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## **Abstract**

Formal cancer support groups are assumed to assist women adapt to the physiological and psychosocial sequelae of breast cancer. To shed some light on this untested clinical assumption, this Roy Adaptation Model of Nursing-based study was designed to explore women's own reports about their adaptation to breast cancer and their participation in support groups. This article reports the results of the quantitative content analysis of structured telephone interviews with 70 women who participated in breast cancer support groups. Almost three-quarters of the women expressed a positive change in attitude toward breast cancer, and all regarded participation in the support groups as positive. A majority reported adaptive physiological, self-concept, role function, and interdependence mode effects of breast cancer and support group participation. Additional research is needed to show how different types of support groups contribute to women's responses. Research is also needed to separate the effects of support groups from other sources of social support that may have contributed to the women's responses, and to further explore feelings of normalization expressed by some women. Clinicians who conduct cancer support groups are encouraged to work with researchers to identify women's responses to the groups.

## **Keywords**

breast cancer, women's perceptions, physiological and psychosocial adaptation, Roy Adaptation Model of Nursing

## **Disciplines**

Communication

Women's Perceptions of Group Support and Adaptation to Breast Cancer

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Formal cancer support groups are assumed to assist women adapt to the physiological and psychosocial sequelae of breast cancer. To shed some light on this untested clinical assumption, this Roy Adaptation Model of Nursing-based study was designed to explore women's own reports about their adaptation to breast cancer and their participation in support groups. This article reports the results of the quantitative content analysis of structured telephone interviews with 70 women who participated in breast cancer support groups. Almost three-quarters of the women expressed a positive change in attitude toward breast cancer, and all regarded participation in the support groups as positive. A majority reported adaptive physiological, self-concept, role function, and interdependence mode effects of breast cancer and support group participation. Additional research is needed to show how different types of support groups contribute to women's responses. Research is also needed to separate the effects of support groups from other sources of social support that may have contributed to the women's responses, and to further explore feelings of normalization expressed by some women. Clinicians who conduct cancer support groups are encouraged to work with researchers to identify women's responses to the groups.

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## Women's Perceptions of Group Support and Adaptation to Breast Cancer

In 1997, it is estimated that 180,200 women will be diagnosed with breast cancer (American Cancer Society 1997), a disease that typically engenders substantial negative physiological and psychosocial responses (Holleb et al. 1991). Women who are diagnosed with breast cancer frequently are encouraged to attend cancer support groups to learn about the disease and ways to cope with its treatment. The efficacy of cancer support groups is, however, based on the largely untested clinical impression that patients with cancer benefit from contact with other cancer patients through mutual social support and education. An experimental study was, therefore, conducted to test that clinical impression by examining the effectiveness of cancer support groups on physiological and psychosocial adaptation to breast cancer (Samarel et al. 1997).

The purpose of this article is to report the findings from a quantitative content analysis of responses to structured interviews with a subsample of women who participated in the experimental study. The interview was designed to obtain data that would amplify and clarify the findings of the larger experimental study.

### Background

The experimental study and the interview were derived from the Roy Adaptation Model of Nursing (Roy & Andrews 1991) and the literature on sequelae breast cancer diagnosis and treatment and on support groups.

### Conceptual Model

The Roy Adaptation Model (Roy & Andrews 1991) depicts people as biopsychosocial beings required to respond to environmental stimuli. Those stimuli are categorized as focal, which refers to the stimuli most immediately confronting the person; contextual, which refers

to contributing factors in the situation; and residual, which refers to other unknown factors that may influence the situation. When the factors making up residual stimuli become known, they are considered focal or contextual. Roy and Andrews (1991) postulated that interventions influence adaptation through increasing, decreasing, maintaining, removing, or otherwise altering or changing relevant focal and/or contextual stimuli. In the present study, the cancer support groups represented different levels of the focal stimulus of social support. A more intense focal stimulus was a cancer support group with coaching by a significant other, including relatives and friends. For the purposes of this study, coaching was defined as assisting the woman with breast cancer to adapt by attending all support group sessions with her and being physically and emotionally available to her for support. The less intense focal stimulus was the cancer support group without coaching. Contextual stimuli were represented by demographic and cancer treatment variables.

