

# MAKING THE CHOICE FOR CHANGE:

## *Further Thoughts on Integrative Medicine*

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### INTRODUCTION

The first article in this series was a review of Integrative Medicine and the rationale behind its adoption. In this article, we will further develop the concepts and review the studies that have demonstrated tangible benefit, especially in breast cancer patients. We will begin by describing how each of us became passionately convinced that these complementary therapies must be incorporated into the breast health pathway at LG Health.

### PERSONAL STATEMENTS

#### I. JENNIFER L. KEGEL, M.D.

To the outside world I was the picture of perfect health at age 41. I exercised, watched what I ate, and maintained a low percentage of body fat. It came as a surprise to hear, "it is an invasive duct carcinoma." I knew that treatment meant surgery. I did not know that I would end-up with bilateral mastectomies and subsequently undergo chemotherapy and radiation therapy. The treatment plan unfolded as a result of pathology reports and Oncotype Dx testing.

Throughout my journey I was fortunate to be surrounded by the love of friends and family. As a radiologist diagnosing breast cancer on a daily basis, I reflected on my patients, some of whom had little if any support system. I counted my blessings and then began to look at my life. I had struggled with chronic depression much of my life. I was a type A "over-achiever." The amount of stress I had imposed upon myself during 41 years was almost immeasurable. Yes, I had become a successful physician, wife, mother, and athlete, but at what price?

Prior to my journey with breast cancer, under the guidance of a professional, I had been personally cultivating a practice of "mindfulness." (Mindfulness is non-judgmental focused attention on the reality of the present moment.) Healthcare providers had for many years recommended I read the book, "Full Catastrophe Living" by Jon Kabat-Zinn PhD. I had refused, claiming that "my life is not a catastrophe!"

I eventually caved, and ironically had completed this reading before being diagnosed with breast cancer. In the book, Kabat-Zinn thoroughly explains and substantiates a practice referred to as "Mindfulness Based Stress Reduction." He provides scientifically-based evidence of its effectiveness in the management of various chronic illnesses, both physical and mental.

This proved to be a valuable "tool in my toolbox" during my journey with breast cancer. There were two events during my journey in which "mindfulness" completely changed my experience and empowered me. The first was the night my hair began to fall out. I was fearful of this and had told myself earlier that day, "I'm going to be the one who doesn't lose her hair." When a large clump of hair fell out, I very matter-of-factly called my cousin who had been lined up to shave my head. She came right over with her razor. I sat at our kitchen table with my husband and daughter by my side as Lisa shaved my head. We laughed, I smiled. It was not an unpleasant experience, as I was able to "be in the moment" for what it was. Another time when I experienced the power of mindfulness was during my 2nd round of chemotherapy when I developed an anaphylactic reaction to Taxotere. After treatment with Benadryl and steroids, the angioedema resolved. With focus on my breath (an integral part of mindfulness), the chest pressure abated and the Taxotere infusion was completed.

After 4 cycles of chemotherapy, my hair grew back, albeit curly. I regained my strength and the 10 pounds of weight I had lost. I completed my journey with chest wall radiation followed by deep flap latissimus dorsi breast reconstruction. I am grateful for all of the excellent medical treatment I received.

My journey was not easy, but much good has come from it for me. I have learned to take a better approach to caring for myself. I listen to my body and do not take my health for granted. I have found self-empowerment through the practices of yoga and mindfulness. I live each day that I am given with joy.

As I reflect on my experience, I view it as a gift, one that I am compelled to share with my physician

colleagues, and most importantly my patients. I now have a more enlightened view of “health.” I know that there is a lot more to health and well-being than conventional Western Medicine has offered to date. Humans are amazing living beings with 3 inseparable elements, mind, body, and spirit. For optimal health and well-being we must nourish all 3 elements of our being and find balance.

## II. DALEELA G. DODGE, M.D.

Many years ago, I was privileged to interview a spectrum of women with breast cancer for a book I was writing. I wanted not only to provide education about this very heterogeneous disease with its varied prognoses and treatments, but also, through examples, to provide hope to newly diagnosed patients, their families, and their friends. Though I failed to find a publisher, I found the experience invaluable as a clinician.

I had included half a dozen women with Stage III disease. I fully expected they would eventually succumb to metastatic cancer, but I was inspired nonetheless to describe their initial recovery after treatment, and the enthusiasm with which they savored the simplest of life’s pleasures or chores. As the years have passed, however, I have been utterly surprised by how well this group has fared. More than a decade after diagnosis, 4 of the 6 are alive and disease-free.

As I followed these women, I had to acknowledge that there were clearly “intangibles” that helped them fare so much better than predicted. As a group I found them surprisingly at peace and deeply reintegrated into life. I began to wonder if we could teach other patients to tap into their own inner strengths, to still anxiety, and to release their need to control every aspect of their environment.

