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Terry L. Mitchell , Christine V. Yakiwchuk , Kara L. Griffin , Ross E. Gray & Margaret I. Fitch

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Survivor Dragon Boating: A Vehicle to Reclaim and Enhance Life After Treatment for Breast Cancer

TERRY L. MITCHELL

Department of Psychology, Wilfrid Laurier University, Waterloo, Ontario, Canada

CHRISTINE V. YAKIWCHUK

Department of Psychology, Wilfrid Laurier University, Waterloo, Ontario, Canada

KARA L. GRIFFIN

Ontario Breast Cancer Community Research Initiative, Ontario, Canada

ROSS E. GRAY and MARGARET I. FITCH

*Psychosocial and Behavioural Research Unit, Toronto Sunnybrook Regional Cancer Center,
Toronto, Canada*

The authors investigated the psychosocial impact of dragon boat participation on women who have been treated for breast cancer. Open-ended qualitative interviews were completed by 10 new members recruited from two breast cancer survivor dragon boat teams. Our findings indicate that the women's experience of survivor dragon boating surpassed their expectations and offered them hope and increased strength and the ability to regain control of their lives. Key themes emerging from the in-depth interviews that encapsulate the experiences of women in their first season of dragon boating follow: awakening of the self, common bond, regaining control, being uplifted, and transcending the fear of death. The interview data support the emerging hypothesis that dragon boating is a vehicle for improving women's wellness and post-treatment quality of life.

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Address correspondence to Dr. Terry Mitchell, Department of Psychology, Wilfrid Laurier University, Waterloo, Ontario, N2L 3C5, Canada. E-mail: tmitchell@wlu.ca

Earlier detection and more effective cancer technologies are resulting in higher survival rates for women diagnosed with breast cancer. Increasingly, women diagnosed with breast cancer are living many years beyond treatment (Chiarelli, Theis, Holowaty, Moravan, & Nishri, 2000; Deimling, Kahana, Bowman, & Schaefer, 2002). Breast cancer diagnosis and treatment, however, has an enduring impact on women well beyond treatment. Many women feel a lack of power and control over their bodies and life in general in relation to the diagnosis. The transition from treatment to survivorship does not definitively signify the end of cancer, nor does it necessarily relieve women of the physical, psychological, and social effects of diagnosis and treatment (Deimling et al., 2002). Treatment termination, itself, involves separation from cancer experts and can be frightening for women with ongoing concerns about recurrence. Women can feel abandoned by the oncology profession when intensive health professional relationships end. For example, when hormone therapy ends after 5 years of treatment, some women can feel further undefended from cancer (Sinding & Gray, 2003). In a study with long-term survivors, women revealed the physical and emotional chronicity of the cancer journey, referring to a “wellspring of dread” and the fear of recurrence as an “integral part of survivorship” (Sinding & Gray, 2003, p. 7).

POST-TREATMENT OPTIONS FOR WOMEN TREATED FOR BREAST CANCER

There is huge variability within North America in the provision of professional supportive care services for people with cancer (Gray et al., 2000). Where services do exist, patients in active treatment tend to have priority access over long-term survivors. Peer-led breast cancer support groups arose in the early 1990s in part to help address the gap in supportive care services for women, especially after treatment ends. While these groups bring many potential benefits to participants (Gray, Fitch, Davis, & Phillips, 1997), there are also limitations in what can be offered, and the majority of women choose not to attend these talk-based support groups (Gray & Fitch, 2001).

While exercise programs for breast cancer survivors are not widely available, studies have demonstrated that exercise improves women's functional status after breast cancer (Courneya, Blanchard, & Laing, 2001) as well as quality of life (Young-McCaughan & Sexton, 1991). Women have reported better physical and mental health, and the ability to handle stress and to feel more in control of their lives while exercising (Segar et al., 1998). Women who have had axillary lymph nodes removed for the management of breast cancer, however, traditionally have been told to avoid vigorous, repetitive upper body exercise and excessive weight bearing on

the side of their surgery. These prohibitions limit breast cancer survivors' participation in many activities that contribute to increased quality of life or serve as protective strategies against increased risk for heart disease (Harris & Niesen-Vertommen, 2000).