According to Barone and Roy (1996), the focal and contextual stimuli pool to create the person's adaptation level. In the present study, adaptation level was represented by two questions on the interview schedule. Responses to focal and contextual stimuli take place in four modes. The physiological response mode is concerned with basic needs requisite to maintaining the physical and physiological integrity of the human adaptive system. The self-concept response mode deals with people's conceptions of their physical and personal selves, including emotions. The role function response mode is concerned with people's performance of role activities on the basis of their positions within society. The interdependence response mode deals with development and maintenance of satisfying affectional relationships with significant others. In the present study, two questions on the interview schedule tapped the four responses modes. Responses are categorized as adaptive or

ineffective. Adaptive responses are those that meet the individual's goals for survival, growth, and mastery; ineffective responses are those that do not meet the goals. It is important to point out that ineffective responses are not necessarily inappropriate responses, but rather are responses that signal a need for nursing intervention (Roy & Andrews 1991). In the present study, the women's responses to the interview questions dealing with the four response modes were categorized as adaptive or ineffective.

### Responses to Breast Cancer

Previous research has documented many ineffective physiological mode responses to breast cancer surgery, including numbness, pain, and swelling (Polinsky 1994, O'Connor et al. 1993, Ivens et al. 1992), and phantom breast sensations (Lierman 1988). Furthermore, women receiving chemotherapy may experience such ineffective responses as nausea and vomiting, hair loss, fatigue, and anorexia (Samarel et al. 1997, Love et al. 1989, Ehlke 1988). Ineffective physiological mode responses associated with radiation therapy include fatigue, skin reactions, and respiratory distress (Samarel et al. 1997).

Previous research also has documented ineffective self-concept mode responses to breast cancer diagnosis and treatment, including depression, generalized anxiety, death anxiety, confusion, and a preoccupation with health (Andersen et al. 1989; Rice-Erso 1989; Wolberg et al. 1989). Ineffective role function mode responses include difficulty functioning in usual domestic, vocational, and social roles (Tobin et al. 1993, Northouse 1990). Interdependence mode responses that are considered ineffective include difficulty with psychosexual adaptation (Wolberg et al. 1989) and difficulty maintaining the previous quality of interpersonal relationships with significant others (Knobf 1986).

### Social Support and Education

Research findings have revealed that informal social support and education from fellow patients, family members, and the health care team can influence adaptation to breast cancer (Palsson & Norberg 1995, Pistrang & Barker 1995, Levy & Schain 1988, Neuling & Winefield 1988, Northouse 1988). Formal support groups designed to help patients adapt to the sequelae of cancer and its treatment, available in many settings, are based on the premise that patients with cancer benefit from contact with other cancer patients through mutual social support. Despite the general perception that CSGs are beneficial, an extensive literature search yielded only three studies in which the effectiveness of formal support groups for women with breast cancer was evaluated. Two of these focused on extended survival and yielded contradictory findings (Gellert et al. 1993; Spiegel et al. 1989). In the third study, contrary to expectations, findings revealed no statistically significant differences in symptom distress, emotional distress, or functional status among women who participated in eight-week cancer support groups with and without coaching and women who did not participate in any support group eight weeks after study completion (Samarel et al. 1997). There was a statistically significant difference among the groups, however, in quality of the relationship with a significant other. Women who participated in the support groups with coaching experienced more positive changes in their relationships than women in the other two study treatment groups at the conclusion of the eight-week cancer support groups. This effect was not sustained, however, eight weeks following completion of group participation.

### Method

#### Sample

Data were obtained from 70 of the 122 women who participated in the experimental



study support groups with and without coaching. Data from another 10 women of the 122 women were used to establish interrater reliability for the coding instrument and were not used in the subsequent data analysis. The remaining 42 women were not interviewed because content analysis of the first 80 interview transcripts indicated that data saturation had been achieved. Another 59 women in the original experimental study were not included in the present study because they formed a control group that did not participate in any type of cancer support group.

The women were recruited via letters distributed by physicians' offices, hospitals, the American Cancer Society Reach to Recovery program, and through notices in newspapers. The sample was limited to English-speaking women who had surgery for Stage I or Stage II breast cancer within four months of beginning study participation, were experiencing no major underlying medical problems, and had not previously attended another group.

The demographic and cancer treatment variables of the 70 women are given in Table 1. T-tests revealed no differences in demographic or cancer treatment variables between the women in the experimental study who were interviewed and those who were not. Thirty-three of the 70 women participated in support groups with coaching, and 37 participated in support groups without coaching. T-tests and chi-square analyses revealed no statistically significant differences in demographic characteristics or cancer treatment variables between the two types of support groups.

