Understanding Hope and Factors That Enhance Hope in Women With Breast Cancer

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Key Points . . .

➤ Hope can be a resource for coping.
➤ Hope, like some other emotions, is generated from thoughts about threatening situations.
➤ Women whose thoughts are characterized by beliefs that they can manage the potential problems and emotions associated with breast cancer treatment are more hopeful.
➤ Oncology nurse interventions for women in treatment for breast cancer related to enhancing self-esteem, strengthening social support, and supporting religious beliefs may be important for increasing women’s beliefs about the potential for coping and level of hope.

Hope has been conceptualized as an emotion (Lazarus, 1991; Rustoen, 1995; Smith & Ellsworth, 1985) and, as such, is an important coping resource for people experiencing difficult situations, including women requiring medical treatment for breast cancer. A link has been suggested between hope and health-related outcomes, such as subjective well-being, physical and social functioning, somatic health, and healthy lifestyles (Farrar, Herth, & Popovich, 1995; Lazarus; Rideout & Montemuro, 1986; Seligman, 1990).

In large part because of the demonstrated beneficial effects, hope commonly is viewed as a desirable emotion. Lazarus (1991) suggested that hope results from a unique pattern of thoughts and evaluations about a situation and is important for sustaining commitment to desired goals and coping. For example, thoughts and beliefs about the actual or potential significance of harms or losses associated with breast cancer may trigger stress emotions. In turn, stress emotions trigger various coping strategies to enable adjustment (Lazarus & Folkman, 1984). More specifically, hope-

The American Cancer Society (2001) estimated that a woman living in the United States has a 1 in 8 (12.5%) lifetime risk of developing breast cancer. During the course of diagnosis and treatment for breast cancer, women often experience actual or potential loss of independence, social mobility, and capacity to work and may experience pain, disfigurement, and death (Berger & Bostwick, 1998). These reasons led Hobfoll and Stephens (1990) to find that cancer often is appraised as a threat.
fulness has been suggested as a resource that fosters coping strategies that increase participation in treatment regimens and strengthen the belief that difficulties can be managed (Hinds & Martin, 1988; Lazarus; Lazarus & Folkman; Owen, 1989; Rustoen, 1995; Seligman, 1990).

The purpose of this article is to present findings related to hope and factors that influence hope in women with breast cancer at 1–3 months and 10–12 months postdiagnosis including (a) the influence of social support, self-esteem, and helpfulness of religious beliefs on thoughts and beliefs about breast cancer experience and (b) the relationship between social support, self-esteem, helpfulness of religious beliefs, women’s thoughts and beliefs about their breast cancer experience, and their level of hope. Data were collected from participants during two different time frames to comparatively observe the pattern of mean appraisal scores contributing to hope. Findings presented in this article were part of a larger study (Ebright, 1998) of factors related to appraisal, hope, and adjustment in women undergoing treatment for breast cancer.

Background
Appraisals, Emotion, and Hope

According to Lazarus’ (1991) Cognitive-Motivational-Relational Theory, each emotion has its own unique thought or appraisal pattern. Appraisal is the evaluation of what is happening in a situation and the significance of the situation to one’s well-being (Lazarus & Folkman, 1984). An appraisal pattern results from a person’s answers to specific questions derived from two types of appraisal. Primary appraisals include thoughts about what is at stake in the situation or whether the potential exists for harm or loss (motivational relevance) and how consistent the situation is with what one wants in the situation (motivational congruence). Secondary appraisals are related to thoughts regarding assignment of blame or credit for a situation (self-accountability and other-accountability), potential coping effectiveness in dealing with the situation (problem-focused coping potential and emotion-focused coping potential), and future expectations regarding the desired outcome (future expectancy). Lazarus proposed an appraisal pattern that included the following three appraisals relevant for the generation of hope: (a) the situation is very important to an individual (motivational relevance), (b) the situation has the potential to be incongruent with an individual’s goals (motivational incongruence), and (c) the situation involves uncertainty (future expectancy).

