

Effect of Jin Shin Jyutsu Energy Medicine Treatments on Women Diagnosed with Breast Cancer

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Purpose: The purpose of the study was to evaluate the effectiveness of 10 weekly treatments of Jin Shin Jyutsu (JSJ), as practiced by a qualified practitioner, for women diagnosed with breast cancer.

Design: A pre-test, post-test exploratory evaluation project design was used. Twenty-nine women provided complete data. **Methods:** Adaptation, social support, activities of daily living, helpfulness of JSJ, and project participation goals were measured by an investigator-developed questionnaire prior to and at the end of the 10 JSJ sessions. **Findings:** Nonparametric statistical analyses revealed that at the end of the JSJ sessions, women had higher levels of adaptation and performance of activities of daily living but no difference in satisfaction with social support than at the beginning of project participation. Descriptive analyses indicated that women reported that JSJ was helpful and that their goals had been met. Content analysis of goals revealed that the women wanted to feel better physically and emotionally and to live a fuller life, and were seeking balance in life. **Conclusions:** JSJ may be an effective intervention for women with breast cancer. Although the sample size was small and a single practitioner provided treatment, the results indicate that a large-scale evaluation with multiple practitioners is warranted.

The purpose of the Hygeia (the Greek goddess of healing) Project was to evaluate the effectiveness of Jin Shin Jyutsu® (JSJ) energy medicine, as practiced by a qualified practitioner, on women who were or had been receiving medical treatment for breast cancer. JSJ is thought to be an effective modality to maintain health and a high quality of life but its effectiveness for women with breast cancer has not yet been adequately determined.

Given the increased chances of surviving breast cancer, the prolonged medical treatment involved and the possibility of metastasis, healthcare professionals are focusing more attention on survivorship. The goal is to enhance survivors' quality of life. Conventional medical treatment

focuses on the illness, whereas complementary and alternative medicine (CAM) modalities, such as JSJ, focus on the whole person – physically, mentally, emotionally, and spiritually. Evaluations of CAM modalities provide data that can be used by healthcare professionals, treatment funding organizations, and patients to determine the best ways to maintain health, a sense of well-being, and the highest possible quality of life during and after the completion of conventional medical treatment.

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JIN SHIN JYUTSU

Jin Shin Jyutsu (JSJ), a term meaning Creator's art through the person of compassion, or way of the compassionate spirit, was rediscovered, developed, and named by the Japanese philosopher and healer, Jiro Murai, in the early 20th century (A. Burmeister, 1997, M. Burmeister, 1994, Venes, 2009). JSJ was brought to the Western world through the work and teaching of Mary (Iino) Burmeister, a first generation Japanese-American. (M. Burmeister, 1994). Grounded in philosophy, psychology, and physiology, JSJ is a hands-on energy medicine practice used to address health imbalances. (A. Burmeister, 1997). The National Institutes of Health National Center for Complementary and Alternative Medicine (2006) defines energy medicine as therapies that are based on the thesis that human beings are infused with a subtle form of energy and that illness results from disturbances of that energy. "Virtually all traditional healing systems – from Ayurvedic to Greek and Chinese – are founded on the principle that in order to heal the body, the person must strengthen and harmonize the flow of life energy within" (A. Burmeister 1997, p. 13). JSJ is a well-organized and comprehensive system of health and healing. Sharing common roots with acupuncture and acupressure, JSJ draws on ancient Asian healing traditions as well as Tibetan, Hindi, Mediterranean, and Native American traditions. JSJ encompasses the concepts of a universal life source, 12 organ flows (meridians) and 5-element theory (Sempell, ND).

JSJ involves gentle touch applied by a qualified practitioner and self-help. Treatment sessions are about an hour and often include self-help instruction. After assessment, the practitioner employs a harmonizing sequence appropriate for unblocking particular pathways and restoring the energy flow (Burmeister & Landon). During a session, heart-to-heart communication, deep listening, and gentle touch facilitate restoration. Learning simple, self-help practices empowers individuals to participate in their healing. Although each session is unique to each person, a common effect is deep relaxation.