Increased attention needs to be given to understanding and responding to women's end-of-treatment transition from the intensive/intrusive context of cancer treatment to the individual challenges of post-treatment survivorship. The authors of this article provide insight into why an increasing number of women who have been treated for breast cancer are attracted to survivor dragon boating. The authors discuss the psychosocial benefits of dragon boating as described by women in their first season of survivor dragon boating and the potential for dragon boating to improve women's post-treatment quality of life.

The pre- and post-design enables the authors to tell a story of women's pre-season anticipation, expectations, and needs as well as their experiences of survivor dragon boating. The story also illustrates the positive psychosocial impact that just one season of dragon boating had on women of various ages who were diagnosed with breast cancer between 1 and 4 years ago.

SURVIVOR DRAGON BOATING

The dynamic team sport of dragon boating arises out of an ancient Chinese sport that dates back more than 2,000 years. Dragon boating involves 22 individuals working synchronistically and vigorously as a team to advance a 12–18 metre boat, in intense races of 500 to 650 metres, of approximately 2.5 to 3.5 minutes duration. The phenomenon of breast cancer survivor dragon boating emerged in 1996 when a sports medicine physician at the University of British Columbia conducted a study with a group of women who had been treated for breast cancer. The women were trained in a team sport that requires strenuous upper body activity and were individually monitored for lymphedema (a painful and chronic swelling of the arm and chest area); (McKenzie, 1998). The finding that participants did not increase their risk of lymphedema challenged clinical guidelines that women with axillary dissection were to refrain from engaging in vigorous, repetitive, or excessive upper body exercise (Harris & Niesen-Vertommen, 2000).

Dragon boat participation by women who have been treated for breast cancer (and recently a few men) is a growing phenomenon across Canada (Culos-Reed, Shields, & Brawley, 2005). Survivor dragon boating has now spread internationally, with 21 teams in Australia, 16 in the United States, 4 in New Zealand, 2 in Singapore, and 1 in China, England, Malaysia, and Poland, joining the approximately 50 Canadian teams. While research has been conducted with dragon boat teams on the physiological implications of strenuous upper arm exercise, primarily the risk of lymphedema (Harris

& Niesen-Vertommen, 2000; McKenzie, 1998; McKenzie & Kalda, 2003), and theoretical models for the promotion of exercise (Courneya, Blanchard, & Laing, 2001), little is known about the psychosocial impact of dragon boating among women who have been treated for breast cancer. This study builds upon a pilot study on the psychosocial impact of survivor dragon boating (Mitchell & Nielsen, 2002). By studying new members' expectations and experiences of short-term membership on a dragon boat team, the present research contributes to further understanding of the post-treatment needs of women with breast cancer and to the positive rehabilitative potential of survivor dragon boating. The themes highlighted in this article provide insight into the powerful relational nature of survivor dragon boating and the potential of this sport to reduce the burden of cancer by reducing cancer-related dread and anxiety and improving women's post-treatment quality of life.

METHODS

The study involved a constructivist qualitative approach (Denzin & Lincoln, 1994) utilizing a series of two in-depth interviews, one prior to the participant's first experience of dragon boating and one following their first season of training and racing. Ethics approval was obtained from the Research Ethics Board of Sunnybrook and Women's College Health Sciences Centre. The study is a community-based participatory research study guided by the values of knowledge sharing and creation in collaboration with research participants (Green et al., 1995). The first and third authors worked closely with a community advisory group (CAG) at all stages of the research. The CAG is comprised of five survivor dragon boaters from three Ontario communities. The new member study involved pre- and post-interviews with women who had been treated for breast cancer who were beginning their first season of dragon boating. The interviews were semistructured and open ended and lasted between approximately one hour and one and a half hours. The women also completed a demographic questionnaire.

