conclusion of a Vancouver Island pilot

Cheri Cosby, MSc; RD, Patricia Good, BSc.,RD; Laura Galbraith, BSc; Aruba Nurulla, BSc; Robin Arora, BSc; & Helena Daudt, PhD

## Objectives

- (1) To determine the Nutrition information needs of breast cancer patients in Victoria and Nanaimo.
- (2) determine whether Nutrition and breast cancer group sessions conducted via telehealth technology are as effective as face-to-face group Nutrition sessions as a means to supply Nutrition information.

## Background

Women with breast cancer on Vancouver Island are seeking out information which resulted in 140 referrals to the Vancouver Island Centre Oncology Nutrition in 2004. In 2007 the number of referrals increased to 211, which represents a 44% increase in demand for the services over the past 3 years. Of the 211 referrals, 56% come from Victoria and 44% from up-island. The Victoria women are offered a weekly 1-hour face-to-face Nutrition and breast cancer group session. Breast cancer and Nutrition Information group sessions are not available outside of Victoria on Vancouver Island. At the group sessions there is informal discussion around a variety of topics of relevance to breast cancer such as, managing side effects during treatment, managing weight, dietary fiber, fat, calcium/vitamin D, exercise, and natural health products.

Recently in a multi-centre, randomized, prospective clinical trial it was demonstrated that dietary modifications to fat intake resulted in a significant reduction in breast cancer relapse and increased survival (Chlebowski, 2006). Studies have shown that women who undergo treatment for breast cancer want information about their disease, although the amount, timing, and type of information desired varies with no apparent relationship to patients' demographics or treatment modality (Hartmuller, 2004). Use of telehealth in rural settings has been effective in group Nutrition education for diabetes education. However, use of telehealth in group education in Nutritional cancer care has not been evaluated.

## Materials & Methods

To determine the Nutritional information needs of women with breast cancer living on Vancouver Island, women with breast cancer were asked to complete a questionnaire at the conclusion of four Nutrition and breast cancer group sessions conducted by a Registered Dietitian. In Victoria the sessions were conducted face-to-face, whereas the sessions in Nanaimo were conducted via telehealth (Dietitian in Victoria). There were two sessions conducted for each location (4-5 subjects per session) which totaled four sessions (18 subjects) during the evaluation period (See Table 1).

To determine effectiveness of using telehealth technology in a group situation to meet the nutrition information needs of breast cancer patients an additional questionnaire was used with the women in Nanaimo. To determine whether nutrition and breast cancer group sessions conducted via telehealth technology are as effective as face-to-face nutrition sessions as a means to supply nutrition information, a comparison of statistical data was conducted. During each of the sessions, observers (BCCA staff members) were present and completed a questionnaire capturing general observations of the process.

Table 1. Characteristics of Subjects.

Study group characteristics	Victoria (n=9)	Nanaimo (n=9)
<b>Age:</b> 20-40 yrs	0	0
41-60 yrs	6	6
61-80 yrs	3	3
<b>Stage of disease:</b> I/II	6	0
III/IV	3	9
<b>Treatment:</b> surgery	9	8
radiation	9	8
chemotherapy	5	9
hormone therapy	8	4
herceptin	0	5
<b>Estrogen receptor status:</b> ER +	7	4
ER -	1	5
<b>Weight:</b> 45-65 kg	2	1
66-85 kg	3	3
86-100 kg	2	4
101-130 kg	2	1

This research received BCCA and VIHA Ethics approval



Figure 1. Patients attending a face-to-face Nutrition and breast cancer group session at the Vancouver Island Centre, BCCA.

## Results

Women with breast cancer living on Vancouver island required information on managing side effects of treatment, weight, and diet and natural health products. One hundred percent of the women in both Victoria and Nanaimo planned to make changes to their lifestyle due to the information learned in the session and 100% found it satisfactory and would recommend the session to other breast cancer patients. The most commonly seen types of changes women were interested in making included: increasing their intake of fruits, vegetables, and whole grains, reducing their intake of fat, increasing the frequency and intensity of their exercise, and increasing their levels of vitamin D and calcium intakes (See figure 2). An improved awareness of foods which contain plant estrogens and the safe levels of antioxidants during treatment, and safe levels of alcohol were noted as other areas of change in some patients.

Figure 2. Types of Diet Changes planned from attending group session

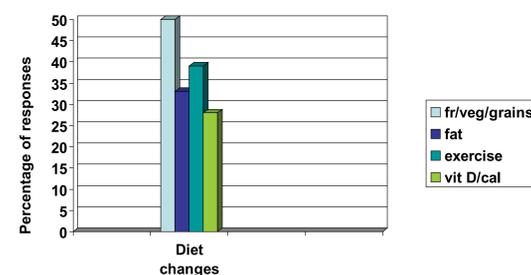


Figure 2. Most commonly (percentage value) stated types of diet changes the women planned to make from attending the group session based on number of responses in 18 women.

Combining the scores from Victoria and Nanaimo, 60% of women felt all of their questions were answered, 29% felt most of their questions were answered, and 11% felt some of their questions were answered. Most women commented it was important this information was provided in a supportive, caring, respectful, and encouraging environment.

