

Cancer Treatment and Survivorship: Yoga Therapy meets the Medical Community

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Introduction

Cancer, the term used for more than 100 different types of diseases, is the uncontrolled growth of cells, with the ability of these cells to migrate from the original site and spread via the blood and lymph systems to distant sites in the body. Cells are always growing, dividing and replacing themselves. Many genes produce proteins that are involved in controlling the processes of cell growth and division. A mutation to the DNA molecule can disrupt the genes and produce faulty proteins. This is what causes the cell to become abnormal and lose its restraints on growth. The abnormal cell begins to divide uncontrollably and eventually forms a neoplasm, a new growth commonly called a tumour.

In a healthy individual, the immune system can recognize the neoplastic cells and destroy them before they get a chance to divide. The major risk factors for cancer are tobacco, alcohol, diet, sexual and reproductive behaviour, infectious agents, family history, occupation, environment and pollution.

Cancer is the second leading cause of death in Ontario with a cost to the provincial health care and socioeconomic systems of over \$5 billion dollars annually.¹ Drug therapies and chemotherapy are becoming more costly, and technological innovations in diagnostics, surgery and radiation are also pushing up the economic burden of the initial, continuing and last-year-of-life phases of cancer.² The time costs to the patient, family and friends are not considered, although some argue that time is a cost to society.³ The rate of this disease is expected to soar as the population ages, yet almost 50% of cancers are preventable.⁴ And this doesn't even begin to colour the picture of the overall burden of cancer: the "incalculable emotional suffering of the patient...family and friends".⁵ So, even with the true cost of cancer gravely underestimated, research, scientific literature and policy debates tended to dismiss that viable complementary therapy⁶ such as therapeutic yoga, should be considered integral to the treatment, prevention of recurrences, and for end-of-life care in order to increase the quality of life of those who are touched by cancer. This, however, is changing. The overall goal of this paper is to examine why the perception of yoga therapy is changing in relation to the cancer journey, and how a yoga therapist can be a part of directing that systemic change – in addition to the most important part of her role, that of providing caring services to one patient at a time.

Based on the assumption that yoga is beneficial for cancer patients, *“How should a yoga therapist impart yoga to a cancer patient?”* In this paper I will discuss that question by:

- i. briefly outlining current medical treatments for cancer;
- ii. defining yoga therapy and summarizing the medical community’s view on complementary therapies for cancer and pain;
- iii. giving an overview of the scientific evidence of the healing elements of yoga and how yoga acts on the experience of pain and fatigue
- iv. providing a summary of current research being conducted on yoga and cancer;
- v. discussing the types of yoga programs for cancer patients that are available today;
- vi. giving an overview of the kind of yoga therapy program I think should be provided, and discussing the qualities I think a yoga therapist should have.

Current medical treatments for cancer⁷

Once a diagnosis has been made and cancer confirmed, the next phase is treatment. Each patient's case is assessed based upon their diagnostic information, proven past treatment practice evidence and personal information such as genetics and general health.

The three main ways to treat cancer are surgery, chemotherapy (a combination of drugs) and radiation. Other treatment types are hormonal or medical observation.⁸ Surgery is to remove the cancer, and chemotherapy and radiation are to stop or slow the growth of cancer cells. The course of treatment is determined by the type and stage of cancer, and by the treatment and services the patient wants. Over the course of treatment, patients have frequent assessments to determine their overall physical, emotional and psychological health. Most treatments are on an outpatient basis.

Chemotherapy affects the whole body, so healthy cells may also be damaged temporarily, and this is what causes side effects. Side effects include peripheral neuropathy (numb and sometimes painful sensations in the extremities), fatigue, pain, constipation, diarrhea, nausea, vomiting and abdominal cramps. Some people also experience bone and joint pain from the chemotherapy itself or from medications used to offset the impact of the chemotherapy on blood counts and on the risk of infection.

Radiation therapy is the use of energy from x-rays, gamma rays, electrons and other sources to destroy cancer cells. Radiation damages the DNA in the cancerous cells so they cannot grow and divide. This also temporarily destroys healthy cells. Ensuing pain is managed by medication and non-medication treatments.

Survival rates for the most common cancers have improved significantly, with cancer patients living more than five years after diagnosis. Significant to yoga therapy is that by the year 2017 it is projected there will be about 400,000 Ontarians living with cancer within ten years of their diagnoses. This means that survivor supportive care will be an integral part of the cancer journey. Supportive and continuing care and their significance to yoga therapy will be discussed later.

What is Yoga Therapy and how is it categorized in the schema of complementary therapies?

First, as an aspiring yoga therapist, who wants to see yoga included as a vital component of mainstream cancer prevention and treatment for all patients, I will begin by answering what the opening question of this paper, *how should a yoga therapist impart yoga to a cancer patient*, means to me. Cancer patients feel betrayal, shame and fear about themselves, especially about their bodies. This, I think, begets a loss of self, a loss of purpose, and a loss of dignity. I'll never forget sitting in the doctor's office with my mother after an examination because she hadn't been feeling well. I was only a young girl at the time – maybe not even a teenager – but the recollection of that appointment is still vivid and sorrowful. It took mere seconds, but I witnessed my mom's dignity fade as her shoulders slumped and her eyes cast down toward her sinking chest – as though her dignity was being released along with her breath - her movements keeping pace to the doctor's ever so few words as they pierced her every fibre. He said, "There's nothing wrong with you," as he nevertheless pushed, through the smoky haze of his cigarette, a prescription across the desk; a prescription for what, I don't know. Still looking down, crying softly, my mom took it in her shaking hand and silently we left. I think her life was changed at that moment. Indeed, studies have shown that our own perception of the state of our health is a better predictor than physical symptoms, exams or laboratory tests.⁹ My mom, Anita, died of chronic leukemia at the young age of 71 years. That appointment was neither the cause of nor the diagnosis of her cancer, but it has remained with me an example of the powerlessness that many people feel about

their own health. It defines for me the feeling of betrayal, shame and fear that must overcome people when they are diagnosed with cancer. Webster's Dictionary defines dignity as "the quality of being worthy of esteem or respect."¹⁰ So for me, yoga therapy serves as a complementary means for cancer patients not only to manage their disease, but to self-empower to maintain - or regain – their dignity, worthiness, and essential self that are not in and of themselves the cancer that inhabits their bodies.