REVIEW OF LITERATURE

Although numerous instances of anecdotal evidence of the efficacy of JSJ are available in publications and on the internet, little published research is available. Two medical journal reports about acupressure, a modality very similar to JSJ, revealed that acupressure was beneficial in reducing nausea for patients who were undergoing chemotherapy (Dibble, Chapman, Mack, & Shih, 2000; Molassiotis, Helin, Dabbour, & Hummerston, 2007). Sempell (2005) conducted a single-blind pilot study of the effects of JSJ on quality of life and well-being in a sample of 20 women undergoing chemotherapy for metastatic breast cancer. The experimental group women received twice-weekly JSJ treatments for 12 weeks. The control group received cash for their participation. Self-reported assessments (FACT-B and Piper Fatigue Scale) were completed prior to beginning JSJ treatments and repeated four times during the 12 weeks. Sempell also obtained physiological data from an oncologist. No evidence of a treatment effect was found for the FACT-B, Piper Fatigue Scale, or physiological measures. No statistically significant differences between the groups over time were found, the analyses did not control for the baseline non-equivalence of the groups, and further analysis did not reveal any factors other than chemotherapy that were related to fatigue or well-being.

CONCEPTUAL FRAMEWORK

The Roy Adaptation Model (Roy, 2009) was used to guide the evaluation project, particularly the selection of the outcomes and questionnaire construction. This conceptual model of nursing views individuals as adaptive systems who respond to environmental stimuli, represented in this project by the women who received JSJ treatments and JSJ, respectively.

Roy (2009) proposed that responses to environmental stimuli are manifested in four modes of adaptation – physiological (physical feelings), self-concept (emotional/mental feelings and feelings about body and self), role function (activities of daily living) and interdependence (social support). The physiological and self-concept modes of adaptation were represented

in this project by the women's feelings. The role function mode of adaptation was represented by activities of daily living. The interdependence mode of adaptation was represented by social support. Roy (2009) also proposed that people form judgments about environmental stimuli; in this project, judgments were represented by helpfulness of JSJ treatments and goal attainment.

METHOD

Design

A pre-test, post-test mixed method evaluation project design (QUAL + quan) was used.

Sample

The Hygeia Project was open to women who had just been diagnosed with breast cancer, who were in active conventional medical treatment, or who had completed treatment within the last three years and were experiencing lasting effects such as chronic fatigue, depression, or an inability to get back into the flow of life.

JSJ Protocol

The women were recruited from two sites, a small CAM healthcare center in midcoast Maine (n = 25) and a cancer care center in central Maine (n = 6). The protocol called for each woman to receive 10 sessions of JSJ over a 10-week period and to practice daily self-help because the effects of JSJ are considered to be cumulative. The actual time period for the 10 sessions ranged from 10 to 13 weeks (M = 10.7 weeks) due to illness, weather, death of a parent, work schedule, or an administrative delay. Each participant was asked to wear clothing that would allow her to be comfortable while lying still on her back on a massage table for about an hour. Inasmuch as the best results are thought to be obtained on an empty stomach, if the women were scheduled right after a usual mealtime, they were asked to eat lightly and bring a snack for after the session.

As a person-centered holistic approach, there is no standardized JSJ treatment. Individual treatments, administered by the first author (KS),

were based on what was indicated by the energy flow in the body as felt by the practitioner while holding the woman's wrists, by observing the body, and by reported symptoms at the time of the sessions. A typical session began with assessment through observations such as ease of movement, level of vitality, quality of voice and breathing, and skin color; oral reporting of feelings and symptoms; and through the quality of energy felt by the practitioner while holding the participant's wrists. Based on a synthesis of observations, the practitioner selected one or more sequences of hand-holds to restore energy flow balance. Through these hand-holds, the practitioner was in constant communication with the participant's energy flow and responded by changing pace or placement of her hands, as needed. Though often seated, she moved to work from positions at the participant's feet, head, or either side.

