

Lessons from Survivors: The Role of Recreation Therapy in Facilitating Spirituality and  
Well-Being

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Abstract

Spirituality is not consistently integrated into healthcare even though it is thought to play a vital role in health and recovery from illness (Gall, et al, 2005; Martsof & Mickley, 1998; McCain, 2005). Recreational therapists are in a position to capitalize on the free and expressive nature of leisure-based interventions to facilitate spiritual growth and development that may aid in recovery from illness. This article will explore the impact that an integrated exercise and recreational therapy program had on the spirituality of women recovering from breast cancer treatment. The theoretical framework used to guide service delivery and the lessons learned from these breast cancer survivors are presented along with implications for practice.

Keywords: Breast cancer, exercise, leisure and well-being model, recreation therapy, spirituality, well-being.

### Lessons from Breast Cancer Survivors: The Role of Recreation Therapy in Facilitating Spirituality and Well-being

"Whereas a spiritual healer might see the sick person as a blend of body, soul, and spirit, we separate the body out and treat it as though illness had nothing to do with our emotions and the ways we understand our experiences." (Moore, 2006, p. 1)

In modern health care, religion and spiritual practice are generally separated from all forms of therapy (Moore, 1992). Yet many of the emotional ailments we commonly see in clients (i.e. depression, anxiety, meaninglessness, delusions, and yearning for personal meaning) necessitate that we treat the mind, body, and soul as inseparable. Additionally, spirituality may help facilitate treatment outcomes by providing individuals with a higher degree of optimism and hope for improved health. Connecting to others and to a higher power plays a pivotal role in one's health and psychosocial well-being (McCain, 2005). This article explores the role that recreation therapy (RT) may have in creating opportunities to develop spirituality and well-being. We will articulate how RT conducted within the theoretical framework of the Leisure and Well-Being Model (Carruthers & Hood, 2004; Hood & Carruthers, in press) impacts psychosocial well-being by creating opportunities for clients to have spiritual experiences. Our conceptual paper will also look at the application of the Leisure and Well-Being Model to a combined exercise and RT program for women with breast cancer. Reflections regarding how this theoretical framework contributes to various attributes of spirituality are provided along with a description of how various RT interventions may set the stage for spiritual experiences.

### Spirituality and Health

Spirituality is generally defined as a condition of the soul that reflects a deep connection to the world and a strong sense of value for self and others (Burke, Miranti, & Chauvin, 2005). Spirituality concerns itself with several key aspects of life including: meaning (finding significance in life, making sense, deriving purpose); values (beliefs, standards and ethics that one cherishes); transcendence (experience, awareness, and appreciation of a "transcendent dimension" to life beyond self); connecting (connection with self, others, God/Spirit/Divine, and nature); and becoming (unfolding of life that demands reflection and experience; including a sense of who one is and how one knows) (Martsof & Mickley, 1998). These key elements of life can be challenged with the experience of illness or disability therefore creating more stress in their lives.

Individuals who are experiencing illness and disability need to receive interventions that reduce stress (Koopman et. al., 2002). Rather than treating stress of the mind and body strictly through medicine, it is essential to offer experiential approaches that embody the potential for deeper reflection and transcendent meaning. One area of life that offers meaning and opportunities for transcendence is leisure.

#### *Theoretical Connections between Recreation Therapy and Spirituality*

Leisure can be defined as a spiritual experience that has the potential to create a spiritual awakening, a metanoia (Greek word for "turning around"). That awakening can be experienced as a need to find life balance so that priorities reflect values. Thus, leisure is a remediation for physical, emotional, and social issues and an opportunity for self-examination and a reordering of priorities. Because leisure touches the places within our hearts that are linked to the metaphysical, it can help create a larger context in which the experience of illness is balanced

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with experiences of joy, love, and appreciation. The profession that most often concerns itself with experiences of leisure for individuals who are experiencing illness is RT.