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Insert Table 1 About Here

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### Cancer Support Groups

The women who were interviewed participated in either an eight-week cancer support group with coaching by a significant other or in an eight-week cancer support group without coaching. The content of the two types of support groups was the identical (Table 2).

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Insert Table 2 About Here

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### Instrument

A structured interview schedule, which was developed by the investigators, was directly derived from the Roy Adaptation Model (Roy & Andrews 1991), the framework which guided the experimental study (Samarel et al. 1997). In keeping with the Roy Adaptation Model's focus on patients' perceptions, the main intent of the interview was to obtain data that would capture each woman's own ideas about the impact of breast cancer and their participation in the support groups. The two questions designed to determine the women's current adaptation level were: "What was your participation in this study like?", and "How do you view your illness?" The two questions designed to tap the four Roy model response modes were: "How does your illness affect you physically [physiological mode], emotionally [self-concept mode], in carrying out your activities [role function mode], and with family and friends [interdependence mode]?", and "How did your participation in this research help you or not help you physically, emotionally, in carrying out your activities, and with family and friends?"

### Procedure

All women were interviewed via telephone during the two-year period from 1991 to 1993. The principal investigator or a trained research assistant interviewed the women two months following completion of the eight-week support groups. Results of previous research indicate that quality-of-life data obtained via telephone interviews by trained interviewers are as reliable as face-to-face interviews (Korner-Bitensky & Wood-Dauphinee 1995; Nebot et al. 1994). Interviews averaged 15 minutes (range=5 -30 minutes). All interviews were audio tape-recorded and transcribed verbatim.

### Data Analysis

The transcribed interview data were systematically analyzed by means of a quantitative approach to content analysis (Weber 1990, Krippendorff 1980). This approach was selected because "The best content-analytic studies use both qualitative and quantitative operations on text. Thus content analysis methods combine what are usually thought to be antithetical modes of analysis" (Weber, 1990 p. 10). Moreover, this approach, which is consistent with the Roy Adaptation Model research guideline supporting both qualitative and quantitative analyses (Barone & Roy 1996), has been used successfully in other studies in which qualitative interview data were analyzed quantitatively (Reichert et al. 1993). The unit of analysis was the interview, which was categorized according to whether words, phrases, or sentences expressed a thought or feeling about study participation and breast cancer. The coding instrument was developed in 5 iterations, using the same 10 interview transcripts for each iteration. Those 10 transcripts were not included in the description of the study sample or in the final content analysis.

The women's responses to the questions dealing with how their illness and their study participation affected them physically, emotionally, in the performance of their usual activities, and in relationships with family and friends overlapped. The responses to the two questions were, therefore, combined. Consequently, the content analysis yielded six variables. Two variables--attitude toward breast cancer and attitude toward study participation--represented the woman's adaptation level. Four other variables--physical functioning effects, emotional well-being effects, performance of usual activities effects, and relationships with family and friends effects--represented the woman's physiological, self-concept, role function, and interdependence mode responses, respectively. The coding instrument included coding instructions and the coding categories for each variable. The coding categories for the attitude toward breast cancer variable were 0 (nothing said/no information), 1 (worse), 2 (no change), and 3 (better or cured). The coding categories for the attitude toward study participation variable were -1 (negative), 0 (neutral), +1 (positive), and +2 (very positive/enthusiastic). The codes for these two variables represented varying adaptation levels (Roy & Andrews 1991). The coding categories for the four effects variables were -1 (negative impact), 0 (no impact), +1 (improved), and +2 (much improved). The negative impact code represented an ineffective response, whereas the improved and much improved codes represented adaptive responses (Roy & Andrews, 1991). The no impact code was not classified as either adaptive or ineffective. The variables and coding categories were formulated to reflect most closely how the women actually responded to the interview questions rather than what the investigators expected to find. Interrater reliability was established by four independent coders. Krippendorff's (1980 p. 132-140) alpha reliability coefficient for the one variable, attitude toward breast cancer variable was .78, which reflects borderline reliability that cautions

against drawing definite conclusions about the data. For the remaining five variables, the Krippendorff alpha coefficients were acceptable, ranging from .91 to .99.