## III. BETH HORENKAMP, M.D.

In my view, Integrative Medicine puts the responsibility for wellness back where it belongs—on the patient. We have become a society obsessed with the presence of “sickness” as the reason for not being well, but the vast majority of patients are not well because they fail to seek wellness. For many this is a difficult thing to accept, but when they do, it is empowering.

## INTEGRATIVE MEDICINE AND BREAST CANCER

Integration is a process of creation in which pieces are assembled to create a whole; holism implies a pre-existing system of nature. In order to be most successful, the art and science of healing should address

the whole person. Integrative medicine integrates conventional and complementary therapies to promote optimal outcome and health by addressing contributing factors that are often ignored. It acknowledges that we must care for the whole person—body, mind, and spirit. Most complementary therapies are not specific to a particular cancer diagnosis but rather address treatment of symptoms or adoption of a healthier lifestyle.

Descartes, founder of modern medicine, helped define medicine as a scientific and highly rationale science of care. But while the Cartesian model works extremely well for treating acute illness, it is ineffective for treating or preventing chronic disease and promoting optimal health. Importantly, Integrative therapies require patient participation leading to empowerment. Complementary treatments can restore to the patient a sense of purpose and some control of their destiny.

The proliferation of Integrative Medicine offerings at major cancer centers speaks to a clear community need. High tech drugs, better targeted radiotherapy, and less-invasive surgical procedures have improved cancer outcomes and decreased patient morbidities, but also at the cost of devaluing time with the practitioner. Patients are cared for by a “team” and often feel less empowered, more confused. Their unique nature and needs are not as well known as in the past when one clinician prescribed and monitored a patient’s care. Elizabeth Kubler-Ross, MD, famous for defining the five stages of grief, stated, “the only thing I know that truly heals people is unconditional love.” The “miracle” survivors who were interviewed for Daleela Dodge’s book all had incredibly strong support systems and knew how to accept and enjoy that love.

The authors of this article, have come to believe that as practitioners of medicine we must provide these resources if we want to see our patients have the best chance at an optimal outcome. Love is found by accepting and valuing oneself. It is fostered when we tame fear and engage with others. Cancer often serves as a wake-up call, leading to decisions which enrich and rebalance a person’s future direction—an opportunity for positive change. The components of Integrative Medicine are an invaluable aid in this process of personal growth and as part of the Barshinger Cancer Center, a means of completing the extraordinary experience we seek to provide to every patient.

It is important to distinguish between “alternative therapies,” which are scientifically unproven and are used instead of mainstream care, and the

“complementary therapies” we are describing, which are used as adjuncts to mainstream care to enhance well-being, control symptoms, and begin a transformative journey in which the patient evolves to make more health-conscious lifestyle choices. Integrative oncology addresses patient’s concerns using a risk/benefit evaluation of both mainstream and complementary care using a multi-disciplinary approach. Most complementary therapies are not specific to a particular cancer diagnosis, but in this article we are addressing the role of this approach in breast cancer.

The Datamonitor 2002 Survey\* indicated that 80% of patients used a complementary therapy (CAM). CAM users are younger, more educated, and more affluent. They are eager and able to play an active role in their own care. Most patients rely on friends, the Internet and the media rather than health professionals for CAM information. A recent study demonstrated that therapies such as acupuncture and mind-body techniques were used less often than unproven botanicals.<sup>1</sup> Most cancer centers in North America and elsewhere have established Integrative Medicine programs to complement their cutting-edge medical treatments.

**INTEGRATIVE MEDICINE AND BREAST HEALTH AT LANCASTER GENERAL**

Our Breast Program at LG Health targets risk reduction, screening, risk assessment, and genetic screening. In terms of risk reduction, it is important to acknowledge that our health is influenced by environmental factors such as diet, physical activity, thoughts, sleep, rest, and the experience of stress. The Karolinska Institute twin studies have shown that cancer incidence is more strongly influenced by environment than by genetics. The good news is that we can change many internal and external factors in our environment through simple lifestyle choices:

- We can choose what we put into our bodies by practicing good nutrition.
- We can maintain a healthy weight through good nutrition and regular exercise.
- We can decrease emotional stress through mindfulness practices - meditation, yoga,
- visualization exercises, and prayer.
- We can seek social connections with ourselves and others which can be profoundly healing.

Lancaster General has offered several different breast cancer support groups over the years. “Support Groups” are comprised of people with common experiences and concerns who provide emotional and moral support to one another. As such, they provide participants with information on the latest conventional medical treatments, and focus on sharing past, present, and future health concerns.