Although several RT practice models exist, the most recent draws upon positive psychology theory to explain the relationship between RT and well-being. The Leisure and Well-Being Model (Carruthers & Hood, 2004; Hood & Carruthers, in press) focuses on individuals' problems, deficits and negative experiences, as well as their strengths, capacities, and positive experiences. When considered simultaneously, each of these factors provide a description of clients' resilience, well-being and quality of life. This model is based on the theory that RT positively impacts one's psychological well-being by enhancing an individual's leisure experiences and developing their resources and capacity to engage in life activities. The five guiding principles for therapeutic interventions are savoring leisure, authentic leisure, leisure gratification, mindful leisure, and virtuous leisure. Resource development emanates from identified needs in five areas of focus: psychological, social, cognitive, physical, and environmental.

Although not implicitly identified as a major component of the Leisure and Well-Being theoretical framework, spirituality is implied in the model and appears to have an integral role in accomplishing the desired outcomes of overall health and well-being. Spirituality is ultimately concerned with the highest level of human evolution commonly identified as self-awareness. To evolve as an individual one must engage in reflective processes that foster choice, perceived freedom, and the ability to define meaning for oneself. These are the very attributes of leisure (Edginton, Hanson, Edginton & Hudson, 2006; Parse, 1992). If healthcare professionals are to assist in the spiritual growth and development of clients they must help patients and their significant others uncover meaning and purpose, define what health is to them, and help them

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make plans for changing lifestyle behaviors to achieve and sustain high levels of health and well-being (Martsolf & Mickle, 1998).

Various interventions may be used during RT to facilitate spirituality and well-being. The combination of RT and exercise may help to offset the effects of lethargy and a listless spirit. Interventions that teach mindfulness and relaxation, such as meditation, yoga, and Tai Chi, may be used to create inner peace and calm (Allsop & Dattilo, 2000; Jones, Dean, & Scudds, 2005; Lee, Pittler, & Ernst, 2007; Mustian, Katula, & Zhao, 2006). Offering time for personal reflection and journaling may allow individuals an opportunity to explore their values and put the experience of illness into some larger context of meaning (Lerman, et al., 1990). Expressive arts can allow individuals to experience self-expression, examine emotions and process meaning during treatment and recovery (Devine & Dattilo, 2000). Fostering social support during recreational activities such as dancing, a ropes course, or going on outings can create positive emotions and facilitate bonding with family and friends (Carruthers & Hood, 2004; Groff & Dattilo, 2000). Finally, HeartMath and biofeedback can be used to create a physiological state of heart rate coherence that is essential for inner harmony and opens an avenue for deep and meaningful connections with others (Childre & McCraty, 2001). We will present an example of a program that utilizes exercise and RT within the Leisure and Well-Being model to influence the physical and psychosocial well-being of women who have recently completed chemotherapy, radiation, and/or surgery for breast cancer. Consideration will then be given for how the RT component of this model may create opportunities for patients to engage in spiritual practice.

### *Lessons from Breast Cancer Survivors*

"To tell the truth I was a little skeptical about the recreation therapy part of the program in that I wondered why one would need such a program." (Get REAL & HEEL program participant)

The quote above reflects what we believe many patients feel upon hearing that they will receive recreation therapy. Common responses to news that one will be receiving RT services include, "What is recreation therapy?" and "What do we do in recreation therapy?" Furthermore, clients question the necessity of RT services and often resist interactions, "I don't have time to play," "I don't think I need help with that," "I have lots of interests," and "How will that help me?" are frequent responses to the news that one is to receive services. The thought of including a spiritual component to this already misunderstood profession seems risky and potentially detrimental. Documentation from recreation therapy services delivered during the Get REAL & HEEL (Get Recreation, Get Exercise, Get Active, Get Living) breast cancer program provides some evidence, however, that RT can aid in spiritual development and induce psychological healing for some clients. After a brief introduction of the program, consideration will be given to RT services that can impact elements of spirituality, including: meaning (finding significance in life, making sense, deriving purpose); values (beliefs, standards and ethics that one cherishes); transcendence (experience, awareness, and appreciation of a "transcendent dimension" to life beyond self); connecting (connection with self, others, God/Spirit/Divine, and nature); and becoming (unfolding of life that demands reflection and experience; including a sense of who one is and how one knows) (Martsof & Mickley, 1998).