The preseason interviews ($n = 10$) were conducted in the months of January and February before women started their first season of training in an indoor swimming pool. Eight of the interviews were conducted in person at either the individual's home or the interviewer's office, depending on the preference of the participant. Two of the interviews were conducted by phone due to logistics and by request of the participants. The post-season interviews ($n = 7$) were conducted from October through December after women had completed their first season of dragon boat racing. Five post-season interviews were conducted in the interviewer's office or participant's home; 2 were conducted over the phone. Of the 10 preseason interviewees, 3 participants (at least 2 of whom we believe did participate in dragon

boating) could not be located for post-season interviews despite multiple attempts to contact them. Although these 3 women were not able to be contacted for the post-season interviews, we have included their pre-season data on hopes and expectations of participating in survivor dragon boating.

The pre-season interview guide was designed to enable women to talk about their diagnosis and treatment and how this affected their health and life. The interviewer also asked women to describe how they found out about dragon boating as well as their motivation, fear, hopes, and expectations about this team sport. The post-season interview guide was designed to elicit participant reflections on their experience of dragon boating, whether it met their expectations, how they felt about themselves since dragon boating, as well as how their health and quality of life were impacted.

Recruitment and Sample

New member participants were recruited from two dragon boat teams in Ontario ($n = 10$). Due to the small sample size, especially of the postseason data, we are not identifying the particular dragon boat teams or communities. An email was sent to the dragon boat team to inform them of the new member study. New members contacted the researcher by email or phone to express their interest in participating in the study and were then sent a formal information letter and a consent form. Verbal consent was obtained over the phone before setting up an interview, and written consent was obtained before (as in the case of telephone interviews) or at the time of the interview. One participant was recruited with the assistance of a gatekeeper who is a member of the study's CAG. Interview participants, in appreciation of their participation, were given a small gift or honorarium or both. They also were offered an information brochure on breast cancer supports and services.

Participants were diagnosed between 1 and four years before being interviewed, and ranged in age from 35 to 70. Nine out of 10 participants were Canadian born, all were English speaking, and 1 woman was a nonnative English speaker. In terms of education, 1 participant had some high school, 2 had completed high school, 2 had some university or college, and 5 were university or college educated. The women had a household income range from below \$20,000/yr to \$80,000 plus per year; 8 participants were separated or divorced, 2 were married; 6 were working full time, 1 was seeking full-time employment, 1 was a part-time student, and 2 were retired; 8 of the participants were moderately to very physically active throughout their lives, including participating in nontraditional activities such as boxing, snowboarding, and triathlons. One participant was relatively

inactive throughout her life, and I had never been involved in any sports or physical activities outside of school.

Analysis

Individual interviews were taped and transcribed verbatim. The transcripts were read line by line and open coded by the first author in the margins to identify key words within the participants' own words. The transcripts then were entered into NVIVO, a software package designed to facilitate data management and qualitative analysis (Richards, 1999). A thematic analysis then was conducted by the first author to identify patterns in the data. Themes were identified that linked key concepts and patterns within and across the interviews. Emerging concepts and interpretations were discussed amongst authors and confirmed against the data. The post-season interview data were compared with the preseason data in terms of hopes, fears, expectations, and experience, as well as a description of health and wellness. The data were further reduced into analytic categories as presented.

FINDINGS

The preseason interview data provide a descriptive portrait of the new members, how they learned about dragon boating, and why they decided to participate in dragon boating. The post-season interviews describe women's experience of dragon boating and the psychological, physical, mental, and emotional impact of participation. The interview data are presented in three preseason themes, *the body betrayed*, *the allure of the dragon* and *dragon quest* that describe the cancer experience, post-treatment needs, and hopes and expectations of the new members. The five post-season themes, *awakening of the self*, *common bond*, *regaining control*, *uplifting*, and *transcendence*, describe the positive impact that the first season of survivor dragon boating had on this group of women with breast cancer.

Preseason Themes

THE BODY BETRAYED

And I think, for me, it's my way of taking
back control of my body that betrayed me.

