Surviving Women's Cancers through Nutrition and Exercise: Eat.Chat.Move

By Karen Berg, MS, RDN, CDN

Background

As the most frequently diagnosed cancer in women, breast cancer is also the leading global cause of cancer-related death, accounting for 23% of cancer diagnoses and 14% of cancer deaths worldwide each year (1). Having overweight or obesity is a significant recognized risk factor particularly in postmenopausal breast cancer (2). Increased adiposity, particularly in postmenopausal women contributes to higher circulating estrogen levels, increasing the risk of developing breast cancer (3). As for ovarian cancer, the strongest risk factor is a family history of breast or ovarian cancer. Similar to breast cancer, excess body weight is one of the modifiable risk factors associated with increased risk of ovarian cancer. Thus, promoting gradual weight loss through dietary lifestyle changes and physical activity during the breast cancer and gynecological cancer survivorship continuum should be a key goal of disease management. Physical inactivity is associated with about a 30% higher risk of epithelial ovarian cancer; sedentary behaviors also appear to increase risk of the same cancer (2). Adopting physical activity along with a balanced and a primarily plant-based diet lead to improved outcomes and a better quality-of-life in breast cancer survivors (4).

Eat. Chat. Move.

The Cancer Institute at St. Francis Hospital in East Hills, New York, includes a multidisciplinary health care team which consists of physicians, registered nurses, patient navigators, social workers and registered dietitians (RD) to treat and care for the whole patient throughout their continuum of care. Located on the same lot as The Cancer Institute is the Sid Jacobson Jewish Community Center (JCC) which is home to the Nancy Marx Cancer Wellness Center. In late 2015, the two Cancer Centers began meeting to see how they could collaborate to better assist oncology survivors in the community. With a generous grant from the Oncology Nursing Society (ONS) along with a secured partnership with the Sid Jacobson JCC, Eat. Chat. Move. (ECM) was born in 2015. The multidisciplinary program for women undergoing treatment or post treatment for breast or gynecological cancer would focus on nutrition, exercise and healthy lifestyle modifications for survivorship. It would also encourage participants to "chat" and open up about their personal experiences with cancer in a relaxed open-environment where they could feel understood. The class series, designed by registered dietitians in consultation with oncology certified nurses and cancer exercise specialists, set out to encourage positive

nutrition habits and exercise activities appropriate for the patient's stage of health and reinforce these healthy behaviors beyond active treatment in a safe, supportive environment.

The goals of the 12-week series included greeting the participants in the habit of weekly exercise as well as learn about food and nutrition related topics that affect survivorship. Participants were asked to sign up in advance for the weekly program which consisted of 45 minutes of nutrition discussions led by registered dietitians followed by 45 minutes of exercise led by a cancer exercise specialist. Participants were encouraged to commit to attending most, if not all, sessions. This program was free of charge and open to any woman diagnosed with breast or gynecological cancers undergoing treatment or after completion of treatment. Patients were required to obtain medical clearance in order to participate in the exercise component. Flyers promoting the Eat. Chat. Move. program were prominently displayed in oncologist and gynecologist offices, around The Cancer Institute, the JCC and at St. Francis Hospital as well as on school campuses and local gyms in the community.

By January 2017, 23 participants enrolled to begin the first session of Eat. Chat. Move. At the first meeting on January 8, 2017 each person received a reusable bag and a folder with educational material, a syllabus (Figure 1), a food journal, a reusable water bottle, a pedometer, food samples and coupons, recipes cards, and contact cards for the RDs leading the discussions. The RDs collected anthropometric data, including height, weight, tri-cep skinfold and hand-grip strength and administered a pre-test (Figure 2) to assess baseline nutrition knowledge. RDs also collected the same anthropometric data on the last day of class, 12 weeks later. To create an open environment on the first day of class, the leaders asked everyone to introduce themselves and identify what they hoped to gain from the series. Many women shared similar histories, fears and hopes for the future. Overall, most women expressed that their goal for the 12 weeks was to learn healthier lifestyle habits and lose weight.