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### *The Get REAL & HEEL Breast Cancer Program*

The Get REAL & HEEL breast cancer program is an individualized prescriptive exercise and recreation therapy program for women who have recently completed breast cancer treatment (e.g. chemotherapy, radiation, and/or surgery). The program received grant support from the NC Triangle Affiliate of the Susan G. Komen Foundation to allow 42 women who are within 6 months of post treatment to work with a personal trainer and recreation therapist. The goal of the program is to improve overall quality of life and to increase incidences of survivorship by providing participants with opportunities to strengthen their body and mind. The program was initiated as a pilot study, to evaluate the feasibility of exercise and RT in these patients, and to evaluate changes in physical and psychological outcomes over time.

All sessions are conducted at a university facility that exclusively serves Get REAL & HEEL participants. Participants are eligible for the program if they have a confirmed diagnosis of Stage I, II, or III invasive breast cancer, are within 6 months of completion of all planned surgery, radiation therapy, and chemotherapy; range in age from 30 to 75 years of age. They may be receiving adjuvant hormonal therapy or adjuvant trastuzumab. Given the potential risks involved in participation in physical activity, patients who have acute or chronic cardiovascular, respiratory, renal, or immune deficiency disease, or bone, joint, or muscular abnormalities are not eligible to participate. To recruit participants brochures are distributed to all local hospitals and oncology offices, as well as breast cancer resource services in a 13-county region in the central portion of North Carolina. If individuals express an interest in participating in the study, they contact the program coordinator or co-directors, and informed consent for participation in the study is obtained. The Institutional Review Board approved this study.

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After consenting to be included in the study, participants complete a battery of psychological and physiological assessments prior to the start of the intervention. The psychological assessments include: a) Fact-B Quality of Life scale, b) Piper Fatigue scale, c) Center for Epidemiologic Studies Depression Scale (CES-D), d) Stanford Emotional Self-Efficacy Scale - Cancer, and e) Leisure Interest Measure. The physiological assessments include: a) Resting Vitals (Resting heart rate (RHR), blood pressure (BP), and pulse oximetry for the determination of hemoglobin saturation); b) height and weight; c) body composition and anthropometric measures; d) cardio-respiratory endurance; e) muscular strength; f) muscular endurance; g) flexibility; h) shoulder function; and i) static and dynamic balance tests.

Participants enrolled in Get REAL & HEEL receive 6 months of exercise and recreation therapy 3 times per week for approximately 75 minutes. The exercise component of Get REAL & HEEL includes individualized prescriptive exercise including cardiovascular activities on the treadmill, cross-trainer, stepper, and cycle ergometer, resistance exercises on exercise machines, dumbbells, rubber bands, and fit balls, and a variety of flexibility exercises designed to assist patients in regaining upper body range of motion usually compromised by surgery to the chest and shoulder. The recreation therapy component includes individual and group activities designed to accomplish the goals and objectives identified in the patient's individualized treatment plan. Individual recreational interventions include: cognitive and behavioral interventions for stress management, relaxation training, creative writing, expressive arts, leisure counseling, journaling, biofeedback, and HeartMath. Group recreational interventions include dance, expressive arts, group outings, and a ropes course.

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### *Connections with Spirituality*

At the completion of each recreation therapy session, the therapist documents on the services received and treatment outcomes. The objective measurements of treatment outcomes, along with the subjective expressions of these women, provide some indication that recreation therapy conducted within this theoretical model may influence dimensions of spirituality. The data used to support this assertion was not a result of a direct question regarding this relationship. Rather, the women provided this unsolicited insight as a natural result of recreation therapy interventions when issues surrounding spirituality arose.