Yoga therapy is first and foremost Yoga, a long-established holistic discipline that acknowledges and addresses the multidimensional nature of the human being. The International Association of Yoga Therapists (IAYT), an organization that serves as a professional organization for Yoga therapists worldwide (although the field is not yet standardized)¹¹ defines Yoga Therapy as the "process of empowering individuals to progress toward improved health and well-being through the application of the philosophy and practice of Yoga".¹² Many of the different lineages and styles of yoga also offer their own definitions of yoga therapy; one stating that yoga therapy empowers people to progress toward freedom from disease. The IAYT alone lists twelve different definitions of yoga therapy.

In the medical world, yoga therapy falls under the term complementary medicine (CAM).^{*13} Such therapies are considered unconventional treatment modalities that are nonsurgical and nonpharmaceutical, and that are combined with mainstream care. Whether they have known efficacy is a point of debate between the medical and the CAM communities.

The Society for Integrative Oncology (SIO), an international organization dedicated to the appropriate clinical integration of complementary therapies, evaluated the current level of evidence regarding complementary therapies in the care of cancer patients. Their recommendations for practice guidelines for health care professionals are based on the strength of the evidence and the risks/benefits ratio. (86)¹⁴

Complementary Therapies are categorized according to the characteristics of their therapeutic approaches. In scientific literature, Yoga Therapy generally falls under two categories, Mind-body techniques and Body-based practices. (88) A survey in 2002 found that 80% of cancer patients used complementary therapies, the main one used being botanicals. (89) Dr. Dossey in his clinical work with patients attributes the popularity of complementary therapy to the fact that "therapists – more than physicians – are more supportive to patients finding meaning in their lives when they need it most."¹⁵

The SIO says that for clinicians to estimate the efficacy of a therapy, they should take advantage of reviews by recognized experts and organizations. (91) The SIO analyzed 116 studies and found that mind-body therapies reduced anxiety, depression, and mood disturbance in cancer patients, assisted them in their coping skills and reduced hypertension, insomnia and nausea caused by chemotherapy. (92) Therefore they recommend Mind-body therapies as part of a multidisciplinary approach. (92) The therapies include meditation, relaxation techniques and guided imagery, all of which fall under yoga therapy.

Treating the side effects of cancer: The medical community's view on complementary therapies¹⁶ for cancer and side effects

The Canadian Cancer Society reports that pain is the symptom many people fear most when they're diagnosed with cancer.¹⁷ Therefore, pain has physical and emotional aspects to consider. Pain is defined as "whatever the experiencing person says it is, and exists whenever she says it does."¹⁸ For people with cancer, pain is common and can be caused by the disease itself (tumours, for example), the treatments (such as surgery, chemotherapy, radiation therapy), or by the tests used to detect cancer and determine how well the treatments are working. Thirty to 50% of people undergoing cancer treatment and 70% to 90% with advanced cancer experience pain.¹⁹ Cancer Care Ontario says that most cancer treatment related pain is neuropathic in origin; therefore the use of neuropathic pain adjuvants²⁰ is often the approach to its treatment. (10)

Nerves transmit warnings through defined nerve pathways to the brain, where the signals are interpreted as pain. There are three types of pain: acute, chronic and breakthrough. Acute pain is sudden, whereas chronic pain lasts, and is the type of pain experienced by people with cancer. Pain is considered chronic when it lasts beyond the normal time expected for an injury to heal or an illness to resolve. Chronic pain may be present at all times, or may come and go in a pattern. For about 95% of people with chronic cancer pain, it can be successfully treated with drug and non-drug therapies, although drug therapies are the primary form of treatment.²¹ Breakthrough pain is pain that manifests through regular doses of medication. It can surface quickly and can last a few minutes, hours, or come and go. This pain is relieved by a change in dosage or medication.

To people living with cancer, when pain becomes part of each day, the quality of life beyond the disease is further eroded, and includes disturbed sleep, impaired ability to work, exhaustion, the emotions of sadness, depression and worry that can compound feelings of isolation. Cancer pain can also undermine the patient's ability to fight their cancer by initiating a cycle of feelings of sadness and depression brought on by exhaustion through insufficient nutrition, leading to vulnerability to infection, and so the ability to withstand necessary cancer treatments may diminish.^{22 23} Therefore, the issue of pain as a part of yoga therapy for cancer is important.

In the world of cancer, complementary therapies are known as the supportive methods used to complement mainstream treatments for cancer pain. Their purpose is not to treat the cancer itself, but to help a person cope with cancer, its treatment or side effects, and to feel better. The therapies take a holistic approach by focusing on the whole person. In a brief scan of cancer program websites, not a lot of support for complementary therapies was found, and yoga was rarely listed. This stems from a lack of evidence based outcomes on the benefit of yoga.

From their position that it is up to the patient to choose complementary therapy, the major Ontario medical organizations give faint mention of yoga, let alone yoga therapy. The position is also that people with cancer must make a choice based on the "best available information", and that information should be scientifically based.²⁴ I believe that there may be work to be done to bring an evidence based message of the benefits of therapeutic yoga to the government, and to the cancer medical community and its satellite organizations. Conventional treatments are approved by Health Canada after being tested to see whether they are safe and helpful, therefore therapeutic yoga could follow suit. Cancer Care Ontario plays an active role in cancer research in Canada and recognizes that one of the major difficulties with respect to complementary therapies is the lack of good research data on which to base a reasoned assessment of their safety or effectiveness. CCO encourages health care providers to identify appropriate research opportunities and to seek research funding for the evaluation of complementary cancer treatments.²⁵ As a start, though, providing such organizations with detailed information and descriptions of what therapeutic yoga is would be beneficial. For example, scientific studies have shown that breathing correctly - using the diaphragm and abdomen - can soothe the nervous system and manage stress in a healthy population²⁶; this is a sample of the type of information that could be relayed in

terms of yoga therapy for cancer patients. Further, perhaps this is a project which could be funded by Canadian yoga organizations.