Participant #4

Breast cancer often emerges from a seemingly healthy body, identified in a routine check-up, a quiet moment in the shower—and then a life is transformed. When a diagnosis of breast cancer is received, there is often

a sense of betrayal. “Why me? Why now? I was taking care of myself” Some of the research participants were very athletic, attending to their diet, and generally continuously health conscious. Conversely, some women described their lifestyles as very stressful and viewed their cancer diagnosis as a “wake-up call.” Regardless of their prior lifestyles, women were taken by surprise by the cancer diagnosis, which contributed to an ongoing sense of vulnerability. Women spoke about feeling attacked from within by the disease and from without by the treatments, often being preoccupied with worry:

Throughout my treatment and right even before I started the radiation and waiting for the surgeries again, my biggest feeling was absolute lack of power. I had lost control. I felt I was very much a part of a system. I had absolutely no control whatsoever, which is not a situation I would like to be in . . . There’s not an hour goes by that you don’t think about it. Okay. Fine, your treatment is over, but you’re still continually thinking about it.

Participant #1

THE ALLURE OF THE DRAGON

Women regardless of their age, life circumstance, lifestyle, degree of athleticism, or year of diagnosis were drawn to survivor dragon boating, expressing very few, if any, reservations or fears about participation. The women seemed confident that this sport would bring something important into their lives; they spoke of anticipated emotional, social, and physical benefits. The women we interviewed were seeking an activity that would energize them and build a sense of accomplishment and pride in a social environment of women who “knew” their experience. Survivor dragon boating was perceived as a positive activity with the potential to build inner strength and reduce fear of recurrence.

Positive. In a competition you just you paddle . . . You’re paddling your hardest. You think, when you’re about three quarters away through the race, “How . . . I can’t continue”, but you do . . . It’s really exhilarating. It’s really an exhilarating sport. I love it, love it.

Participant #9

Being faced with mortality awakened the women’s desire to engage in life as fully as possible and to live without restrictions or regrets. The novelty of engaging in the physically demanding, dynamic challenge of breast cancer dragon boating, with a group of women who share a common experience, was extremely attractive to these women. Women were drawn to something new, to something that exists in contrast to the experience of diagnosis and treatment, in contradiction to their fears of death and ruminations of

recurrence. The fact that dragon boating involves strenuous upper body exercise was in itself meaningful. This challenges previous beliefs about living with cancer, related physical limitations, and risk of lymphedema.

Meaningfully Active. I just thought it was fascinating. . . . I was looking at them and thought that for any sport to have been chosen by breast cancer survivors that this had to be ideal. The absolute ideal because it is so physical with the part of the body where most of us have had surgery. . . . I just thought it was a real statement. . . . I thought I just WANT to do that.

Participant #4

Women were attracted to the positive vision of women with breast cancer being active and joyful as a contradiction and antidote to the otherwise negative, fearful, and eroding experience of cancer diagnosis and treatment. Dragon boating was perceived as a dynamic team sport, a vehicle to help the women reclaim power and control in their lives. These new members were looking for hope and reassurance, a way of releasing or managing stress, and a way to move forward, in a community of women, beyond the shadow of cancer.

Shared experience. Being with women who have gone through what I've gone through in one way or another. To totally understand how I feel. . . . It's just the simple fact of actually looking someone in the eye and they can look at me and say nothing, but she knows exactly how I feel. That's what I am looking for.

Participant #6

The women we interviewed were not looking for a traditional breast cancer support group, though several were interested in building their social network. While a few of the women were already in support groups and looking for something to complement that experience, others expressed that they would never join a breast cancer support group. Nevertheless, the fact that all of the women were both literally and figuratively in the same boat was extremely important to the new members.

Hope. I think it gives you hope and it's sort of an adventure. It's something different that isn't tied to treatment or hospital or further tests to see if the damn disease has come back, which you seem to do so much of. . . and it's outside and you sort of picture blue skies and, you know, water, laughing, waves, and sort of going through the water.

Participant #10

There was an expressed anticipation, an excitement of engaging in dragon boating and meeting other women with breast cancer who were focusing on something positive and active. There was an attraction to the

outdoors, to the water, to adventure, to the beauty and novelty, and, for one woman, in particular, the symbolism of the dragon.

Power. Power, power to succeed, power to get over something (pause). Dragons are ferocious, and using that ferociousness to get through this.

Participant #2

Women were also attracted to the opportunity for perceived health gains, to build emotional and physical strength and stamina, and potentially to reduce the risk of recurrence through overall wellness. Participants expressed a desire for a more active lifestyle, one that would shift their focus away from thinking about breast cancer and the fear of recurrence.