Each session was unique, based on the unique information brought to that session. At the completion of the hands-on part of the session, the practitioner again assessed the quality of energy felt in the participant's wrists, which reflected shifts in energy. The women were then taught one or two simple self-help hand-holds and were asked to practice on their own. They, along with a member of their self-identified support team (husbands, other family members, and friends), were given the opportunity to participate in a 3-hour self-help class which was offered five times during the project period (four times in midcoast Maine and one time in central Maine). Most of the women (n = 23, 80%) attended the classes, and 14 (61%) of those women brought support team members.

Study Measures

Both qualitative and quantitative data were collected before and after the 10 JSJ sessions. The questions reflect content validity for items derived from the Roy Adaptation Model modes of adaptation. The women's feelings, which represented the Roy Adaptation Model physiological and self-concept modes of adaptation, were measured by their responses to four open-ended questions (How do you feel physically?

How do you feel emotionally / mentally? How do you feel about your body? How do you feel about your self?). The responses were subjected to content analysis by the second author and categorized as adaptive or ineffective. Adaptive responses are those that indicate that the person's goals for survival, growth, reproduction, mastery and personal and environmental transformation have been met. Ineffective responses indicate that the person's goals have not been met and signal a need for intervention. The second author (JF) has conducted content analyses of participant responses to several similar instruments, with satisfactory intra-rater and inter-rater reliability. An adaptation score for each woman was calculated by dividing the number of adaptive responses by the total number of adaptive and ineffective responses and multiplying by 100. The possible adaptation score range is 0 to 100, with higher scores indicating greater adaptation (Fawcett, 2006).

Activities of daily living, which represented the Roy Adaptation Model role function mode of adaptation, were measured by questions asking the women to list the activities they currently were performing and their satisfaction with those activities. Analysis of these questions was limited to simple tallies of activities. Activities of daily living were also measured by the Comprehensive Inventory of Functioning – Cancer (CIF-CA; Tulman & Fawcett, 2007), which includes items about the women's desire to perform activities of daily living as well as their actual performance of the activities. Scores range from 1 to 3 for desire to perform activities and from 1 to 4 for actual performance of activities; higher scores indicate greater desire and actual performance, respectively. The CIF-CA has documented adequate reliability and validity (Tulman & Fawcett, 2007).

Social support, which represented the Roy Adaptation Model interdependence mode of adaptation, was measured by questions asking the women to list the members of their social support system, as well as the amount of and satisfaction with obtained support. Simple tallies were used for analysis of these data.

Additional questionnaire items focused on measuring helpfulness of the JSJ sessions and goal attainment, which represent the person's

judgments about the intervention (Roy, 2009). A numeric rating scale was used to measure how helpful the JSJ sessions were, with 0 indicating "not at all" and 10 indicating "extremely helpful." Single-item indicators are considered to be reliable and valid measures (DeSanto-Madeya & Fawcett, 2009). To assess whether goals were met or unmet, the women were asked to list their goals for the treatment sessions prior to beginning the JSJ sessions. At the end of the tenth session, the women were asked if their goals had been met and to explain their answer. A simple tally was used to count the number of women who indicated their goals had been met and those who indicated their goals had not been met. Content analysis of the explanations was used to identify themes. The two authors discussed and reached consensus on the labels for the themes, which supports inter-rater reliability.

Procedures

Prior to beginning the JSJ sessions, the women completed the questionnaires at their homes and either mailed them to the practitioner or brought them to their first JSJ session. Most women again completed the questionnaires immediately after their tenth JSJ session; they were in a separate room where the practitioner was not present. A few women took the questionnaires home to complete and returned them by mail within three weeks.

The research project received exempt status through a central Maine medical facility Institutional Review Board (IRB). No other IRB approval was required. The women volunteered specifically for the Hygeia Project. All data were collected by the first author (KS), at the beginning and end of the series of 10 JSJ sessions. Prior to the women's participation in the project, the first author explained the JSJ project, and the women signed an informed consent form. Consistent with HIPPA, all identifying information was held in the first author's office. A privacy code was assigned to each woman and used on all instruments, which were submitted to the second author (JF) as de-identified data for analysis.