### Results

The results of the content analysis are presented in Table 3. Initial chi square analyses revealed no statistically significant differences in any of the variables between the women who participated in the support groups with coaching and those who participated in the support groups without coaching. Subsequently, the data for the two types of support groups were combined and subjected to chi-square analyses to test the null hypothesis that the number of positive and negative, or adaptive and ineffective, codes for each variable would be equal. This method of data analysis permits systematic and objective treatment of the coded responses to the interview questions (Kerlinger 1986; Krippendorff 1980).

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Insert Table 3 About Here

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#### Adaptation Level: Attitude Toward Breast Cancer

Inasmuch as the reliability coefficient for this variable was not adequate, chi-square analysis was not performed. In response to the question, "How do you view your illness?", a few women ( $n=5$ , 7.1%) indicated that their attitude toward breast cancer had worsened since beginning study participation. Three themes emerged from further analysis of the these five women's interview transcripts. One theme dealt with the women's fears of mortality: "I felt overwhelmed and I still do. I never thought of mortality and now I do."

Another theme focused on concerns about children: "I just always worry about my daughter who is eight years old." The third theme addressed fears about disease recurrence:

"I feel very apprehensive about it recurring," and "Well, you know, it's a spooky illness because I'm still so concerned about the other breast."

Some women ( $n=8$ , 11.4%) indicated that their attitude toward breast cancer had not changed throughout the duration of the study: "I'm still very angry."

The majority of women ( $n=51$ , 72.9%) indicated that their attitude had improved and that they felt better. The interview transcripts contained comments that reflected the theme of less fear:

I'm definitely not as panic stricken as I was. I'm still very frightened of it but I try to pretty much keep that under control. I try not to let it rule me everyday like it did in the beginning.

Other comments reflected the theme of cure: "[I'm] cured." "[My breast cancer is] something in the past." The theme of cure with reservations was evident in eight (11.4%) women's comments: "I think that the cancer has been removed, however, I'm still a little apprehensive about maybe it's gone to other sites." Often, these reservations were expressed in terms of the chronicity of the disease: "I see it still as something that I'm going to have to learn continually to live with. . . but I think we can handle it." "There are times when I wonder. I have been told that I have a very good prognosis, but I get a little anxious about the future. I guess that'll always be a part of my life."

Still other comments emphasized the theme of positive feelings: "I'm thinking very positive. I feel good, I look good."

The theme of cancer as a test was also evident in the women's comments:

The breast cancer [was] almost like a test that I was put through to see how much you could deal with. I don't really perceive it as bad. It's kind of

worrisome but it's more like examining yourself and see what you still have left or still what you can go through.

#### Adaptation Level: Attitude Toward Study Participation

Responses to the question, "What was your participation in this study like?", were tested by chi-square analysis. For the purposes of the analysis, the "positive" and "very positive" codes were collapsed to yield one code (positive). The null hypothesis that there would be an equal number of positive and negative responses was rejected ( $p > .05$ ). None of the women gave a negative or neutral response (Table 3). Examination of the interview transcripts revealed that the high adaptation level represented by the positive and very positive codes was most frequently expressed by the theme of the women's confidence that they were not alone: "It makes you realize that you're not alone, that it can happen to anyone, and it's not a death sentence."

Another theme focused on the opportunity to verbalize feelings. In particular, some women ( $n=13$ , 18.6%) mentioned that they appreciated being able to speak with others who understood the experience of breast cancer, and the resultant feelings of encouragement they experienced: "It really helped to talk to people [who] know how you're feeling and what you're doing and going through;" and "It helped to put my mind at ease about things I didn't understand."

Still another theme, expressed by 11 (15.7%) of the women, dealt with their appreciation of the information obtained from the support groups: "Very informative, helpful, and it made you feel a lot better mentally;" and "It answered so many questions for me. There were a lot of puzzles in my head and everything just came together."

### Response Modes

For the combined questions, "How does your illness affect you physically, emotionally, in carrying out your activities, and with family and friends?", and "How did your participation in this research help you or not help you physically, emotionally, in carrying out your activities, and with family and friends?", chi-square analyses were performed by collapsing the "improved" and "much improved" codes to yield one code (adaptive response) and by treating the "no impact" code as missing data. The null hypothesis that there would be an equal number of adaptive and ineffective responses was rejected for each variable ( $p > .05$ ). None of the women indicated a negative effect on physical functioning, emotional well-being, performance of usual activities, or relationships with family and friends from their illness or study participation. Noteworthy, however, is the sizable percentage of women who indicated that neither breast cancer nor support group participation had any effect (Table 3).