DRAGON QUEST

The allure of the dragon can be encapsulated as an attraction to the positive, meaningfully active adventure with a group of women with a shared experience, working together to build hope among themselves and their community while reclaiming physical, mental, and emotional power. The women who were entering their first season of survivor dragon boating were motivated to join a team and had considerable expectations about what dragon boating might contribute to their healing and their lives:

Inner peace, some calmness and just kind of more I know there's a word for it, just to be calm, I guess. I'm hoping the interaction with these ladies and the physical activity and hopefully the rest of my life will get sorted out . . . I feel like I'm actually doing something to make myself healthier, mentally, emotionally, physically, and spiritually.

Participant #8

In fact, one woman was so anxious to begin dragon boating that she joined despite debilitating back pain and against her physiotherapist's advice. Survivor dragon boat teams were, however, hard to find unless the participant had personal contacts who were dragon boaters. Strikingly, none of the dragon boaters learned about the activity through their physicians, breast cancer agencies, or cancer treatment centres. When one individual specifically sought contact information about survivor dragon boating teams from these services, no information was available.

PRE- AND POST-SEASON COMPARISONS

It certainly met my expectations . . . I think it was as good, if not better.

Participant #1

Despite differences in levels of participation, all of the women felt included and benefited from their dragon boat experience. All of the women (7) we were able to interview after their first season intended to belong to a survivor dragon boat team in the following season. The interview data reveal that the women's experience of dragon boating met and exceeded their expectations. The positive evaluation is encapsulated in the following themes: *awakening of the self, common bond, regaining control, uplifting, and transcendence*, which are discussed further in the post-season data.

Postseason Themes

AWAKENING OF THE SELF

For me it was like a wake-up call... a kind of awakening... You actually stop to see what's around you. You actually look and you actually see what you're looking at. Many of us get caught up in the working world and the fast lane and go, go, go, and you miss so many things in life. You miss so much and then all of a sudden something happens and you give yourself the respect. You slow down and you actually see what you're looking at.

Participant #6

A central and key aspect of the cancer experience for some women appears to be a radical awakening of the self. Being confronted with one's mortality is a "wake-up call," and survivor dragon boating is a vehicle that enables women to realize their plan to focus on themselves more, to live each day more consciously, to take care of their health, and to be in the moment more fully. Post-season interviews revealed that the women were more focused on the positive, on reducing stress, and on being energized and engaged, and were committed to embracing life more fully. Participants began to achieve greater balance in their lives such that their needs and desires became an integral aspect of their day-to-day lives. Women spoke of appreciating themselves more and of being gentler/kinder to themselves, of letting go of "poor me," of building confidence, of coming "out of my shell," and of experiencing increased self-esteem. The dragon boat experience provides a context of positive reinforcement for the awakening of the self, for the attention and commitment to personal goals and the pursuit of health. Overall, the awakening of the self, within this context, enabled women to achieve their preseason goals of increased inner strength and calmness.

Just personally... it, it was everything that I thought it would be and more, and it has given me this calmness, this strength that I know that I can handle, live again... I think that's what we learned... to appreciate ourselves... There's just this quiet, maybe this is what the spirit of the dragon is, you know you're strong, you know you've got peace, you

know what you can do, and then you can take rough water, you can take things, because you know yourself that you've got the strength to meet anything.

Participant #2

COMMON BOND

Survivor dragon boaters are metaphorically and literally all in the same boat. Women found comfort and safety in joining other women in an environment and activity where the cancer experience is shared but largely unspoken. In the preseason interviews, many of the women mentioned that they wanted to build their social network, and, in particular, to meet with women outside of the context of a traditional support group who have breast cancer. The team context of the dragon boat experience provided an emotionally safe context for women to meet others who have been diagnosed and treated for breast cancer. The shared experience promoted a sense of comfort that fostered humour and hilarity and reports of an indomitable team spirit. While many of the new members said that they would never join a breast cancer support group, they nevertheless experienced an extraordinary degree of support in this alternative and physically active group of breast cancer survivors:

It was very interesting. You didn't ever have to explain anything because they've already been there, done that, type of thing. . . . You didn't have to explain anything from a medical or treatment perspective. They all knew it. It was very reassuring seeing all of these women from so many different walks of life, different age groups, everything else, and they were all carrying on and still continuing to live, you know, very full, active lives.