*Lessons on finding meaning.* Finding meaning in one's life necessitates that individuals identify what makes life significant, what they derive purpose from, and how they make sense of the world. Many of these women described how leisure activities were a key venue for providing meaning in life. Journaling was a particularly effective intervention in allowing women to discover what brought meaning to their lives. One woman used journaling to reflect on what brought her joy, and she determined that playing the piano and spending time with her family were the two greatest sources of joy in her life. She went on to reflect on the necessity of taking 5-10 minutes each day to engage in the activities that brought her joy. The patient stated, "You know it is really easy to get too busy and not take time to stop, but I always feel so much better when I leave here. I do not care if it is the exercise or the recreation therapy - I just need to make this a priority." Another woman thought that "depression would be a big issue for me if I didn't have this program to go to. I would be left wondering what is the next step."

The women found opportunities to develop a sense of meaning during various interventions. One woman was introduced to African music during the Journey to the Wild Divine biofeedback program. She stated that while listening to the music she reflected upon, "my

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family and loving, and being loved, and all the miracles.” Another woman commented while scrap booking that “I really love this time because it kind of forces me to slow down.” She went on to state that finding time for self-expression was important and was allowing her to contemplate what her new life was going to look like. She went on to discuss with her therapist how making healthy decisions and making time for herself was an important step in defining her new self.

Developing this new life and new sense of meaning appeared to come with a few struggles. Many of the women expressed how they felt guilty if they took too much time for themselves. As one woman summarized, “I am trying to not feel guilty when I take time for myself, that’s my biggest issue, guilt. I like doing this {the Get REAL & HEEL program} because I can have time and not feel quite as guilty.” One woman was able to shed insight as to why the Get REAL & HEEL program created a more guilt-free environment compared to doing leisure-based activities at home. She stated, “I treat this program like any other doctor appointment. I have to make it. I can't let other things get in the way since we are talking about my health.”

*Lessons on creating values.* When considering what one values we must all engage in a reflective process regarding what we cherish, what beliefs we have, and by what ethical standards we will choose to live. Creating values and living life according to those values requires mindful attention to how we live, how we respond to various situations, and perhaps most importantly, how we feel about the life we live. Many of the women in the program described a situation where they were in process of creating new life values. As they often stated during treatment sessions, they were in the process of “finding a new normal.” While scrap booking one woman revealed how she had begun to identify what her “new normal” was going to be. She

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questioned, “What should I take from my old life and put into my new life?” She went on to reflect on how she wants to lead an authentic life that is leading up to God’s expectations of her. She stated that she would like to work with people and help them to feel good. “I just know since being in this program that there is a plan for me and I want to figure out how I can live up to that plan.” This comment provided the therapist with the opportunity to discuss with the participant that she could set time aside for herself and value opportunities to be creative, reflective, and expressive.

Another woman reflected on her life values while journaling. Reflecting on what was important to her, she spoke of the need to accomplish tasks around the house and take advantage of the leisure time that she has and not feel guilty about it. When being de-briefing about the journaling she had done, she stated that the program had “taught me that I need to take a moment every now and then and put things on pause.” The majority of the woman reiterated the need to put things on pause at some point during treatment, indicating that they were in the process of reflecting upon their values.

*Lessons on transcending experiences.* Transcendence requires a deep appreciation and awareness of the self in relation to the world. Creating opportunities for transcendence requires an array of experiences and opportunities to think about and reflect upon life beyond oneself. Many of the women in the program were naturally in the process of undergoing a life transition that was brought on by the experience of having cancer. One of the interventions that appeared to provide a powerful outlet for engaging in the reflective process of understanding one's self in relation to the larger world were the biofeedback programs. One woman stated, "Through biofeedback I can control how I manage stress in my life and how I react to life's challenges. This has given me a sense of power and control over the negative stresses in my life and has

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made me feel that I can help the cancer not come back." Another woman shared how being guided through a visualization of living in a rain forest resulted in her increased awareness of having authentic experiences where she felt true love and appreciation for others and the environment.

Another intervention that helped to facilitate feelings of transcendence was the use of a challenge course. One woman brought away a different sense of feeling at ease with herself and not feeling pressure to conform to how she thought others wanted her to be. "What I took away from it was, it was OK to go, I am good with what I did, and walk away with that. And not say oh I have to do this because of everybody else and be real worried about that so much. It was good to just be OK with yourself."