The pain of cancer is usually constant and needs well-managed relief. The current foundation of cancer pain management is medication: drugs for pain relief include paracetamol, non-opioid (aspirin-like medications) and opioid drugs (codeine and morphine). Yoga, including meditation, would of course be helpful, because deep physical and mental relaxation reduces anxiety and can help a person to cope with pain. Managing pain through yoga can improve sleep, energy levels and quality of life.

Current research being conducted on Yoga and Cancer

The quality of life for the cancer patient is affected in so many ways. The stress of going through chemotherapy and radiation treatments may lead to depression, changes in mental functions, and to physiological changes that cause damage to many organs and systems of the body. However, treatment that includes a yoga practice with pranayama, asanas, and meditations of guided imagery may reduce those side effects.²⁷ And, with a lower level of depression among cancer patients as a significant predictor of survival, to include a proper yoga therapy practice is critical to a patient's treatment and recovery process.

Acknowledging that the number of patients who use complementary therapies as adjunct medicine is growing,²⁸ the medical community now has a vested interest in guiding that trend through good scientific inquiry and research evaluation.²⁹ This has opened the door to a call for creating yoga therapy practice competency standards and protocol, and for setting up regulatory bodies that meet the criteria of a "traditional system of medicine and of professionalism" in order to "protect the public."³⁰ A professional regulatory body and thus universal standards of training and scope of practice do not exist for yoga therapy, but the IAYT has set up a committee to look at these issues.³¹ Indeed, as of July 1, 2011, the committee has submitted an *Educational Standards for the Training of Yoga Therapists* draft proposal, and has called for reviews from its membership.³² This is the route to ensuring that not only high standards are met in order to gain greater credibility, but that the public, policy making, medical and scientific communities are well informed and confident in the efficacy of yoga therapy.

A multidisciplinary panel of experts in oncology evaluated a body of data on complementary therapies in the care of patients with lung cancer.³³ The panel found

that mind-body modalities can reduce anxiety, mood disturbance and chronic pain, concluding that complementary therapies have an increasingly important role in the control of symptoms associated with cancer and cancer treatment.³⁴ The medical and scientific communities presently support more rigorous studies of yoga's therapeutic role. The yoga under study should be consistent and similar each time it is administered, in order to control variability but most studies involving yoga do not enumerate the poses that were utilized, how long they were held or which style of yoga was emphasized. This makes reproducing results impossible.

For example, in the 12-week study, *Yoga for Persistent Fatigue in Breast Cancer Survivors: Results of a Pilot Study*, Beth Sternlieb, Junior Intermediate Certified Iyengar Yoga teacher, on the clinical staff of the UCLA Pediatric Pain Program, yoga instructor in the study, in email correspondence with me, provided the following specifics about the yoga sessions:

- a. The modalities were Iyengar Asana and Pranayama
- b. Pranayama: Ujjayi was the only breathing technique used; it was done at the end of class for 15 minutes, in supine position on the floor with chest support. This was used in 1/3 of the classes.
- c. Restorative: Passive poses were held between 5 to 10 minutes and the teacher made adjustments. Breathing was unguided.
- d. Asanas: The number of poses varied in each class with the sequencing changing depending on the needs of the students in the class. Documentation included how long each pose was held, and the teacher recorded her observations of the participants' reactions, movements, and uncomfortableness.

Another study, *Yoga Improves Quality of Life and Benefit Finding in Women Undergoing Radiotherapy for Breast Cancer*, examined the effects of yoga on quality of life (QOL) and psychosocial outcomes. Sixty-one women were randomly assigned to either a yoga or a wait-list group. Yoga classes were taught biweekly during the 6 weeks of radiotherapy. The yoga program was developed by Vivekananda Yoga Anusandhana Samsthana (VYASA), a yoga research foundation and university in Bengaluru, India, and was taught by VYASA trained teachers. It included: (a) warm-ups synchronized with breathing (10 min); (b) gentle, yet active postures (forward-, backward-, and side-bending asanas in sitting and standing positions, cobra posture, crocodile, and half-shoulderstand with support) (25 min); (c) deep relaxation technique (in Savasana, 10

min); (d) alternate-nostril breathing (5 min); and (e) meditation (10 min). Participants received a CD and instructional manual for home practice, and were encouraged to practice daily outside the classes and after the end of radiotherapy. Results indicated that the yoga program was associated with statistically and clinically significant improvements in aspects of QOL.³⁵

Dr. Lorenzo Cohen, professor and Director of the Integrative Medicine Program at the M.D. Anderson Center in Houston, and who was the principal investigator for the above study, says that a daily practice of six months is needed to turn to a path of wellness with a changed physiology. However, as the yoga studies conducted to date show, conclusions about the effects or outcomes of a yoga practice have been drawn after an 8- to 12-week period of yoga.

One well-known research program in Canada for cancer patients is called YogaTHRIVE. It is a therapeutic yoga program developed by yoga teacher, Susi Hatelty-Aldous, for cancer patients through research at the University of Calgary under the direction of Dr. Culos-Reed. It has been shown to assist people in handling the effects of chemotherapy and radiation. It is a 7 week series of 75 minute sessions. The research was conducted from 2002 to 2007) and measured both physical and psychological outcomes. Participants were randomized into either the yoga program or a control group. Results found improvements in the following areas for the yoga participants compared to the controls: increased overall physical activity levels, improved strength; improved mood states; decreased levels of perceived stress and improved quality of life.

YogaTHRIVE is now analyzing the results from their yoga expansion classes and the inclusion of on and off treatment survivors and their support persons. Feedback suggests that the program has been highly beneficial for helping to minimize or improve treatment-related side effects, improve overall quality of life, and increase confidence for engaging in an active lifestyle.^{36 37}

Recommendations for conducting trials on the effects of yoga therapy for cancer patients

After a review of yoga trials conducted with cancer patients, the authors of the review concluded that results of the effects of yoga varied depending on the “type of cancer, stage of disease, and point in the treatment trajectory.”³⁸

The critique of those trials is that the yoga focused on general stress reduction rather than on targeting specific areas of the patient's functioning. This critique is consistent with how the medical community questions the validity of the generality of the claims of the benefits of yoga for cancer patients.