Data Analysis

All data were analyzed by the second author (JF). Descriptive and nonparametric statistics were used to analyze quantitative data, and content analysis was used for qualitative data.

RESULTS

Recruitment and Retention

For referrals to the Hygeia Project, the first author (KS) collaborated with a breast cancer navigator nurse and an oncology social worker at a small medical center in midcoast Maine, and with a breast care program nurse at a central Maine cancer care center. A brochure describing the program was distributed by the nurses and social worker and placed in the waiting rooms of clinics and primary care physician offices. Although women were invited to self-refer in project publicity, referrals came primarily through the referring collaborators and the women's own networks.

A total of 31 women volunteered to participate in the Hygeia Project. Two women left the project prior to completing the 10 JSJ treatments, leaving a data-generating sample of 29 women. The two women who left had each received three sessions. For one woman, a change in her social situation prevented continued participation; the other woman indicated she did not like the treatments.

Sample Descriptive Data

The women ranged in age from 31 to 75 years ($M = 58$ years). Consistent with the limited ethnic diversity of the region, the vast majority ($n = 27, 93\%$) of the women reported that they were White, non-Hispanic. Another woman reported her ethnic background as Eastern European (Russian and German) Jewish, and the other woman reported her ethnic background as Jewish. All women were high school graduates; 26 (90%) had at least some college education, and 9 (31%) had attended graduate school. Nine-tenths of the women were or had been in partnered relationships ($n = 26, 90\%$). The women had 1 to 4 children, ranging from 7 to 50 years of age. Fourteen (48%) women were employed full- or part-time, 6 (21%) were retired, 7 (24%) were unemployed due to illness, and 1 (3%) was

unemployed due to an unspecified reason. One woman (3%) indicated she was a homemaker. Approximately three-fifths ($n = 18, 62\%$) of the women considered themselves religious or spiritual. Another one-fifth ($n = 6, 21\%$) considered themselves somewhat religious or spiritual.

All of the women who participated in the project had a diagnosis of breast cancer. The two women who had an initial breast cancer diagnosis in 2003 had metastatic disease at the time of project participation. The women joined the Hygeia Project from 1 to 31 months following the breast cancer diagnosis (mode = 9 months). All but 1 of the 29 women had experienced breast cancer surgery. Most had received at least one form of adjuvant therapy – approximately three-fifths received radiation therapy ($n = 18, 62\%$) or chemotherapy ($n = 17, 59\%$), and almost three-quarters ($n = 21, 72\%$) received hormonal therapy. Two-thirds ($n = 19, 66\%$) were receiving adjuvant treatment for breast cancer during project participation. Almost three-fifths ($n = 17, 59\%$) received CAM treatment, such as acupuncture, massage, biofeedback, body work, homeopathy, chiropractic, yoga, or dietary supplements.

FINDINGS

Physiological and Self-Concept Modes of Adaptation: Feelings

Analysis of the women's responses to questions about their feelings revealed that at the beginning of participation in the project, their adaptation scores ranged from 0 to 90 ($M = 32.75$). At completion of participation, their adaptation scores ranged from 16.67 to 100 ($M = 76.47$). Wilcoxon signed ranks test analysis revealed that the observed substantial difference between the two average adaptation scores was statistically significant ($Z(28) = -4.455, p < .005$), indicating that the women had a higher level of adaptation at the end of their project participation.

Role Function Mode of Adaptation: Activities of Daily Living

Most women were satisfied or very satisfied with their activities of daily living at the beginning

and end of their participation in the project (see Table 1). Marginal homogeneity test analysis (an extension of the McNemar test for paired multinomial data) indicated no statistically significant difference in the women's satisfaction with the activities they currently were doing at the beginning and end of their project participation, $MH = 1.89, p = .059$.