The challenge course also facilitated some group lessons. Based on comments that participants made during each of the two-day challenge course events, this group of woman helped each other accomplish a sense of transcendence. One participant summarized the groups' sentiments:

"I guess I really appreciated being with a group of people who have been through the same kinds of things that I have and just recognizing that we are all participants in life again. You know you feel like you dropped out of life when you are in treatment and you just want to find a way to recover and get back some kind of normalcy. Being with other people who have gone through treatment was very important to me. Doing the kind of challenges that we came up against here we were successful at different levels, but you know it is a journey in life. It is not the destination but it is the working to get there and the working to get there together."

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*Lessons on connecting.* One essential component of spirituality is developing connections with oneself, others, God/Spirit/Divine, and nature. One of the participants spoke directly about her increased awareness of her connections with others and with God because of the RT interventions. She had attended a Young Survivors Conference recently where she heard a physician speak about the importance of exercise and being spiritual. She commented how the physician “put spirituality in really easy terms for people to accept. It is really important to have outlets to feel that connection.” She went on to comment that the Get REAL & HEEL program had affected her spirituality. She stated that the program in general had helped her gain perspective but that the biofeedback and using the HeartMath technique to maintain heart rate coherence was particularly helpful. "I know I always felt good if I was at church or lying on a blanket looking up at the stars but now I know more about why that is really so important to me and my quality of life.”

Other program participants also talked about how inducing psychophysiological coherence during biofeedback events related to spirituality in that it provided them with an internal state that allowed them to increase their awareness of self and connections with others. As one program participant stated, "Because of what I am learning through biofeedback, I feel more in control of my emotions and inner-peace. Just being around such a positive program with so much enthusiasm has helped me feel better about myself, my healing process, and my connection with others."

Not only were the one-on-one sessions important in providing opportunities to feel connected, but the group activities were instrumental as well. During one scrap booking and drawing session, a participant commented how it was "easier to go through this {having cancer} knowing that you are not out there alone." Part of the effectiveness of this program may stem

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from the fact that it is not a typical support group provided in the community. One of the participants stated that she "avoided support groups because it just didn't interest me." She noted during a de-briefing on the challenge course that it was "so great be with other people in the same boat." However, it was critical to her that she be around,

"people in the same boat who had made a decision that they wanted to do something about one particular aspect of having cancer. Sort of that proactive way and say, okay I want to do everything I possibly can to feel good. So this is really an awesome sub-set of cancer survivors."

Another woman had a similar reaction to the challenge course experience. She stated, "The camaraderie was just real special. Even our trainers created a relaxed atmosphere. It was nice to be with people who are really all in the same boat because we all had that same feeling when we finished treatment. We all had short hair in the beginning and I had my hat on and I thought, if everyone else can go without a hat on so can I."

The changes the women experienced during the program also impacted other aspects of life, such as one's families and co-workers. One woman clearly described:

"This program has changed every aspect of my life. I know that I have a calming effect on my boss and family. When I got in the car to go home on Tuesday after such a crazy day I was able to let it all go. But I really love how it is impacting my relationships with my boys. Now I hug them when they get all out of sorts and tell them it will be okay instead of putting more pressure on them."

*Lessons on becoming.* The experience of having breast cancer was, for many of these women, a critical part of becoming. The experience demanded that their life unfold in an

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unexpected way. It was up to them and their families to reflect upon the experience and develop an appreciation for who they are and who they are to become.

Participants knew that it was necessary to change their life. After expressing her awareness of the fact that she knew she was going to have to change her life, one woman exclaimed, "I am ready. I just know I have some work to do. I feel like I want to cry. I just don't know if I can do that here {during recreation therapy}." In creating a safe and trusting environment that was conducive to free expression, the therapist assured her that it was okay to cry, and on numerous occasions, both the client and therapist have cried. Those tears seem to be a natural expression of the emotion (joy, anxiousness, excitement, and fear) associated with becoming someone new.