The medical community wants to know how yoga works on what, and to do so, specific information is needed. Therefore, recommendations for conducting empirical trials on yoga therapy for cancer patients so that yoga therapy becomes a part of new models of care to transform medicine are as follows³⁹⁴⁰:

1. Implement programs to target specific symptoms cancer patients typically experience. For example, for breast cancer survivors experiencing fatigue, design a clinical trial based on backbends, such as Setu Bandha Sarvangasana, which are believed to reduce fatigue symptoms. (170)
2. Specify the yoga techniques used in the trial and describe why those were selected: are the postures for a specific cancer such as breast cancer, or are the postures applicable to all cancer patients?
3. To evaluate the effectiveness of the yoga therapy, identify specific outcomes: select postures for a certain cancer symptom such as fatigue. This way, the outcomes of the trial are directly linked to the techniques selected for evaluation.
4. Design control groups to “control for nonspecific aspects of the interventions, such as group context, instructor attention, and physical activity.” (171)

To help the Yoga Therapist, an advanced yoga therapist training could include an introduction to clinical trials. As well, the yoga therapy community could do outreach: set up booths at health care events, distribute information where patients and their families look for it. More and more medical organizations are looking for evidence of the efficacy of complementary therapies, therefore these sorts of initiatives would help inform the medical community and create important partnerships in the care of clients. A yoga therapist, Bonnie Berk, recently received a grant from the American Holistic Nurses Association to study the long term quality of life benefits of a Cancer Wellness Program. Appendix I includes ideas on how to create local, regional and provincial yoga therapist networks.

Cancer Survivorship: Yoga Therapy as a Part of the Continuing Care Model⁴¹

Survivorship is defined as the period that begins after the initial cancer diagnosis and continues well beyond the last treatment. Overall five-year survival rates in Canada

are approximately 60%, and is expected to continue to increase. The physical, psychosocial, mental and spiritual consequences of cancer and its treatment are a part of the realm of survivorship. It is only recently that the survivorship phase has become the focus of attention for researchers, clinicians and policy-makers. The research priorities for cancer survivorship in Canada are effective care models, effective interventions and providing evidence-based recommendations for improved care..

Cancer survivorship is now a national priority. Funded by the federal government the Canadian Partnership Against Cancer brings cancer survivors, patients and families together with cancer experts to achieve prevention, improved quality of life, and a lower likelihood of dying from cancer.⁴²

The Cancer Journey Action Group organized a National Invitational Cancer Survivorship Workshop in 2008 attended by cancer survivors, health providers, policymakers and researchers to discuss the type and nature of survivorship programs required. The issues identified were ongoing health concerns, including symptom management, and dealing with fatigue and pain, and the emotional and psychological challenges related to fear of recurrence, returning to previous activities, and regaining a sense of control over one's life.⁴³

Continuing care for the cancer patient, therefore, includes survivorship follow up. After months of being debilitated by a disease and its treatments, patients lose trust in the ability of their body. Yoga therapy sessions can be a safe setting, where the patient learns not only gentle movements, but how to be gentle on themselves. Since yoga strengthens and calms the nervous system, increases blood flow to internal organs and brings more oxygen to the cells, it is a modality that should be a component of survivorship care. Indeed, as, Dr. McCall says, "Yoga builds on itself, becoming more effective over time."⁴⁴

Yoga Therapist Qualities

First and foremost, a yoga therapist is ethical. In keeping with living in accordance with the Yamas and Niyamas, a yoga therapist is guided by the ethical duties of the health care profession, being that of nonmaleficence, the obligation to do no harm, and that of beneficence, the obligation to act in a way that is beneficial to the client. A yoga therapist works with clients, the medical community and organizations that offer support for the patient, caregiver and medical community. Support

organizations provide services that include the dissemination of research information, support groups and complementary therapies. The yoga therapist may desire to build relationships with each group.

A yoga therapist should always be kind, respectful, professional in appearance and deportment, and be organized and prepared. One should be knowledgeable about the effects of yoga on cancer, about current research, using precise, scientific language when appropriate, and caring, gentler language when working with a client, being cautious not to make unfounded claims. The therapist is authentic, and the therapist remains true to herself and respectful to her audience.

In addition to a kind and caring demeanour, a therapist is quick to sense and accept incompatibility with a client, should it arise, and be able to diplomatically suggest another therapist. So the therapist needs to be flexible, with a genuine attitude that the patient has the ability to help themselves get better.

I believe a yoga therapist represents not just herself, but the whole field of yoga therapy.

If a goal is for yoga therapy to become a partner in cancer prevention and treatment, then research is an important component of providing yoga therapy. A therapist would most likely want to be involved in research in her area and have a role in reconciling Western medicine with yoga therapy.

Yoga Therapy Session Template

A general yoga therapy program will typically include a combination of pranayama, meditation, restorative poses and asana (likely with some modifications and increased use of props); with sound (chanting), yoga nidra, structural alignment, ayurvedic or macrobiotic intervention, energy (chakras) and psychological components used when appropriate. The following is a sample 90 minute yoga therapy session for a cancer patient post-medical treatment, so it includes the elements suitable for that client. All sessions are one-on-one. This sample is the suggested structure for all sessions, with differences in the content of each component reflecting where the client is on the continuum of care, the immediate needs of the client, and the length of the session. Sessions begin and end on time.

All props that will be needed are beside the mats so the session flows smoothly. All sessions incorporate aspects of the *Yamas* and *Niyamas*. Every session begins with client and therapist sitting on their mats (or on chairs depending on the client's situation)

facing each other, hands in *Anjali Mudra*. This not only allows for the therapist to introduce the theme and general intention* of the session, I believe it sets a foundation of safety, trust and compassion since client and therapist are at eye level, thus helping to offset anxiousness. This is also the time to talk about *Ahimsa*, reminding the client to be kind and compassionate towards him or herself.