Table 1. *Women's Reports of Satisfaction with Current Activities of Daily Living at the Beginning and End of Participation in the Hygeia Project (N = 29)*

Extent of Satisfaction	BEGINNING		END	
	n	%	n	%
Not satisfied	9	31	3	10
Satisfied	11	38	13	45
Very satisfied	7	24	12	41
Missing data	2	7	1	3

Current performance of activities of daily living. Analysis of responses to the CIF-CA revealed that on average, the women were performing their usual activities some of the time both at the beginning ($M = 2.55$, on a scale of 1 to 4) and the end ($M = 2.71$) of their participation in the project. Wilcoxon signed ranks test analysis revealed that the women's level of performance of their usual activities was statistically significantly higher at the end of their participation in the project, $Z(28) = -2.779, p = .005$.

Desired performance of activities of daily living. Further analysis of CIF-CA responses using the Wilcoxon signed ranks test revealed no statistically significant change in the desired level of performance of usual activities from the beginning ($M = 2.42$, on a scale of 1 to 3) to the end ($M = 2.34$) of the women's participation in the project ($p = .166$). The mean scores for desired performance of usual activities indicate that, on average, the women wanted to perform their usual activities at about the same level as they currently were performing those activities.

Interdependence Mode of Adaptation: Social Support

All of the women indicated that they received support from family and/or friends and/or community groups such as church organizations,

and/or cancer support groups. At the end of their participation in the Hygeia Project, two women also reported that they received support from their physicians. Most support was, as might be expected, from family and friends (see Table 2). Most women were at least somewhat satisfied by the amount of support they received both at the beginning and the end of their participation in the Hygeia Project. Marginal homogeneity test analysis revealed no statistically significant difference in the women's satisfaction with the amount of support they received at the beginning and end of their participation in the Hygeia project, $MH = -0.333, p = .739$.

Table 2. *Women's Reports of Sources of Social Support at the Beginning and End of Participation in the Hygeia Project (N = 29)*

Source of Support	BEGINNING		END	
	n	%	n	%
Family Members	28	97	29	100
Friends	22	76	21	72
Community Groups/ Organizations	6	21	6	21
Cancer Support Group	9	31	4	14
Physicians	0	0	2	7
Satisfaction with Support				
None	0	0	1	3
Some	15	52	13	45
A lot	13	45	15	52
Missing data	1	3	0	0

Judgments: Helpfulness of JSJ

On average, the women reported that JSJ was very helpful ($M = 9.03$, range = 6 to 10, on a scale of 0 to 10). Nonparametric correlational analysis revealed that the more helpful JSJ was regarded, the higher the level of the women's adaptation at the end of their participation in the project (Spearman's $\rho(27) = .48, p = .008$). In contrast, there was no evidence of an association between helpfulness of JSJ and performance of activities of daily living at the end of the women's project participation (Spearman's $\rho(27) = .33, p = .082$).

A review of practitioner session notes revealed that 17 out of 29 women committed to regular self-help practice. Among this group, on average, the women reported that JSJ was very helpful (M

Table 3. Women’s Goals for Participation in the Hygeia Project (N = 29)

GOALS	GOALS MET
Be more conscious of energy maintenance and source	Yes
Feel better physically, mentally	Yes
Learn to come to terms with body; bring body, soul, spirit into better alignment; relax more	Did not remember having goals
Relieve anxiety, depression; able to reach a level of calm	Yes
To feel better; have more energy	Yes
Open to JSJ therapist and surrender to JSJ process	Yes
Move negative sapping energy out and restore positive self; ease effects of tamoxifen	Yes
To feel better	Yes
Increase relaxation and energy; help with pain management	Yes
Increased energy	Yes
To become adept at comforting self with JSJ and bask in healing treatments	Yes
Better outlook about self; have more energy	Yes
Feel better; more energy; get back to mainstream life	Yes
More energy – physical and emotional; stronger; less pain; learn to be aware of my body, stressors, etc.	Yes
Counter anxiety, depression	Yes
“To gain greater balance, deeper balance”	Yes
Do not know enough about project to have goals or expectation	Yes
Less pain, fatigue, “just to feel a bit more human again and not a total wreck;” contribute to the project to help others	Yes
Less anxiety and worry; to let go of concerns	Yes
To get over fatigue	Yes
“Emotional strength and mental health leading to a more fulfilling lifestyle”	Yes
More energy so “feel more positive about life”	Yes
Improve mood, stamina; reduce pain and discomfort from neuropathy	Yes
“To become more aware of my body and my spirit so I can find peace and acceptance”	Yes
“To get a grip on [back] pain” which “stops me from living life with passion”	Yes
“To get to a good place for me physically and emotionally and spiritually”	Yes
Accept that I had cancer “and that life can go on”	Yes
“To be at home in my body”	Did not recall goal
“To find balance in my life”	Yes