The effectiveness of using telehealth technology in a group situation to meet the Nutrition information needs of breast cancer patients was evaluated with women in Nanaimo (See Table 2).

Table 2. Results of Subject Satisfaction with Video link Technology

Questions	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Talk easily with RD				10%	90%
Obtained info needed				22%	78%
'Connected' with RD					100%
Satisfied with visit				10%	90%
Understood RD					100%
RD understood me			10%		90%
Nothing was missing				33%	67%
Privacy and confidentiality maintained					90%
Would do again		11%		11%	78%
Quality of visual was good					100%
Quality of audio was good					100%

Differences in how women in Victoria and the women in Nanaimo evaluated their experiences was the method to compare the effectiveness of Nutrition and breast cancer sessions conducted via telehealth technology versus face-to-face nutrition sessions. In Victoria, 63% of women felt all of their questions were answered and in Nanaimo 57% felt all of their questions were answered (See figure 3).

Figure 3. Comparison of face-to-face with video linked Nutrition and Breast cancer group sessions

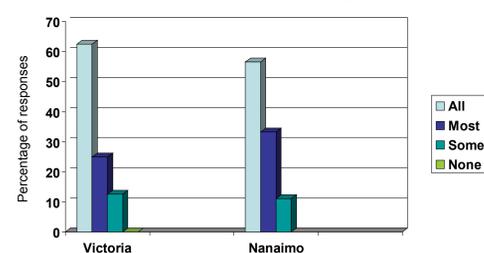


Figure 3. The number of women's questions that were answered (expressed as percentage values) in the Nutrition and breast cancer group sessions in Victoria and in Nanaimo. Percentage values were based on number of responses to patient questions; total sample size = 18.

Equal numbers (100%) of women planned to make diet changes as a result of the session. The types of changes were consistent in both groups. Equal numbers of women (100%) would recommend the session to other women with breast cancer.

There were observers (BCCA staff members) present during each of the Nutrition and breast cancer sessions. During the telehealth sessions, there were observers present in Nanaimo and in Victoria to gain balanced insights into the process, etc for both sites. In the face-to-face sessions, women were very eager to participate and ask questions. Women were prepared with precise questions, and they more easily connected with the dietitian than in the telehealth sessions. There was some confusion observed surrounding the subject of toxicity levels of some vitamins at one session, and this was quickly and effectively handled by the Dietitian and the confusion was fully resolved.

In the sessions which were conducted via telehealth, women overcame an initial feeling of angst and hesitancy within approximately 15 minutes and participation level and ability to 'connect' with the Dietitian increased. Some sharing was noted among the women in the session, but this was observed to be less than the face-to-face sessions. There may be some benefit in providing women with more detailed handouts and writ-

ten material as it was more time-consuming to have women make notes. When the Dietitian was 'zoomed in' on the screen, there was an increased sense of the Dietitian being present. However, due to limited visual quality, it was challenging for the Dietitian to use body language signals to interpret level of understanding and need for women to ask more questions. Clarification on the best methods, such as hand waving, or expanded use of the facilitator role to ensure all women could ask their questions needs to occur at the beginning of these sessions. Ensuring the presence of a skilled facilitator is essential to a successful session. There were differences in the level of participation and acceptance of the material in the evaluations noted between the two sessions during the pilot study. However, due to the very small sample size, the effect of the level of skill between facilitators would require further examination. The small size of the groups were felt to be ideal as the time required to answer the participants questions would have been greater and the time allotted would have been insufficient. Overall, there was a high level of interest among the women who participated in the pilot study to increase the availability of group sessions via telehealth in Nanaimo.

## Conclusion

Provision of nutrition and breast cancer education program in group format is well established at Vancouver Island Centre which meets the Nutrition information needs of women with breast cancer. Although some differences were seen in the number of women feeling all of their questions were answered, the majority of women in Nanaimo felt the use of telehealth technology was effective as a medium to meet their Nutrition and cancer information needs. Telehealth on Vancouver Island has the potential to meet increased demand for breast cancer Nutrition services. This pilot provides some preliminary evidence surrounding success with conducting group counseling using telehealth technology for people living with cancer. Further research is required to compare effectiveness of individualized versus group counseling for Nutrition education and to evaluate use of telehealth to meet the Nutrition and information needs of a greater number of women with breast cancer living in British Columbia.

## References

- Chlebowski RT, Blackburn GL, Thomson CA, Nixon DW, Shapiro A, Hoy MK, Goodman MT, Giuliano NK, McAndrew P, Hudis C, Butler J, Merkel D, Kristal A, Caan B, Michelson R, Vinciguerra V, Del Prete S, Winkler M, Hall R, Simon M, Winters B, Elashoff RM; Dietary Fat Reduction and Breast Cancer Outcome: Interim Efficacy Results From the Women's Intervention Nutrition Study. *Journal of the National Cancer Institute*. 98 (24) December 20, 2006.
- Hartmuller, VW, Desmond, SM. Professional and patient perspectives on nutrition needs of patients with cancer. *Oncology Nursing Forum*, 31 (5) 2004, 989-996.