Throughout the session, the therapist guides the client with a gentle and rhythmic voice that not only creates a sense of calmness, but the voice serves as an instrument of focus for the client: due to their cancer and pain, the client likely is not able to still their mind within an environment of silence. A soothing voice that has the cadence of a flowing breath cycle will help the client absorb the same rhythm in their breathing and in their movements. Soft music is appropriate, as is soft lighting, which can easily be adjusted - but not too low - depending on the segment of the session. In the same vein, the client may not be comfortable closing their eyes, so the therapist, as with other aspects of the therapy, makes the suggestion, yet invites the client to make the choice.⁴⁵

i. Every session begins with Savasana in order to calm the sympathetic nervous system. The posture is modified if necessary with a blanket under the knees, lower back and/or the neck so the client is comfortable. Even in a chair, support with blankets may be necessary. Have the client become aware of their natural breath cycle, feeling the air enter and release from the body through the nose. (5 minutes)

ii. While in Savasana, guide the client through three-part breath Pranayama so they begin to feel a lengthening of their inhale and exhale, and can feel the belly, mid chest and upper chest rhythmically expanding and contracting. Research shows that rhythmic breathing can activate the brain's anti-pain systems.(Pearson) Based on research showing that rhythmic movements of the jaw may reduce pain, adding a *Mantra* is suggested. (Pearson) (5 minutes)

iii. a. Still in Savasana, guide the client through a Body Scan. People with cancer often have a distorted body image so body scans may be useful in helping them to become aware of thoughts and emotions associated with sensations they feel in their bodies and to learn to be accepting without judgment, thus incorporating the principle of

Aparigraha. Body scans are also a practice in concentration, so here, *Dharana* is invoked. (5 minutes)

b. An alternative is to guide the patient through a Witness Practice (taken from Jnani Chapman). This is a physical and psychological check-in that includes looking at what is happening emotionally, mentally and energetically for the person at that moment. It is a process that teaches acceptance of whatever they become aware of without trying to change anything, invoking *Satya*. (5 minutes)

iv. To build on the concept of awareness, Restorative Postures are next. Return the client to the rhythm of their breath, since the next segment, the Asana practice, will hinge on the breath. Here, Ujjayi breathing may be introduced, guiding the client to feel the breath cycle in their throat. As well, introduce the concept of surrendering into a pose. Select one restorative only, if there are two sides to the posture, and have two postures if there is only one side. (10 minutes)

v. The Asana practice now begins and consists of gentle, repetitive movements, with very few postures being held, if any.* Whether asanas are practiced in a chair, on a mat or a combination of both depends on the client's stage of cancer treatment or recovery. The first step is to have the client regain a rhythmic breath and to learn that it is the breath that initiates the movement, and that the breath and movement are in unison. Then the warm-up consists of arm movements,

If during the asanas the therapist notices the client is perhaps more tired or in more pain than usual, shorten the asana portion and lengthen the meditation and final Savasana. Do not ask the client if you may do so; just imperceptibly change the planned sequencing of the session. ** See Appendix A for sample Asana practices

*The intention the therapist sets is different from the client setting an intention. As is common in yoga classes, I suspect many yoga therapists also begin a session by encouraging the student/client to set an intention, reminding the student during the practice to return to this intention. I believe that during a therapy session, the client is given enough to work on: breath, awareness/mindfulness, movement, listening, adjusting. Therefore, I suggest reserving setting intentions for the home practice; the

client is practicing alone, so at home, setting an intention somewhat takes the place of the therapist and teaches the client to stay present.

**Likewise, if the therapist observes that other segments of the therapy session should be altered due to the client's changed physical condition and/or emotional response, she makes those changes discreetly. This ensures that the client's sense of being is not compromised. Ideally, the client reaches a stage in their being where they acknowledge their state without judgment and ask for changes. These things can be discussed after the practice, not during. (15 to 25 minutes)

vi. Guide the patient through a breath awareness or a contrast of awareness Meditation segment. (5 to 10 minutes)

vii. End with Savasana, incorporating by rendering a deep sense of peacefulness and by revealing the power of the mind to change perceptio Yoga Nidra. The client has spent the session learning to breathe, become mindful and moving. Yoga Nidra completes the sessionns. (10 minutes)

The therapy session ends as it began, with the client and therapist seated, facing each other on their mats or on chairs. Bring the client back to a calm, normal breath, while observing the client's sense of well being after the practice. Therapy sessions may be weekly or less, so gently remind the client to follow their customized home practice. The home practice becomes the principle of *Tapas*, that is, discipline, so necessary to return to wellness. (See *Appendix for a sample customized home practice.*)

Lastly, if there are any outstanding issues, which can range from appointment scheduling, payments or something that came up during the practice, I believe that they should not be addressed on the mat or in the sanctity of the practice area. I would advise to keep these types of concerns separate from the yoga practice itself.

Conclusion

This paper took the direction of looking at how the scientific and medical communities perceive yoga therapy because when I first started to read articles on yoga and cancer, there seemed to be an unveiling of a theme: yoga research was abundant, but was not well done. Among the issues with the studies was that there was no consistency in the yoga techniques (such as asana) used across studies or sometimes even in one study, which makes data analysis inaccurate. So this led me to research what yoga therapists and supporting organizations such as the IAYT are themselves saying about the field.

Here, I found even the basic definition of yoga therapy was as broad as it was vague; this itself would cause issues in designing clinical trials. It appeared to me that stakeholders know yoga therapy is beneficial but how to measure it, let alone define it or even apply it consistently has seemed problematic. And, this was all without even addressing the role of the mind and the spirit in healing the body, the foundation of yoga. In his book, *Healing Beyond the Body: Medicine and the Infinite Reach of the Mind*, Dr. Dossey says that the meaning of life that patients find during their illness can ease of the burden of disease. There is a compelling body of evidence – more than 1600 published studies – showing that the hope and meaning people find in spiritual beliefs affect health outcomes and can make the difference in life and death.⁴⁶ This is a view supported by the Society for Integrative Oncology as noted elsewhere in this paper. Dr. Dossey also states that healing involves the consciousness of things - according them a sense of sacredness and respect – the cells, tissues, bacteria, tools, medications, uniforms, building...⁴⁷ In her yoga work with people with cancer, Jnani Chapman also incorporated such language. Dr. Dossey asks, beyond technical expertise, can medicine and yoga serve patients with wisdom, compassion, empathy and love? He calls this respiritualizing medicine.