Each week the women completed a specific goal that tied in with the topic of discussion, which they reviewed the following week to assess their progress on identified goals. Some examples of goals were extra steps each day, adding a protein at all meals and snacks, a meatless day or trying ancient grains. Participants seemed to really enjoy sharing their experiences from the previous week, and oftentimes other women would nod in agreement of sharing similar trials and triumphs.

Over the course of the 12 weeks, participants received written education material to go with each topic and appropriate samples such as healthy snacks, paper MyPlates, reusable portion control containers and resistance bands. The leaders encouraged participants to get involved in the discussions and everyone seemed to love sharing tips on what worked for them as well as realizing that they were not alone in their dietary challenges. Portion control was a common concern for many of the participants.

Results

On average 16 people attended each session. Throughout the 12 weeks, women shared their stories and asked questions of the RDs and the exercise specialist. On the last day of the series participants completed an anonymous post-survey to provide honest feedback on strengths of the program and how to improve it in the future.

The feedback from the post-study survey was exceptional. For example, 96% responded "yes" as to whether they would recommend the series to a friend. One woman reported, "Coming to *ECM* has made me aware of how important diet and exercise is to my battle with cancer." While another said, "The bonus reward of attending *Eat. Chat. Move.* was the making of new friends who have all experienced the same joys and sorrows I have in my treatment and recovery. I have absolutely enjoyed sharing my experiences but also listening to others as well."

Figure 1. Syllabus

Week 1 Introduction Measurements Pre-Test

Week 2 Obesity and Cancer

> Week 3 Macronutrients MyPlate Portion Control

Week 4 Healthy Snacks Reading a Food Label

Week 5 Plant-Based Diet Soy and Breast Cancer

> Week 6 Going Out to Eat

Week 7 Cancer Myths

Week 8 Stocking Your Kitchen

> Week 9 Mindful Eating

Week 10 Evidence-Based Supplements

Week 11 Healthy Pre- and Post-Workout Snacks and Meals

Week 12 Maintenance Ways to increase activity throughout the day Although not all women were present to have measurements taken on the last day of class, there were some who had incredible results. Most participants lost at least 2 pounds and one woman lost 17 pounds over the course of 12 weeks. Hand-grip strength also went up for almost all women in attendance while hip and waist circumference went down.

The second series started on April 24, 2017 and was held in the evening so that women who worked could also attend the program. In this session, participants' average age was younger than the previous session. On the first day of class one woman opted out of doing anthropometric measurements and this led to a chain reaction of many people opting out of measurements. Consequently, not a lot of data was collected from the second series. The feedback received on the last day from the second session of ECM, however, was also remarkable and gave the registered dietitians and everyone else involved the desire to continue this program long after grant money was exhausted. Since the grant money was mainly used to purchase food samples and "extra" things like pedometers and food journals, there are plans for another 12-week program to launch in January 2019 without added funds.

Eat. Chat. Move. is a great example of an interdiciplinary program that cancer survivors desperately need for improved survivorship. Participant comments were significant reinforcers of the positive contributions of *Eat. Chat. Move.* Since cancer patients are now living longer following treatment, the survivorship needs are increasing as well.

References

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Figure 2. Nutrition Pre-Test

- It's important to maintain an ideal body weight to prevent recurrence of breast cancer.
 True
 False
- 2. I should stay away from carbohydrates if I want to eat healthy. O True O False
- 3. Red meat is an important food to consume for good health. O True O False
- 4. Rice and beans is a complete protein. O True O False
- 5. If I eat after 6pm I will gain weight. O True O False
- 6. If I skip breakfast, I will lose weight. O True O False
- 7. Raw eggs are healthier than cooked eggs. O True O False
- 8. Which of the following has the most protein?
 - a) Light & Fit yogurt
 - b) 8oz. Skim milk
 - c) Green salad
 - d) Dried fruit

9. Which of the following is a carbohydrate? a) Pasta

- b) Broccoli
- c) Peanuts d) Chicken
- u) chickei

10. Which of the following is a good source of fiber?

- a) Oatmeal
- b) Apple with the peel
- c) Bowl of bran cereal with milk
- d) Popcorn
- e) All of the above