Participant #1

REGAINING CONTROL

Women described, in the preseason interviews, a feeling of being betrayed by their bodies and a profound sense of loss of control of their lives throughout diagnosis and treatment. Post-season interviews revealed the dynamic combination of survivors being with women who share similar experiences, while meeting a physical challenge that targets the upper body. This proactive community-based rehabilitative activity enabled participants to regain and experience a sense of control. The fact that this activity is a community-generated activity, and that it exists outside and separate from treatment regimes and hospital settings, is an additional aspect of regaining control in relation to living well with and past a cancer diagnosis:

I think the mind set. . . is so important, because that you have control over. You don't have control over what cancer is doing or not doing to your body. You don't have control over whether it's going to come back.

You don't have control over where it's going to come back, or if you're going to live through it. You have no control over that, but you do have control over how you deal with it.

Participant #4

Participants spoke of regaining control of their bodies through increased strength and mobility, as well as an inner strength of mind and emotions, the "exhilaration" that helps them deal with the overall impact of a breast cancer diagnosis.

When I am in a dragon boat, when I am dragon boating, I feel free, exhilarated, (pause) in control, powerful, all those good things.

Participant #10

UPLIFTING

The incredible focus and intense physical activity, combined with a balance of camaraderie and joyful play is described as uplifting. Survivor dragon boaters experience a dramatic shift from the aloneness of treatment to a community of women who are racing (winning), and being applauded and recognized as survivors and athletes. The strength, humour, and power of the survivor dragon boat culture is described as uplifting and empowering:

How do I explain it (sighing). Just going out in the water, the sun, you know, the reflection of the water, the smell. Everything just seemed to be so intensified and you just felt so uplifted. . . . To be charging down that fairway to the finish line and when you get to the end you're totally winded and all that, but, then, you feel all the women cheering. It just lifts you, you feel so up. You feel it as soon as you get into the boat. The adrenaline starts. You feel the excitement. It's just a wonderful feeling. I found what I was looking for. I got it ten times over.

Participant #6

There is much mention of the thrill and rush of racing, the endorphins, the adrenaline, the excitement, and the absolute push and collapse of competition. Participants spoke of the focus, the drive, and the exhilaration of being fully present in mind and body. Women described a shifting of priorities and perspectives and a letting go of worries and anxieties about recurrence, as well as aspects of home and work life, while in the boat. Pushing themselves to their limits physically and mentally, in training and race situations, is invigorating and brings women to an enviable state of feeling more alive:

Mentally, emotionally, physically, I just feel stronger. I feel stronger and more alive when I'm doing it (dragon boating)...it's the adrenaline or

something. It just makes your whole body feel good. I think everyone should do it, whether they've had breast cancer or not.

Participant #7

Transcendence. Survivor dragon boating is about pushing limits, about going beyond. Women spoke of being unwilling to be constrained by their diagnosis or treatments. Women are not trying to go back to a precancer reality. Rather, they are moving forward to try new things, to be in their bodies differently, for some more powerfully and more consciously. Survivor dragon boating does not appear to be about trying to achieve "normalcy." For many women there is the sense of becoming more than they were before, of becoming physically, mentally, and emotionally stronger. Survivor dragon boating enabled participants to shift cancer from the foreground to the background of their lives, to focus on life and living, joy and strength, rather than the fear of recurrence:

We're giving to each other in the group and we get back this magnificent high, camaraderie, just joyfulness, that I think has been lacking, you know, in, well, I know in my life for, you know, since all this stuff happened. After we do a real hard session, just sitting in the boat on the water, just the calmness, just the joy of knowing you've done something very strenuous and you're getting stronger physically. I am strong now and my mind is getting stronger and just being able to appreciate the play and the fun on the water.