Michael Lee, founder of Phoenix Rising Yoga Therapy, defines Yoga Therapy as a holistic healing art that, instead of prescribing treatments, invites deeper presence, awareness and connection with self through the application of a combination of classical yoga techniques and contemporary body-mind psychology. He says that through this connection comes knowing ourselves more fully, and out of this knowing, we are “more easily moved to embrace the opportunity for change, growth and enhanced well being in body, feelings, thought, and spirit.” I believe this description captures what yoga therapy, unfolded by a caring, compassionate yoga therapist, can do for cancer patients

throughout the many stages of their transforming lives: it can provide a direct line to their essential selves, to their dignity.

The Society for Integrative Oncology, commenting on the benefits of complementary therapy, says that “each time patients feel the benefit of a technique they are using they reinforce a sense of control over their own lives and counter feelings of hopelessness and helplessness.” My mom died of chronic leukemia at 71 years old: my service, through yoga, for people who suffer from physical, mental, or emotional illness, discrimination and loss of connection to themselves, is in her memory. I couldn’t do anything for her when I was young. Not believing the medical community had the answers, yet allowing my mom to continue to acquiesce to the power of their all-knowingness, I didn’t do anything for her when I was older. On that day, I believe my mom was left thinking she wouldn’t get better; indeed, the years of her declining health and interest in life demonstrated that. In her memory, through yoga therapy, I hope to pass on the healing union of the mind, body and spirit. The words of one cancer patient in a yoga therapy program captures the vast and luminous realm of yoga, “There's been enough progress, subtle and incremental, to believe I can get much better.”

APPENDIX A

Sample Asana portion of a typical Yoga Therapy Session for a cancer patient post surgery and treatment, with all Asanas in a chair (adapted from Jnani Chapman).

1. Sitting in Tadasana with feet on floor on a rolled up soft mat, and if necessary; sit on a blanket to align spine and for comfort; hands on thighs not to tire arms. Even though it isn't in the usual order, the first time, just do a gentle skull loop to align the head.

Instructions: Keep your awareness present to the movement as you witness what arises for yourself with each breath. Let the breath be full and complete. Keep your breath flowing evenly in and out and rhythmically like a wave lapping the shoreline. Feel your breath flow in and out of your nose and hear it passing through your throat. Keep this rhythm through every asana. Let this be your intention today: to feel and hear your breath while you feel your movements with complete attention. Stay in your comfort zone. Go slowly and evenly: it isn't how far you can go in your movements that matters, but how you can soften into the movement with conscious awareness, allowing your breath and movements to be synchronized.

1. Neck and Shoulders: to isolate muscles and increase range of motion and flexibility. Stay in your comfort zone. Stop before I tell you to if you're feeling fatigued.

-Vertical movement: Continue with the rhythm of your breath and when you're ready, on an **exhale**, gently lower your chin down toward your chest. Inhale and lift your chin toward the ceiling. Repeat for 5 cycles of breath and return to neutral.

-Horizontal: On an **exhale** turn your head to the right bringing chin toward and above the shoulder. Inhale and return to center. Exhale and turn to left; inhale return to centre. Repeat each side 5 times.

-Tilting: On an **exhale** let right ear drop toward the shoulder. Inhale and return head back to neutral. Exhale and left ear tilts toward left shoulder. Maintain a soft gaze in front of you. Repeat 5 times each side coordinating length of breath with how far you take your movement.

-Shrugging: On an **inhale** lift the shoulders up toward the ears then gently squeeze them. Exhale and let them softly lower then gently press them down. Maintain a soft gaze in front of you. Repeat for 10 breath cycles. Return to neutral.

-Full-circular rotation: On an inhale bring the shoulders forward in front lift them up toward the ears. Exhale and gently bring the shoulders behind you and then lower them back into neutral. Keeping a rhythmic flow of breath and movement, continue for 5 to 10 breath cycles.

To end the neck and shoulder series, gently shake out the arms and hands. Move your shoulders, neck and head around easefully any which-way as you mindfully explore how the shoulders and neck feel. You should notice an increase of range of motion and flexibility.

3. Upper Body Lymphedema Drainage Support Stretches: remember to stop and to rest as soon as any muscles indicate fatigue, tiredness, heaviness or discomfort. Keep arms and elbows at shoulder height or slightly higher when moving them; this helps drainage of fluids from upper limbs back into the chest area. Begin by bringing hands to heart in Anjali Mudra and regaining your rhythmic breathing.

-Wing Blades Opening: On an **inhale** stretch arms out to the side parallel to the floor extending out from center feeling your shoulder blades move apart. On an exhale relax and soften arms in place, feeling as though they are floating suspended on water. Continue as long as it feels comfortable without any strain, and then return hands to heart continuing your rhythmic breathing that you can feel and hear.

-Angel Wings: On an **inhale** stretch your arms out to the sides parallel to the floor. Pause and exhale. Inhale and stretch arms up, as high as comfortable (eventually arms will go higher, coming alongside the ears). Feel your rib cage also stretching upward. Exhale and lower arms back down parallel to the floor, feeling them maintaining a stretch. Continue the movements for 5 to 10 breath cycles, imagining your arms effortlessly floating on water, resting at the first sign of muscle fatigue.

-Arms & Shoulder Shrug: Bring palms together at the chest, elbows pointing out to the sides and forearms parallel to the floor. If your palms don't touch or forearms aren't able to remain parallel to the floor, bring just fingertips together. On an **inhale** shrug shoulders up toward the ears and gently squeeze them keeping the lower arms parallel to the floor. Exhale and keeping forearms parallel to the floor, lower shoulders, gently pressing them toward the hips. Continue the movements for 5 to 10 breath cycles, resting at the first sign of muscle fatigue.