Physiological Mode Responses. Examination of the interview transcripts from women whose answers about physical functioning were regarded as adaptive responses ( $n = 39$ , 55.7%) revealed that the predominant theme addressed the utility of the information received. The women commented that they found the support group content on exercise and stress management particularly helpful: "I played the tapes, the exercise tapes. I've gotten a lot out of that;" and "It helped me relax more."

Furthermore, the women reported that the information gained from support group participation facilitated their awareness of the importance of a healthy lifestyle: "I learned a lot about nutrition, exercise, stress relief...;" and "It [support group participation] taught the things you could do like how to take care of yourself."



In addition, the women stated that receiving medical information was helpful: "I had questions about the Nolvadex. Dr. --- is a wonderful doctor but he is not all that great about answering questions. These people helped answer questions for me;" and "It told me a lot because I didn't know what was going to happen and what I was going to do about it."

Three women (4.3%) explained that learning about other women's experiences during their participation helped them to deal with their own symptoms of treatment:

When I got this cancer and they said I had to go on chemo, I thought, "I'm not going to be able to do anything; I'm going to be sick and I'm not going to get around." I went to the support group and some of them were on chemo, and they were getting along and some were going to their jobs and they weren't getting sick. I saw that and thought, "I can do it, too." And I did. I managed, even with getting sick sometimes.

Moreover, the women indicated that the presence of unpleasant treatment-related symptoms, such as chemotherapy-induced nausea, was less distressing once they understood the cause of symptoms and realized that these symptoms would be time-limited:

Sometimes I'm feeling really bad. But then I think about it and realize that the reason I'm nauseated or tired or whatever is because the chemo is doing its job. And then, instead of hating the way I feel, I'm thankful because I know that the chemo is fighting the cancer.

The large percentage ( $n=31$ , 44.3%) of women whose answers about physical functioning were coded as "no impact" typically stated: "I've had no problems physically. I didn't loose any hair or anything like that."

Self-Concept Mode Responses. Examination of the interview transcripts from women whose answers about emotional well-being were regarded as adaptive responses (n=64, 91.4%) revealed several themes. One theme focused on the utility of support group participation for reduction of stress, anxiety, tension, and fear, and promotion of a relatively positive outlook: "It helped me relax more, to relieve stress, and taught us lots of things, like how we can keep up with our appearance so that we don't become depressed or anything like that." "We all talked about how our emotions were affected and I felt very good when I left the group, very upbeat." "It made me feel less nervous, a lot less stressed. It really calmed me down."

Another theme dealt with downward comparison, which the women noted was helpful in enhancing overall emotional well-being. One type of downward comparison addressed treatment: "The majority of the women in the group were undergoing chemotherapy. I got to count my blessings because I wasn't." The other type of downward comparison addressed age:

It [breast cancer] hit me at the age in the 70s and to think that the others [in the support group] were so much younger than me and I felt so fortunate. So I felt like I was blessed, really and felt, "Oh, thank God, it's not me" (so young).

A third theme focused on the feelings of normalization that were derived from support group participation:

To listen to somebody else say what you're thinking, that was a big help. I didn't feel like I was crazy.

I didn't know anyone else who went through chemo and I didn't know how anyone else felt and it was nice to go and find out that everybody else was

just as sick as I was and I wasn't the strange one. My doctor did say that some people get chemo and don't have any effect at all and I thought, "Why me?" But the other people were all sick the same as me and it was good to realize that.

Still another theme addressed the emotional benefit derived from the opportunity to assist other support group participants: "It makes me feel good to be able to help others [in the support group] and, the funny thing is, I never thought I could do it."

An additional theme focused on the enhancement of emotional well-being actually engendered by the breast cancer:

I think it helped me regain my confidence in myself.

It's the strangest thing. I'm not as uptight as I was before I had this problem. I used to be a nervous person now I figure life has dealt me this hand and I'm going to be okay and I don't seem as nervous as I was before.

The few women ( $n=6$ , 8.6%) whose answers about emotional well-being were coded as "no impact" gave explanations such as:

It really hasn't affected me.

Maybe it has [affected me emotionally] but I don't see it myself. Maybe it's because I'm an older woman and you sort of lose your vanity a little bit.

Just at times I'll look at myself and I'll say, 'Oh, wow, you're really lopsided.'

But it doesn't bother me at all.