= 9.6) and 100% attended the 3-hour self-help class. The nine women who did some self-help practice reported JSJ was helpful (M = 8.8) with 67% attending the 3-hour class. The three women who did no self-help practice found JSJ, on average, somewhat helpful (M = 6.7).

Judgments: Goals for Participation in the Hygeia Project

As can be seen in Table 3, at the completion of participation in the Hygeia Project, the vast majority (n = 27, 93%) of the women indicated that their goals for JSJ treatment were met.

Content analysis of the women’s goals for participation revealed four themes – wanting to feel better physically, wanting to feel better emotionally, seeking balance in life, and wanting to live a fuller life.

Wanting to feel better physically, such as wanting to have more energy or less fatigue or freedom from pain. One woman commented, “After the first session, I could feel a difference. My neck and shoulder pain went away and the pain in the bottoms of my feet went away. And the breathing technique was a big help.” Another said,

[JSJ] helped me heal from surgery and then with the side effects of chemotherapy: fatigue, nausea and sleep disruption. I would go in feeling very low and come out rejuvenated and able to cope with whatever the next week of the illness had to throw at me. At a time when my resources were dwindling, you can’t imagine what a gift this was to have 10 free sessions of JSJ.

Wanting to feel better emotionally, especially a reduction of anxiety or depression. One woman said,

I feel very fortunate to have been able to participate in the Hygeia Project. When I began the JSJ sessions, I was not sure how I was to go on in life due to a high level of anxiety surrounding breast cancer. Through the 10 week process of the JSJ sessions and the morning workshop I attended, I was able to gain new perspective and get a new handle on my fears. The self-help exercises opened an emotional door for me and an opportunity to control a situation that felt uncontrollable. I am so thankful for the grant and for the encouragement and support I received.

Another added,

I feel that my JSJ sessions have really helped me sort out and view my emotions. I was open to whatever was to happen. Perhaps even skeptical that anything would happen. I was unprepared for the deep relaxation and peaceful feeling I have after a session. I'm still not sure how it works, but it does.

Seeking balance in life. One woman said,

I feel that a gift of the work is and will be a way to be present to my body and mind and feelings. I feel that the practice will create a framework I can use to check in with myself and rebalance.

Wanting to live a fuller life. Many women's goals included all of these common themes. One woman explained,

After 3 surgeries and 6½ weeks of radiation, I returned to work full-time. When I started on Tamoxifen in the spring, I felt exhausted most of the time. I also experienced a feeling of hopelessness. I became discouraged about financial problems, and I had a hard time feeling focused or mentally alert.... In July, I started a 10 week treatment program with [the JSJ] practitioner]. She also taught take home techniques to practice during the week. By the third visit, I began to feel great, my moods were elevated, I felt relaxed instead of stressed out, and I regained my energy.

Another participant declared,

Before I started this project, I was constantly tired, listless, very anxious, slightly depressed and felt very separated from my normal life. Going through the JSJ experience rekindled my energy level and helped me to move forward into the next part of my life. I feel very strongly that JSJ is an invaluable tool for helping breast cancer patients recover from the shock and trauma of having cancer. I have nothing but gratitude for the fine medical care I received, but the medical process is only a part of getting well. JSJ is one of the finest healing processes I have ever experienced.