Wind Song: Bring palms together at the chest, elbows pointing out to the sides and forearms parallel to the floor then inter-lace your fingers. On an **inhale** extend palms out in front of you stretching

the arms almost straight. Pause and exhale. Inhale and lift palms over head to a comfortable height; palms face sky. Exhale and leading with bent elbows, bring arms down to each side, wiggling fingers like rain as they lower all the way down. Continue with the movements, trying to take palms to front and overhead in one inhale. Continue as long as it feels stopping before you generate any discomfort or strain.

-Cormorant: Bring palms together at the chest, elbows pointing out to the sides and forearms parallel to the floor. Inhale and move hands apart until wrists are above the elbows. Exhale and pause. On an inhale open arms back a little ways feeling the chest expand and keeping the wrists directly above the elbows. Exhale and lead elbows toward one another in front of the chest, keeping lower arms parallel to each other and letting hands go only as far as they remain above elbows. Continue as long as it feels comfortable stopping before you generate any discomfort or strain.

-Butterfly Wings: Bring palms together at the chest, elbows pointing out to the sides and forearms parallel to the floor. Inhale and raise hands in front of forehead (or chin). Exhale and pause. Inhale and lift elbows up toward ceiling. Exhale and bring the elbows toward one another in front of you like the wings of a butterfly closing. Continue as long as it feels comfortable stopping before you generate any discomfort or strain.

APPENDIX B.1

It is important for a yoga therapist to make ties within the complementary therapy field, and the health care, policy making and research communities. Here is a sample of such communities in SW Ontario.

1. **Research Institutions:**

London Regional Cancer Program www.lhsc.on.ca/About_Us/LRCP/

Provides comprehensive in- and outpatient cancer care and a full range of support services to help patients and their families through the cancer journey

Robarts Research Institute www.robarts.ca

Conducts basic and clinical research on many of today's most devastating diseases

Thames Valley Family Practice Research Units <http://www.uwo.ca/fammed/tvfpru/>

A partnership between researchers and providers of care to undertake relevant health services research

The Cancer Research Society <http://www.src-crs.ca/en-CA>

Supports basic research towards improving prevention and treatment of cancer

Ontario Institute for Cancer Research <http://www.oicr.on.ca/>

Research with a focus on discovery of new concepts and translation of research findings into programs, technologies and therapies

Ontario Health Study <https://ontariohealthstudy.ca/>

Ontario citizens driven long term study to develop strategies for the prevention and treatment of diseases like cancer

2. **Policy Makers:**

Local Health Integration Networks (LHINs) www.lhins.on.ca

Plans, integrates and funds local health services, including hospitals

South West Regional Cancer Program <http://www.sw-rcp.on.ca/>

Oversees the standards of delivery and quality of cancer services for the 8 counties in the SW Ontario LHIN

Public Health Agency of Canada (PHAC) <http://www.phac-aspc.gc.ca/>

Reduces pressures on health care system by promoting the prevention of chronic diseases like cancer, by analyzing and addressing modifiable risk factors such as levels of physical activity

3. **Community Health Care Providers and Umbrella Organizations:**

Cancer Care Ontario www.cancercare.on.ca

The prov. govt's cancer advisor responsible for the continual improvement of cancer services; implements prevention programs; works with health care providers to plan services to meet patient needs and to improve cancer care

South West Community Care Access Centre <http://www.ccac-ont.ca/>

Responsible for contractual delivery of community care coordination

Southwest Supportive Care Cancer Network gale.turnbull@lhsc.on.ca

Plans for supportive care services; development of supportive care delivery model; development of a communication strategy to facilitate partnerships among supportive care providers

APPENDIX B.2

Examples of strategies currently in development in the delivery of health care providing opportunities for yoga therapists to collaborate with organization involved in the care continuum

1. **SWCCAC and South West Supportive Care Network:** In a presentation called *Supporting Patients and Families through the Cancer Journey* given at the SW-RCSA (South West Regional Cancer Support Association) May 2010 Annual General Meeting, Donna Ladouceur of the SW CCAC and Gale Turnbull of the LRCP said that the following programs are in development:

- An evidence-based continuum of care model that provides promotive care, preventative care, curative, rehabilitative, supportive care
- A supportive care interprofessional group including social work, spiritual care, physiotherapy
- A Soul Medicine Group (not explained in the presentation)
- A Transition from Treatment/Survivorship Program

2. **Disease Pathway Management:** Under Cancer Care Ontario, DPM sets priorities for cancer control, plans cancer services, improves the patient experience, quality of care and identifies any gaps in the system across the cancer journey from prevention to recovery and end of life care. It discusses these issues with a wider community of stakeholders for further feedback.

<http://www.cancercare.on.ca/cms/one.aspx?pagelid=8828>

APPENDIX C

The position on complementary therapies major provincial and federal organizations take:

1. The London Regional Cancer Program (LRCP) is an academic centre that serves Southwest Ontario, and is one of the largest regional cancer programs in the province. It offers the most advanced treatment technology in the world. The LRCP neither endorses nor rejects the use of complementary therapy, but states that the patient may use a variety of such therapies.

http://www.lhsc.on.ca/Patients_Families_Visitors/LRCP/ComplementaryTherapies.htm

2. Women's Health Matters, the website supporting Toronto's Women's College Hospital, has 59 listings under its complementary approaches section including articles and organizations; yoga therapy is not listed. <http://www.womenshealthmatters.ca/index.cfm>. March 24 2011.