Role Function Mode Responses. Examination of the transcripts from women whose answers about performance of usual activities were regarded as adaptive responses ( $n=35$ , 50%) revealed two contrasting themes. One theme focused on how support group participation helped some women to do more or to return to their usual daily activities:

I think it helped me because it showed me that the other people could do things, and if they could, I could, too.

It made me realize that I can do what ever I want to do and be a normal person again. It made me realize that I shouldn't feel sorry for myself. That I can go out and do anything that I want to do and that's what I did. I started going back and doing things that I normally did instead of being afraid to do them.

In contrast, the other theme focused on how support group participation helped other women to elect to perform fewer of their usual activities: "I realized that I can't do everything and it was okay that I couldn't do everything." "It helped me in terms of dealing with the chemo and dealing with the doctors and reassuring me that my life is not real normal at the moment and I need to take a little more time."

The large percentage of women ( $n=35$ , 50%) whose answers about performance of usual activities were coded as "no impact" gave explanations similar to this woman's: "I just went grocery shopping today, I drove the car, vacuumed. It really hasn't curtailed any of my physical activities."

Interdependence Mode Responses. Examination of the interview transcripts from women whose answers about relationships with family and friends were regarded as adaptive responses ( $n=46$ , 65.7%) revealed a theme that addressed the benefits of support group participation with regard to an improvement in relationships with their significant others:

What was one of the big positives that came out of it was setting aside a time for he and I to just make sure that we talk. We would listen to each other's feelings during the sessions but afterwards we would talk for two to three

hours. That kind of emotional support, fears that he had that he was uncomfortable expressing at first, fears that I had that I was uncomfortable expressing, we were able to get all that. It really brought us quite closer.

Another theme addressed the women's sense of knowing that they were not alone: "I knew that I could speak to someone about this and you don't feel so alienated. If I had problems I could say them out loud to somebody who had also experienced this."

Still another theme dealt with the improvement in the women's communication skills as a result of support group participation:

I think I learned to be a little bit better listener, using my listening skills a little bit. I try to listen to what people are really saying.

It helped me because I realized that I could talk about it with my family. In the beginning, every time I wanted to talk about it I'd cry but after I went to the first couple of meetings I got over that.

Yet another theme emphasized the forum provided by the support groups to vent their feelings:

I think [the support group] was tremendous because it allowed me to be verbal.

It felt like a burden was lifted through sharing.

Even though I knew a lot of the answers because I'm a registered nurse, it was just nice to be able to talk to somebody at the end of the day [who] could really understand where you were coming from.

The final theme focused on the utility of support group participation in helping the women to express themselves with family and friends outside the group: "I was always a quiet

person who would never speak my mind, and I just found that I can do that more easily now.”

“It taught me to let them realize my feelings rather to cover them up and always say that I was fine.”

The approximately one-third of women whose answers about relationships with family and friends were coded as "no impact" ( $n=24$ , 34.3%) made comments such as: “I think that I had a pretty good relationship and a lot of support right from the beginning.”

### Discussion

The interview data provided an opportunity to assess the support group participants' perspectives of breast cancer and the effects of a comprehensive, conceptual model-based nursing intervention. In contrast, the quantitative data obtained from the questionnaires reflected the nurse investigators' perspectives of relevant outcomes (Samarel et al. 1997). Within the context of the Roy Adaptation Model (Roy & Andrews 1991), both perspectives are important. The questionnaire data indicated that the women experienced largely adaptive responses from entry into the study through two months after the end of an eight-week cancer support group. The interview data enhanced understanding of the ways in which breast cancer and support group participation can contribute to adaptive physiological, self-concept, role function, and interdependence mode responses. The special value of the interview data was underscored by the informative themes found within each Roy model response mode. Physiological mode responses indicated that women found that receiving information about medical treatment, exercise, healthy lifestyle, and dealing with specific symptoms of treatment was particularly helpful. Within the self-concept mode, women expressed positive responses with regard to reduction of unpleasant emotional symptoms, downward comparison, feelings of normalization, opportunity to assist others, and finding something positive in the experience

of breast cancer. Role function mode responses indicated that the women were able to return to their usual activities if they desired, but that choosing to do less also was acceptable. Interdependence mode responses indicated that the women experienced improved relationships, felt that they were not alone with their illness, improved their communication skills, and were able to express themselves and vent their feelings.