Many women coined the term "creating a new normal" to define the process of becoming. They expressed considerable trepidation over the thought of moving forward and questioned how to accomplish this act. They spoke of how having opportunities to be creative during recreation therapy was an important step in beginning a new healthy life. The way that women used leisure as a way to become someone or something new varied. One client's cancer journey evoked a strong passion to share her experiences with her family, especially her children. She elected to write short stories so that she could pass on the lessons to her children. She stated, "I want my kids to know what life was like for their aunts, uncles and me growing up. I want them to see how we had fun, but also learned lessons. I want to bridge my history with a moral lesson." In this respect, she was essentially using the expressive art form of writing short stories to become a new person and to help her children evolve as individuals.

Several other women spoke about how the challenge course offered them opportunities to identify who they were or were not. One woman stated how she "loved the challenges. I found

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out I could do it and that gave me a good feeling. I guess what I took away from the whole program was that I really can do anything I want." Another woman reflected on how, "I had never done anything like that before. I'm really not a big outdoors physical person and so it was awesome to learn that I could do something I just never envisioned myself doing. I learned that I must have this fear of heights and so I am up there going, Aghhh. I wasn't expecting this."

Similarly, another woman spoke of how the challenge course offered her feedback regarding her current physical abilities and motivated her to change:

"I was very, very frustrated over the ropes course because probably more than anyone I was really looking forward to it. I just thought it was going to be the neatest thing. The fact that I was not able to even get up on the ropes to try made me realize that I need stronger legs. So I have been working really hard over the past two months to try and increase the strength in my legs."

### *Spirituality is Not for Everyone*

Some of the GRH participants spoke of their difficulty in separating spirituality and religion. Due to their previous negative experiences with religion, some participants did not want the GRH program to address issues surrounding spirituality and religion. During one recreation therapy session, using HeartMath in combination with the Journey to the Wild Divine biofeedback program, a participant was offered the opportunity to consider if a spiritual state might help her achieve the relaxed physiological state needed to accomplish the biofeedback event. She commented, "If you want me to drop out of heart rate coherence, have me think about spirituality and religion." She went on to explain that religion had some negative connotation for her given previous family experiences that were still playing out in her adult relationship with her mother. She described how spirituality and religion were difficult concepts for her and had

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caused significant tension between her and her mother. She stated that it was difficult to make a transition between thinking about accomplishing a biofeedback event from a spiritual standpoint when the previous physiological approach to accomplishing events had been to develop the skills and awareness needed to regulate her heart rate coherence, heart rate, and skin conductance level. She commented how "this whole time we have been talking about heart rate, skin conductance levels and breathing. To turn it into something spiritual is hard." These comments demonstrate that participants had diverse experiences regarding the value and significance of the spiritual component of this program that warrant further evaluation.

### *Discussion*

The experiences of these women enrolled in the Get REAL & HEEL breast cancer program provides considerable preliminary support for the notion that recreational therapy interventions can facilitate spiritual growth and well-being after initial therapy for breast cancer. It appears that the principles espoused in the Leisure and Well-Being model are particularly well-suited to facilitating this spiritual connection because of the focus on gratitude, appreciation, authenticity, mindfulness, and virtuosity. A great deal of work remains before we can say with confidence that specific RT interventions can have a specified outcome or that we can determine the extent to which RT should focus on spirituality.

If it is true that recreation therapy can be a mechanism to facilitate spiritual growth and development that leads to enhanced health in individuals battling cancer, then the ability to effectively quantify and document the outcomes of services will be crucial. As several other health care professions have noted, if professionals are to assist in the spiritual growth and development of clients they must clearly be able to articulate the anticipated outcomes of interventions and how these changes are related to high levels of health and well-being (Martsolf

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& Mickle, 1998). Recreation therapists would have to be able to substantiate for the medical community that we are capable of providing medically necessary interventions that result in specific functional improvements. This will undoubtedly be a difficult task. Reliable and valid assessments would need to be developed and the competencies of practitioners assured.