Comparison of Women Who Were Currently Receiving Adjuvant Therapy with Women Who Had Completed Adjuvant Therapy

Mann-Whitney U analyses revealed that women who were currently receiving adjuvant therapy at the beginning of their participation (n = 19) did not differ from those who were not receiving

adjuvant therapy (n = 10) in their level of adaptation (p = .267), in the extent of their performance of usual activities either at the beginning (p = .169) or the end (p = .646) of their participation in the project, or in their regard for how helpful JSJ had been at the end of their participation in the project (p = 1.000).

DISCUSSION

The Roy Adaptation Model was a useful guide for this evaluation project. The modes of adaptation provided a comprehensive and holistic structure for selection of Hygeia Project outcomes and questionnaire construction, as well as for interpretation of the findings.

"Adaptation," according to Roy (2009), "is the process and outcome whereby thinking and feeling people...use conscious awareness and choice to create human and environmental integration" (p. 26). The finding that the women had a higher level of adaptation at the end of their participation in the Hygeia Project than at the beginning of the project suggests a movement towards improved health when defined as a state and process of being and becoming whole and integrated persons. Noteworthy is that the women's performance of activities of daily living improved regardless of their perception of JSJ helpfulness.

The finding that women who committed to regular self-help practice reported that JSJ was very helpful, whereas women who did no self-help practice found JSJ only somewhat helpful suggests that there is an enhanced benefit in learning and regularly practicing self-help. The lack of differences in adaptation, activities of daily living, and JSJ helpfulness between women who were currently receiving adjuvant therapy for breast cancer at the beginning of their participation in the Hygeia Project and those who were not currently receiving adjuvant therapy suggests that JSJ may be effective regardless of adjuvant therapy status.

Limitations and Implications for Practice

The Hygeia Project differed from traditional experimental studies in that a project design in

which each woman served as her own control was used, rather than comparing participants randomly assigned to experimental and control groups. Because JSJ affects the unique whole person it is not always clinically useful or theoretically meaningful to compare one group of people with another group. The generalizability of the results of this exploratory project is limited by the small sample size, and by use of a single practitioner. The results of this project indicate that the 29 participating women benefited from their JSJ energy medicine treatments and that JSJ was shown to be beneficial regardless of whether a woman was currently receiving or had completed medical treatment. These results suggest that JSJ energy medicine may be an effective intervention for women diagnosed with breast cancer, to help them survive and thrive. However, the influence of other CAM modalities that may have been used by some women cannot be discounted and should be taken into account in future studies.

CONCLUSIONS

The results of this initial small-scale evaluation project, which was guided by Roy's adaptation model, are encouraging, given that two of the Roy model modes of adaptation were influenced by JSJ. These encouraging exploratory Hygeia Project results indicate that a large-scale evaluation project is warranted. Power analysis for parametric measures of differences (e.g., t-test) indicates that with a medium effect size and a two-tailed alpha of .05, a sample of 64 participants is required for each of two groups (Cohen, 1992). A large-scale evaluation project should include not only an adequate sample size but also multiple JSJ practitioners, perhaps from various regions of the country, who are thoroughly trained in the application of JSJ and self-help strategies, as well as in the data collection methods. Confounding variables, such as use of other CAM modalities, general perceptions of CAM, and specific medical treatments, should be taken into account. In addition, other Roy Adaptation Model-based outcomes should be considered based on a systematic review of the literature targeted to a search for variables that reflect the physiological, self-concept, role function, and interdependence

modes of adaptation and have been found to be responsive to other CAM and non-invasive modalities, such as music therapy or guided imagery. It is important to keep in mind that a large scale evaluation of real world clinical practice is not the same as a rigorous experimental design, such as a randomized controlled clinical trial (RCT). Hence, some factors that could be controlled in an RCT may not be accounted for in an evaluation project. However, the design of an evaluation of a clinical practice such as JSJ and statistical analysis of outcome data that come from reliable and valid instruments can inject rigor into an evaluation project.

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