Neither the interview data nor the questionnaire data, however, facilitated greater understanding of the effects of the social support and educational roles played by family, friends, and the media on adaptation to breast cancer. Further research is needed to separate those effects from the effects of specific nursing interventions, including comprehensive conceptual model-based cancer support groups.

The validity of content analysis studies is determined by the degree to which the assertion that "the finding does not depend upon or is generalizable beyond the specific data, methods, or measurements of a particular study" (Weber 1990 p. 18) is true. The validity of the results of the present content analysis is supported by similar findings of no differences in physiological, self-concept, role function, and interdependence mode responses in the questionnaire data (Samarel et al. 1997).

The possibility of socially desirable responses to the interview questions cannot be discounted. The interview data were, however, collected two months after the end of the support groups by project staff who had not been support group facilitators. Furthermore, the finding that many women indicated that breast cancer and support group participation had no effect on their physical functioning, emotional well-being, performance of usual activities, or relationships with family and friends suggests that they were not providing socially desirable responses.

A limitation of the study was the inability to separate responses to the questions about the effects of breast cancer and effects of study participation. Future research should be designed to better separate the effects of breast cancer diagnosis and treatment, per se, from the effects of support groups and other nursing interventions on physiological, self-concept, role function, and interdependence mode responses. The feelings of normalization expressed by some of the women who participated in the support groups warrant further exploration. Moreover, future research should include women of greater ethnic and educational diversity so that findings can be more readily generalized to the population of women with breast cancer.



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Table 1. Sample Demographic Characteristics and Cancer Treatment Variables (N = 70)

Variable		
AGE [M, range]	52.5	32-75
ETHNICITY [n, %]		
White	65	92.9%
Black	5	7.1%
EDUCATION [n, %]		
Less than high school	5	7.1%
High school	23	32.9%
College	34	48.5%
Graduate school	8	11.5%
EMPLOYED (outside home) [n, %]	38	54.3%
MONTHS SINCE SURGERY [M, range]	2.5	1-4
TYPE OF SURGERY [n, %]		
Lumpectomy	29	41.4%
Mastectomy	41	58.6%
CURRENT ADJUVANT THERAPY [n, %]		
Radiation	29	41.4%
Chemotherapy	37	52.9%

Table 2. Cancer Support Group Content (Adapted from Samarel & Fawcett, 1992)

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Session 1

- Overview of Breast Cancer: Epidemiology, diagnosis, treatments, psychosocial perspective

Session 2

- Dealing with Stress: Personal sources and manifestations of stress, stresses associated with breast cancer, methods of stress management, exercises designed to facilitate stress management

Session 3

- Dealing with Stress: Review and practice of stress management exercises
- Effective Communication I: Active listening, communicating effectively

Session 4

- Dealing with Stress: Personal experiences with and practice of stress management exercises
- Effective Communication II: Review of effective/ineffective communication, personal communication inventory, problem-solving, role-playing

Session 5

- Practice of Stress Management Strategy
- Day-to-Day Problem-Solving Methods
- Feeling Good: Eating and/or elimination patterns, mobility, prevention/management of symptoms

continued

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Table 2. Cancer Support Group Content, continued

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Session 6

- Practice of Stress Management Strategy
- Assessment of 'Feeling Good' strategies
- Feeling Good About Myself: Self-Image, sexuality, role

Session 7

- Practice of Stress Management Strategy
- Assessment of 'Feeling Good About Myself' Strategies
- Thinking Positively: Dealing with Fear: Types of fears, strategies to decrease fear

Session 8

- Developing a Personalized Plan for Effective Living
  - Community Resources
  - Summary and Review
  - Plans for Future Networking
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Table 3. Results of the Content Analysis (N = 70)

Variable	Percent
<b>Changes in Attitude Toward Breast Cancer</b>	
Nothing said/No information	8.6%
Worse	7.1%
No change	11.4%
Better or cured	72.9%
<b>Attitude Toward Study Participation</b>	
Negative	0%
Neutral	0%
Positive	61.4%
Very Positive	38.6%
<b>Physical Functioning Effects</b>	
Negative impact	0%
None	44.3%
Improved	48.6%
Much Improved	7.1%
<b>Emotional Well-Being Effects</b>	
Negative impact	0%
None	8.6%
Improved	72.9%
Much Improved	18.5%
<b>Relationships with Family and Friends Effects</b>	
Negative impact	0%
None	34.3%
Improved	62.9%
Much Improved	2.8%



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