Developing reliable and valid assessments is a challenge given the various ways that individuals define and express their spirituality. As we witnessed in our program some individuals may have concerns with incorporating spirituality into their medical treatment and may desire to draw clear distinctions between health care and spirituality. For others seeking spiritual guidance as a part of their medical recovery however, they would want to be assured that the professionals providing care are qualified. A dilemma exists with that concept in that recreation therapists are not typically trained to intervene within this domain. Certainly, the issues surrounding how to train and assure professional integrity would have to be addressed if RT desires to deliver interventions within the spiritual domain.

One of the ways that the professional competency of RT's can be easily assured and that spiritual goals may be addressed is through various forms of biofeedback. One of the most interesting and powerful interventions related to spirituality among the Get REAL & HEEL participants was the use of biofeedback programs such as the Journey to the Wild Divine, Healing Rhythms, and HeartMath. There is considerable scientific evidence to suggest that learning to be aware of and to manage emotions may empower individuals to improve their health and quality of life by giving them skills to regulate their psychophysiological state (Childre & McRaty, 2002). Becoming aware of one's emotional state and being able to stay focused on positive emotions such as love and appreciation is indicative of an internal state of being that can also foster the development of life values (Childre & McRaty, 2002).

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Due to recent advances in medical research, we have a better understanding of the major role that the heart plays in influencing psychophysiological function. The heart is now being recognized as "a sensory organ and sophisticated information encoding and processing center, with an extensive intrinsic nervous system capable of making functional decisions independent of the brain" (Childre & McCraty, 2001, p. 14). In an attempt to develop the capacity to engage in mindful leisure and experience leisure appreciation (Hood & Carruthers, 2006), individuals in the GRH program received biofeedback and HeartMath training. Biofeedback is a training technique that allows individuals to become aware of and to regulate personal health using signals from their bodies. The body signals typically used during biofeedback include brain activity, blood pressure, muscle tension, heart rate, and skin conductance levels (The Association for Applied Psychophysiology and Biofeedback, 2007). Therapists use sensors that are placed on the head or the hand to provide visual and/or audible "feedback" about what is occurring in their body. Through continued practice, individuals use this training to regulate their stress level and to lead healthier lives.

HeartMath© is a personal stress relief technique that trains individuals to be aware of and regulate their Heart Rate Coherence (HRC) by inducing a positive emotional state. Research has demonstrated that individuals who are able to sustain a positive emotional response to various stressful situations benefit from improved physiological, psychological and social functioning (McCraty, 2003; McCraty & Childre, 2003; McCraty, Atkinson, Tomasino & Bradley, 2006). Achieving increased psychophysiological performance can be measured through distinct patterns of heart rate activity called HRC. Heart rate coherence represents a high degree of order, harmony and stability in mental and emotional processes (McCraty, Atkinson, Tomasino & Bradley, 2006). One physiological outcome associated with the presence of sustained levels of

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coherence is DHEA/cortisol ratio. Positive emotions are related to increased DHEA levels and decreased cortisol levels. Improved DHEA/Cortisol ratios are linked to improved physiological functioning (reduced stress reactivity and improved homeostasis) which is a key factor in the maintenance of good health (McCraty, 2003; McCraty & Childre, 2003; McCraty, Atkinson, Tomasino & Bradley, 2006).

### *Conclusions*

Moore (2006) states, "Spirituality gives the soul its vision and the soul gives our lives emotional, intellectual, and even physical vitality. If medicine would address us as whole persons, having important relationships, living, and working in a particular place, with our dreams and fears and concerns, we might be able to heal from the inside out." (p.1). The "Get REAL & HEEL" (Get Recreation – Get Exercise – Get Active – Get Living) breast cancer program, framed under the Leisure and Well-Being model, may be able to improve overall quality of life and increase the length of survivorship by providing patients with opportunities to strengthen their body and mind during the cancer experience. The participants in this program were treated as individuals who each had unique goals, dreams, and understanding of spirituality. We may never be able to develop a protocol whereby individual receive a specific intervention and are assured of a desired spiritual outcome. What we have witnessed is that this integrated approach toward meeting the physical and psychosocial needs of breast cancer patients allowed individuals to express themselves spiritually, giving them an opportunity to fully heal from the inside out.

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