Integrative Medicine programs teach participants “to live in the present,” an important life skill taught through instruction in yoga and meditation. Such “complementary” programs thus equip patients with tools for attaining whole health for the rest of their lives. By actively creating Integrative Medicine services throughout our institution, we will create “support communities” that reach a broader spectrum of patients and empower more individuals to take responsibility for their own health and well-being.

We are in the process of developing a prototype for Integrative Medicine services at LG Health. The new initiative is “Piloting for Power,” a “complementary” therapy program for women who have had or are being treated for breast cancer. Our goal is to help these women experience fellowship, while they are being taught mindfulness through yoga and guided meditation. Providing information on nutrition and exercise with an emphasis on maintaining a healthy weight is an equally important goal of the program. We will also explore the value of creative writing, music, and art therapy. The overall objective of our program is to provide women with tools for self-empowerment. With this new-found power these women will be capable of positively influencing their own health and well-being, not just during their journey with breast cancer, but for the rest of their lives.

**REDUCING THE RISK OF BREAST CANCER WEIGHT MANAGEMENT, NUTRITION, AND EXERCISE**

Healthy weight management, good nutrition, and exercise have all been linked to a lower incidence of breast cancer. A recent study assessed quality of life related to physical health in 2343 survivors participating in a randomized diet trial.<sup>2</sup> There was a statistically significant survival advantage for those patients who reported improvement in self-evaluated physical health with intervention occurring greater than 2 years after diagnosis. These findings support the role of continued lifestyle modification and the importance of

\* The Datamonitor 2002 Survey was a study in which patients were surveyed by questionnaire about the health information they use, including the internet.

continuing to provide resources for survivors long after treatments are completed.

Obesity, a well established risk factor for breast cancer, is epidemic in today's America.<sup>3</sup> Breast cancer rates are higher in obese women for several reasons. First and most simply, fat cells make estrogen. The more fat cells a woman has, the more estrogen is produced, and the more estrogen the higher the likelihood of developing breast cancer. Additionally, fat can collect and store many environmental pollutants that can act like estrogen. There is a well established relationship between the quantity of unopposed estrogen and the development of breast cancer. Today's realities are that puberty and breast development are starting earlier,<sup>4,5</sup> more adolescents and women are taking prescription hormones, and more women and girls are overweight or obese.<sup>6,7,8</sup> All of these "realities" lead to increased estrogens in the body and thus an increased risk of developing breast cancer.

The importance of healthy weight management through good nutrition and exercise cannot be stressed enough. Patients with a high body mass index (BMI) have significantly increased recurrence rates compared to those who maintain healthy weight when matched for treatment and disease stage. A recent study has even documented an increased risk of contralateral breast cancer in patients with BMI > 25.9 The ability to maintain a healthy weight is multifactorial. For example, high stress levels and depression alter internal biochemistry and affect lifestyle choices such as exercise, nutrition, and general self-care.

There is accumulating evidence that beyond the multitude of "wellness" benefits that exercise conveys it may also be an important part of the survival strategy for breast cancer patients. The earliest data is from observational studies. The 2005 Nurses' Health Study followed 2,987 women with Stage I through IIIa breast cancer.<sup>10</sup> There was a 50% lower risk of breast cancer recurrence and death from breast cancer in women who were "active" versus "sedentary." This was the case for both pre- and post-menopausal females and was independent of their BMI. In this study, the active group engaged in greater than 9 metabolic equivalent task (MET) hours per week while the sedentary group did less than 1 MET hour per week. (9 MET hours equates to 3 hours per week of walking at an average pace.)

Three other observational studies have been published: the Collaborative Womens Longevity Study (CWLS), Health, Eating, Activity and Lifestyle (HEAL), and Life After Cancer Epidemiology (LACE).<sup>11,12,13</sup> The

results of these studies were not as dramatic as in the Nurses' Health Study. Nonetheless, each showed a trend towards improved survival in women who engaged in regular exercise. More prospective trials are needed to convince our population of sedentary patients that regular exercise will place them in a better risk category.

Concern about lymphedema has been an obstacle to prescribing exercise for breast cancer patients. This concern was alleviated in 2009 when The New England Journal of Medicine published results of a trial which showed that supervised upper body weight lifting was not only safe in breast cancer patients but actually decreased the incidence of symptomatic lymphedema.<sup>14</sup> This was confirmed in a subsequent Cochrane Database review in 2010.<sup>15</sup>

The American College of Sports Medicine (ACSM) in 2010 published a comprehensive review of exercise interventions in breast cancer patients<sup>16</sup> that looked at 22 trials performed in the adjuvant setting and 32 trials done in the post treatment setting. The review affirmed that supervised exercise is feasible both during and after treatment. Immediate endpoints of improvement in aerobic fitness and strength were met in both groups. Increased flexibility and improved physical functioning was consistently found in the post treatment group. Most of the trials also showed improvements in quality of life, anxiety, depression, fatigue, body image, body size, and body composition. In conclusion, there is mounting evidence that exercise is beneficial to breast cancer patients on many levels, and may even improve survival. As a result of these findings, the ACSM published a set of guidelines for exercise in breast cancer patients.