3. In August 2010 Cancer Care Ontario produced a position paper on cancer treatment related pain in which they discuss complementary therapies.⁴⁸ Citing studies that looked at the effect of aromatherapy massage, reflexology, reiki, acupuncture and music (but not yoga) on cancer pain, they state that the "evidence to support their use in the treatment of cancer pain remains weak". (p12) They add, however, that any pain relief was short term, and patients found their experience positive. (p12) Interestingly, the introduction of the paper concedes that cancer pain is not just physical, but affects a patient's psychological, social and spiritual domains of life, therefore also affecting their response to their disease and their ability to self-care. Therefore, I think that to dismiss any relief from pain appears biased. *Cancer Care Ontario's Symptom Management Guides to Practice: Pain.*

<http://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=77294>

4. The Canadian Cancer Society website lists yoga on its complementary treatment page, and it describes yoga as using stretching, breathing exercises and meditation. It adds that yoga can help the patient to feel more relaxed, but cautions that some yoga postures are hard to do.⁴⁹ In other words, no mention is made of therapeutic, restorative or gentle yoga. Canadian Cancer Society. March 24 2011.

http://www.cancer.ca/Canada-wide/About%20cancer/Treatment/Complementary%20and%20alternative%20therapies/Yoga.aspx?sc_lang=en#ixzz1HYowJVW

APPENDIX D

Journals and other sources for Resources

Journals: Peer reviewed, scientific and professional electronic and hard copy journals publishing studies and reviews of studies on the effects of yoga on cancer and other health related factors

1. **Evidence-Based Complementary and Alternative Medicine (eCAM):** an international, peer-reviewed journal that seeks to understand the sources and to encourage rigorous research in

complementary and alternative medicine; features e-Table of Contents alerts on newly published research and other articles.

<http://www.hindawi.com/journals/ecam/>

2. **PubMed:** e-publication for U.S. National Library of Medicine and National Institutes of Health; citations for biomedical literature, life science journals and online books; includes links for full-text content from PubMed and publisher websites. <http://www.ncbi.nlm.nih.gov/pubmed/>

3. **International Journal of Yoga Therapy:** an annual, peer-reviewed journal of scholarly and research-based submissions related to any tradition or aspect of Yoga therapy. Contains articles on: non-peer-reviewed editorials on any issue related to the research and practice of Yoga therapy; Issues in Yoga Therapy, peer-reviewed scholarly articles that address issues, challenges, and controversies in the research and practice of Yoga therapy; Research, reports of original research and case studies; Yoga Therapy in Practice, continuing education articles describing specific approaches to Yoga therapy; Interviews with leaders in the field of Yoga therapy and integrative healthcare.

4. **The Canadian Interdisciplinary Network for CAM Research (IN-CAM):** an interdisciplinary research network in Canada. <http://www.incamresearch.ca/index.php?id=1,0,0,1,0,0&menu=1>

5. **Yoga Therapy Today:** Yoga therapist training reports, interviews with leaders in the field of Yoga therapy and integrative healthcare, research summaries, cases studies or teaching guidelines for a specific population, editorials on important issues facing the field of Yoga therapy.

Other sources for Resources

1. **The Directory of Women's Health Researchers:** <http://researchers.echo-ontario.ca/>. This database is a collaborative project between Women's College Research Institute (WCRI) and Echo and aims to provide a comprehensive listing of researchers working in the field of women's health and related areas. It will ultimately support a broad community of women's health scientists and students from across Ontario. Exercise is included as a research theme,

2. **International Union Against Cancer** (<http://www.uicc.org>) Geneva, Switzerland. A global association of cancer-fighting organizations that aims to educate people about cancer and control the disease worldwide; publishes the *International Journal of Cancer*. Brings together an international network of patient advocate groups, cancer societies, public health officials, and research and treatment centers.

3. **Research Advocacy Network** (<http://www.researchadvocacy.org>) Focuses on education, support and connecting patient advocates with the research community to improve patient care. Develops materials to advance patient-focused research and works to equip advocates for more effective advocacy. The organization hopes to collapse the amount of time it takes for research results to reach community practice.

4. The CAM in UME Project. (<http://www.caminume.ca/>). Digital resource of CAM-oriented teaching/learning resources to help medical school instructors impart to students the knowledge, skills and attitudes to discuss complementary medicine with patients in an informed and non-judgmental manner. Includes information on studies of yoga and cancer.

APPENDIX E

Yoga Therapy Associations and Conferences

- a. Symposium on Yoga Research: an annual conference presented by IAYT: In 2011, a comprehensive academic research meeting in the West devoted to Yoga therapy research; key features will be Yoga research presentations by leading scientists and a workshop on the basics of Yoga research.

APPENDIX F

Creating local, regional and provincial yoga therapist networks

Draft information/registration form for creating supportive yoga therapist regional and provincial networks consisting of therapists, HCPs, and researchers.

Dear Yoga Therapist.

We're proposing that Yoga Therapists within geographic regions form networks to assist each other in many areas such as research, developing studies, and educating the public and health care communities on the benefits yoga therapy. To do this can provide opportunities to give presentations about yoga therapy at events, staff meetings, health care conferences and the like.

Yoga therapy is a growing field in Canada and is on its way to being regulated. Meanwhile, training and practices vary widely, and the wealth of information on the Internet is overwhelming. Research on the benefits of yoga therapy is on the rise, as is the quality of the research. If local, regional and provincial yoga therapists collaborate in developing therapy programs and support each other in our day to day practice, together we could bring the mind, body and spiritual benefits of yoga therapy to more and more people.

Thank you.

Goals of the network:

To develop and recommend standards of practice where yoga therapy practices are unified, yet where practitioners retain their unique presentation styles

If you want to be a part of a network of yoga therapists in SW Ontario, please complete and return form.

Name: _____ City: _____ Email: _____

Where did you receive your yoga therapist training?

How long have you been practicing yoga therapy/

Your therapists practice has consisted of working with clients in which areas? Check as many as apply.

- disease prevention
- working with medical profession to provide yoga therapy as adjunct to medical treatment
- pain management
- chronic illness
- cancer
- other _____

Please list your particular areas of expertise or interest in which to bring yoga therapy education, resources and services. (for example: bullying in schools, workplace health, hospital in- and outpatient care, community health, mental health, CCACs, Family Health Care Teams, etc.)

Does it interest you to become a part of a committee to develop resources that educate different segments in the community on the benefits of yoga therapy?

What are the age groups of the people you have served as a therapist: (seniors, youth, etc)

What has been your biggest challenge as a yoga therapist?

What is your biggest reward?

Are any of your treatments covered by insurance or workplace health plans?

What areas interest you?

- research (please describe the type of research you've been involved with, publications, etc
- giving presentations
- developing educational materials

Are you interested in serving on the executive of this network?

How much time per week would you see yourself devoting to the network/

How many times per year would be reasonable for the executive to meet/

Would you attend an annual workshop? What topics would you like to see presented?

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