In addition to defining primary and secondary appraisal patterns related to emotions, Lazarus (1991) claimed that overall emotion themes were associated with appraisal patterns that capture the personal meaning of a given situation. In fact, each emotion can be identified uniquely by its own theme or meaning. For example, a theme summarizing the appraisal pattern for the emotion hope/challenge was suggested as “effortful optimism, potential for success” (Smith & Lazarus, 1990). Lazarus later proposed a theme for hope to be “fearing the worst yet yearning for better.” In other words, although having hope usually is viewed as positive, it is generated from a situation where the personal meaning involves the anticipation of a significant loss.

Factors Related to Hope

Although previous studies have varied in the conceptualization and measurement of hope, findings have suggested that social support (Foote, Piazza, Holcombe, Paul, & Daffin, 1990; Gibson, 1999), self-esteem (Foote et al.; Piazza et al., 1991), and spirituality or support from religious beliefs (Herth, 1989; Mickley, Soeken, & Belcher, 1992) are important for maintaining hope during illness. Qualitative researchers have reported recurring themes related to hope that are similar to the variables just mentioned. Moch (1990) described several themes emerging from a qualitative study of health within the experience of breast cancer that included getting information, making choices, coping, dealing with physical aspects and lack of control over recurrence, maintaining hope about prognosis and life, and finding meaning. In a study of men and women receiving active or supportive treatment for cancer, Post-White et al. (1996) found five recurring themes of hope that included finding meaning, affirming relationships, using resources, living in the present, and anticipating survival.

Interventions to Enhance Hope

Farrian et al. (1995) proposed a framework for guiding nursing interventions to enable hope and prevent hopelessness that included four main attributes of hope. The researchers described these attributes as processes characterized as experiential, relational, rational thought, and spiritual/transcending. Rustoen and Hanestad (1998) developed a nursing intervention to increase hope in a study of 131 adults with cancer who had been diagnosed in the previous year, which was tested by Rustoen, Wiklund, Hanestad, and Moun (1998). Participants were assigned randomly to either a hope support group, coping support group, or a control group that received hospital care and routine follow-up. The hope support group intervention focused on belief in oneself, emotional reactions, relationships with others, active involvement, spiritual beliefs and values, and acknowledging a future. The coping support group focused on learning to live with cancer. Support groups met for eight two-hour sessions. Mean hope scores in the hope group were significantly higher than hope scores in both the coping and control groups two weeks after interventions were completed. No significant differences in hope were found six months later. Rustoen et al. concluded that hope can be strengthened in newly diagnosed patients with cancer by nursing interventions.

Examining Thoughts Contributing to Hope

Understanding the difference in thoughts and appraisals that contribute to hope may provide the evidence base needed to support and refine proposed interventions for enabling hope and preventing hopelessness. Although Lazarus (1991) proposed a specific pattern of appraisals and emotion themes relevant for hope, no empirical studies were found that examined the pattern of appraisals and emotion themes associated with hope (i.e., hope in people with breast cancer or serious illness). Therefore, the current study measured the extent to which the pattern of appraisals and emotion theme for hope proposed by Smith and Lazarus (1990) and Lazarus differentiated the experience of hope in women undergoing treatment for breast cancer. Based on previous literature and research (Foote et al., 1990; Herth, 1989; Rustoen & Wiklund, 2000),
additional variables included in the current study to explore relationships with appraisal and hope were (a) social support or perception of having at least one close confiding relationship for the provision of social integration, assistance, nurturance, reassurance of worth, and intimacy (Weiss, 1974), (b) self-esteem or perception of self-worth (Rosenberg, 1979), and (c) helpfulness of religious beliefs or perception of the amount of support provided by religious beliefs (Brandt, 1987).

Methods

The following two research hypotheses guided the current study.

- Social support, self-esteem, and helpfulness of religious beliefs will influence how women appraise their experience with breast cancer.
- Social support, self-esteem, helpfulness of religious beliefs, and appraisal will influence levels of hope in women who experience breast cancer.