#### MIND-BODY MEDICINE

Failure to recognize and take advantage of the powerful human mind-body connection has been a shortcoming of Western Medicine. There is currently a reformation of medical education occurring in our country, and medical schools now offer, and in some cases require, courses in Integrative and Mind-Body Medicine.

Mind-Body Medicine utilizes the power of thoughts and emotions to influence physical health. As Hippocrates wrote, "The natural healing force within each one of us is the greatest force in getting well." With Mind-Body Medicine, the focus is on self-awareness, relaxation, meditation, biofeedback, and physical exercise. The goal of any mind-body technique is to "train" the mind to focus on the body without distraction.

**MIND-BODY TECHNIQUES**

Yoga and meditation represent two of the most common forms of Mind-Body Medicine. Both practices teach us to be “mindful,” to listen to our bodies and be aware of reality in the present moment. These activities can be transformative and immensely empowering to the individual, resulting in greater overall health and well-being.

The majority of people think of yoga as a physical activity in which the body is contorted into awkward positions. To the contrary, the asana (physical) practice is only a small part of Yoga, which is a science of the mind. (The word “yoga” means “yoking of mind and body.”) Physical yoga, referred to as Hatha Yoga, was developed to facilitate the real practice of Yoga, the understanding and mastery of the mind. Originally, the objective of asana practice was to tire the body thereby quieting the mind for meditation. Yoga and meditation are both “mindfulness” techniques.

Mindfulness Based Stress Reduction (MBSR) programs that emphasize yoga, meditation, and breathing techniques have become popular across the United States. MBSR has been extensively studied in the treatment of psychological disorders and it has been proven to reduce symptoms of anxiety, distress, and secondary depression.<sup>17</sup> When combined with cognitive therapy, MBSR has been proven effective in reducing the recurrence of major depressive episodes in patients who have been treated for depression.<sup>18</sup> Thus, there is strong evidence that mindfulness can be profoundly healing.

There have been numerous studies investigating the effectiveness of MBSR on mood and symptoms of stress in cancer patients. A randomized controlled clinical trial was performed at The University of Calgary in 1999.<sup>19</sup> Results showed an overall reduction of total mood disturbance by 65% and a 31% reduction in symptoms of stress in the group that participated in MBSR. The MBSR program was effective in decreasing mood disturbance and stress symptoms in both male and female patients with a wide variety of cancer diagnoses, stages of illness, and ages. In 2005, a systematic review of MBSR as supportive therapy in cancer care looked at three randomized controlled clinical trials and seven uncontrolled clinical trials. There were improvements in mood, sleep quality, and reductions in stress.<sup>20</sup>

Currently there are two clinical trials investigating the effectiveness of MBSR programs in breast cancer patients. The first is sponsored by The Danish Cancer Society and began in 2009.<sup>21</sup> The second is sponsored

by The University of South Florida and began in 2010.<sup>22</sup> The purpose of this trial is three-fold:

(1) to evaluate the efficacy of the MBSR program in improving psychological and physical symptoms, quality of life and measures of immune function and stress hormone (cortisol);

(2) to test whether positive effects achieved from the MBSR program are mediated through changes in mindfulness and fear of recurrence of breast cancer;

(3) to evaluate whether positive effects achieved from the MBSR program are modified by specific patient characteristics.

**CONCLUSION**

A diagnosis of breast cancer evokes more emotional response than any other cancer diagnosis. Breast cancer is the only cancer with a giant national fund-raising campaign, namely The Susan G. Komen Foundation. Both local and national media continue to give “focused attention” to breast cancer through various programs such as LG Health’s “Empowered by Pink” and the designation of October as Breast Cancer Awareness Month. The explanation for breast cancer’s distinctiveness is undoubtedly multi-fold. Diagnosis of breast cancer can have a significant psychological effect on a woman, especially if treatment involves loss of her breast, as breasts symbolize a woman’s femininity and nurturing ability as a mother. In addition:

(1) Breast cancer is the most common cancer to affect women;

(2) For women in the U.S., death rates for breast cancer are second only to lung cancer.

With all these facts in mind, it is logical that breast cancer patients are the perfect initial target population for Integrative Medicine Services. This heterogeneous group of patients will also facilitate development of an ideal overall model for Integrative Medicine at LG Health.

Furthermore, in accordance with the Hippocratic Oath, it is our responsibility as physicians to adopt an integrative approach to patient care.

As Christiane Northrup, M.D. asserts, “Health is a vibrant thriving that includes pleasure, joy, and meaning. It is not simply the absence of disease.”

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