Participant #4

DISCUSSION

Half to two thirds of women diagnosed with breast cancer handle it well psychologically (Baker, Marcellus, Zabora, Polland, & Jodrey, 1997; Spiegel, 1996) with some individuals reporting transformative or growth experiences through the cancer journey (Anderson, 1986; Cella & Tross, 1986; Collins, Taylor, & Skokan, 1990; Coward, 1991). A diagnosis of breast cancer, however also can present a profound threat to women. Between 3% and 19% of women with breast cancer experience post-traumatic stress disorder; (PTSD, Alter et al., 1996; Jacobsen et al., 1998). Changes in the body such as post-treatment scars, pain, or physical limitations, and, as in the case of breast cancer, the absence of breast(s), serve as persistent reminders of the disease. The chronic nature of the cancer threat, the uncertainty, the internality of the threat compounded by a perception of inescapability all contribute to the potential for high levels of cancer-related distress (Gurevich, Devins, & Rodin, 2002; Sinding & Gray, 2003). Despite the awareness of the post treatment benefits of psychosocial care and physical activity, little attention has been given to women's post-treatment needs, and few resources and

services are available to assist women in managing their new self-image, or ongoing concerns, fears, and anxiety about recurrence.

Dragon boating is an intense activity that requires enormous commitment, focus, concentration, discipline, and ongoing physical training. Women in this study reported that they were attracted to survivor dragon boating because it is a positive and meaningful activity within a community of women who share a critical event in their lives. Dragon boating brings women's experience of breast cancer out of the shadows. It promotes acceptance of the disease within a broader life perspective while building awareness of and pride in survivorship. This aspect of the dragon boat phenomenon alone was an inspiring and compelling reason for some of the women to join a survivor dragon boat team.

Survivor dragon boating is a unique activity in that it holistically combines all of the individual elements identified in the psychosocial literature reported to benefit women with breast cancer, that is, physical activity, social support, emotional expression, active coping, and balance of assertiveness and acceptance in relation to the disease. The fact that the dragon boat races occur in a public forum also builds a sense of accomplishment and pride, an added dimension, as women focus on sharing their hopeful mission that "*there is life after breast cancer*" (Mitchell & Nielsen, 2002).

Social support is an important factor in the mediation of many of the negative psychosocial aspects of breast cancer such as anxiety, denial, anger, depression, and altered self-image (Oktay, 1998; Spiegel, Sephton, Terr, & Stites, 1998). Psychosocial care has been found to significantly contribute to a reduction in the cancer burden by improving adjustment to the disease and other dimensions of quality of life (Cunningham, 2000; Fawzy, Fawzy, Arndt, & Pasnau, 1995; Fobair, 1997). Natural environments that facilitate social support and social integration also can have direct benefits for health (Cohen, 2004). The *common bond* and shared experience of breast cancer among survivor dragon boaters promotes strong emotional connections. Social support and emotional expression can be important factors in mediating many of the negative psychosocial aspects of breast cancer such as anxiety, denial, anger, depression, and altered self-image (Classen et al., 2001; Oktay, 1998; Spiegel et al., 1998). The team sport of dragon boating provides a setting in which the women can connect with other survivors without focusing on cancer and emotional issues related to breast cancer, which is often the focus of peer support groups.

Metaphorically and literally, being "all in the same boat" is a comforting and strengthening aspect of survivor dragon boating. The community of women established by survivor dragon boating teams is a positive social environment that encourages both teamwork and commitment to personal goals, which promotes focus on the self in a collective setting. Participants shared that dragon boating promoted an *awakening of the self* by providing

a context in which women could focus on their own health and quality of life. Relational-cultural theory (formerly “self-in-relation theory”) suggests that this focus on the self is uncommon in our society, particularly among women, where cultural expectations emphasize growth toward connection and relationships with others to the neglect of their own needs (Jordan, 2001). Interpreting the findings through relational-cultural theory, we see the importance of mutual empathy within a supportive context, such as survivor dragon boating, and how it can lead to mutual empowerment (Evans, 2002).

Depression, distress, and anxiety often are experienced by women with breast cancer. Distress levels among women vary in intensity depending on the severity of the disease as well as phase of treatment (Simonton & Sherman, 1998). The more severe the disease, the higher the degrees of distress (Maunsell, Brisson, & Deschenes, 1992; Schag et al., 1993), with the highest degrees of trauma presenting among young women, those with unexpected recurrence, and women with advanced, life-threatening stages of the disease (Alter et al., 1996; Jacobsen et al., 1998).

When dragon boating, the women experience an *uplifting* sense of freedom, power, and control, feelings often lost in the face of cancer diagnosis and treatment. *Increased control* physically and emotionally helps women cope with the anxiety and stress surrounding the disease. The positive impact of the physical aspects of dragon boating are supported in other research that has demonstrated improvement in women’s functional status after breast cancer (Courneya et al., 2001; MacVicar, Winningham, & Nickel, 1989) as well as quality of life (Young-McCaughan & Sexton, 1991). The holistic and healing nature of dragon boating gives women strength to cope with breast cancer and *transcend* beyond a focus on fear of death to a focus on living their lives more fully.

LIMITATIONS

Our study suggests that even short involvement in dragon boating can yield important emotional and physical benefits and affect the quality of life of breast cancer survivors in positive ways. The new member sample, however, was limited in racial and cultural diversity and as such the findings do not reflect the experiences of non-Whites, new immigrants, or women of non Judeo-Christian backgrounds.

It is also important to note that 3 participants did not complete the post-season interviews and were the youngest participants who reported the lowest categories for family income. It is possible that socioeconomic challenges may contribute to women’s (in)ability to fully participate in dragon boating, despite their desires. It is also reasonable to consider how these conditions would also affect the amount of time and personal resources women have available to speak with researchers about their dragon boat experiences. Further research on the impact of age, social economic and marital

status, as well as parenting responsibilities will be important in understanding the relative accessibility and benefits of survivor dragon boating.

SUMMARY

Mentally, emotionally. . .physically. I just feel stronger. I feel stronger and more alive. . . .My whole life has changed. Like, everything's more in perspective. Things that I used to worry about or get all upset about, I don't anymore. I just think it's not that important. I think everybody you talk to, you'll find that their whole life, their perspective on life, has changed.

Participant #9

Pre- and post-interviews with survivor dragon boaters entering their first season of dragon boating confirm that some women have considerable post-treatment needs that largely are not addressed by health care systems or cancer centres. Survivor dragon boating is a community-based initiative arising in response to women's felt need for post-treatment connection and rehabilitation. Dragon boating is still somewhat inaccessible to women, however, as there are currently few, if any, formal routes for learning about or joining a survivor dragon boat team. Three of the participants learned about dragon boating through a friend or acquaintance who was a dragon boater. Three individuals learned about dragon boating through various media, magazine articles, and television, and one woman through a newspaper article given to her by a friend.

The new members who participated in the study had common goals and aspirations to attend to their physical health, to become emotionally stronger, and to increase their sense of control and hopefulness in the companionship of women who shared the experience of breast cancer. Women were attracted to the positive nature of dragon boating, to the reassuring image of survivor dragon boating, and to the potential of reclaiming personal control and power. The women's experience of their first season of survivor dragon boating surpassed their expectations in terms of physical, emotional, and social benefits, even among those with limited participation. Women reported increased energy, and no cases of lymphedema were identified. The new member study confirms previously reported findings that the repetitive, strenuous, upper-body exercise of dragon boating does not increase risk for lymphedema (Harris & Niesen-Vertommen, 2000) and supports the hypothesis (McKenzie & Kalda, 2003) that dragon boating may be rehabilitative for women who have had lymphedema prior to dragon boating. The interview data support the emerging hypothesis that dragon boating is a vehicle for improving women's quality of life after breast cancer treatment, with the potential to mitigate the psychosocial consequences of breast cancer.

Although breast cancer survivor dragon boating originated in Canada where there are now teams in most provinces across the country, survivor teams are now being formed around the world. The United States, Australia, New Zealand, China, England, Italy, Poland, and Singapore all have breast cancer survivor teams competing in survivor dragon boating. The sport continues to grow and is gaining an international following of breast cancer survivors.

Breast cancer identity, anxiety, and quality of life challenges do not end at the termination of treatment. Further research is required to increase understanding of the transition from active treatment to survivorship and the potential of survivor dragon boating and women's camaraderie to contribute to increased quality of life and the reduction and management of post-treatment effects.

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