Sample and Procedures

Following institutional review board approval, a convenience sample of 73 women recently diagnosed with breast cancer was recruited through five midwestern physicians. Participation criteria included providing informed consent; having no previous diagnosis of cancer, current metastatic disease, or terminal illness; completing surgery for breast cancer; therapy including chemotherapy, radiation therapy, or tamoxifen; being at least age 18; and being able to speak and read English.

After the researcher explained the study purpose and procedures by telephone, women agreeing to participate in the study were mailed a self-report survey containing instruments for measurement of appraisals, hope, social support, self-esteem, helpfulness of religious beliefs, and demographics, along with a self-addressed, stamped, return envelope. Return of the surveys containing informed consent information in the cover letter constituted consent to participate in the study. Study participants were surveyed 1–3 months and again 10–12 months after surgery to compare the pattern of appraisals related to hope at two different periods in the course of treatment.

Instruments

Demographic data collected only on the first survey for description of the sample included age, marital status, education, income, type of postsurgical treatment, and type of surgical procedure. Information regarding whether women were currently in treatment was collected on the second survey.

Hope was measured using the Herth Hope Index (HHI) (Herth, 1992). Items were developed by Herth based on Dufault and Martocchio’s (1985) conceptual framework and divided over three subscales, including temporality and future, positive readiness and expectancy, and interconnectedness. The HHI consists of 12 four-point Likert-format items. Higher scores are indicative of more hope. The HHI has demonstrated face, content, and concurrent and divergent validity with adults who are acutely, chronically, or terminally ill (Herth, 1992). Cronbach’s coefficient alphas have been reported to be 0.91–0.97. Coefficients for the present study were 0.87 on the first survey and 0.90 for the second survey.

Appraisal was measured using the seven primary and secondary appraisal items proposed by Smith, Haynes, Lazarus, and Pope (1993). Smith and Lazarus (1993) described the items as having face validity (i.e., designed to measure the appraisals hypothesized to predict and discriminate emotions). The items used by Smith et al. were reworded by the current study’s researchers to solicit responses about recent and current thoughts regarding the specific experience of going through treatment for breast cancer. One additional item for each of the seven appraisals was developed to increase reliability, resulting in seven scales with two items each (see Table 1). Subjects were asked to rate the items in relation to their thoughts and feelings regarding their experiences over the past two weeks. Table 2 summarizes Cronbach’s coefficient alphas for each of the seven appraisals for the first and second surveys in the present study. All but the measure for motivational relevance were 0.62 or greater.

Emotion themes were measured using scales developed by Smith et al. (1993). Each of 15 nine-point scale items reflecting different emotion themes was rated for the extent it reflected subjects’ thoughts over the prior two weeks. Themes chosen for inclusion in the survey were based on content in themes previously proposed for hope (Lazarus, 1991; Smith & Lazarus, 1990) and included hope/challenge (optimism) and anxiety/fear (danger/threat). Each item was rated from 1 (not at all like my thoughts) to 9 (extremely like my thoughts). Total theme scores for hope/challenge and anxiety/fear were derived by summing the item scores for each theme and calculating the mean. As with the appraisal component instrument, Smith and Lazarus (1993) reported only face validity for the items. Lazarus reported internal consistency for the scales with alpha coefficients of 0.85 for hope/challenge and 0.71 for anxiety/fear. Coefficients for the present study for the first and second surveys were 0.79 and 0.80, respectively, for hope/challenge; and 0.81 and 0.84, respectively, for anxiety/fear.

Social support was measured by the Personal Resource Questionnaire (PRQ) 85-Part 2 (Weinert, 1987). The PRQ85-Part 2 consists of 25 items representing each of five dimensions of social support, including social integration, opportunity for nurturance, reassurance of worth, obtaining of guidance, sense of reliable alliance, and attachment. Respondents rated items on a seven-point Likert scale. Higher scores indicate perceptions of more social support. Weinert reported a Cronbach’s coefficient alpha of 0.87. Coefficients for the present study were 0.92 and 0.93 for the first and second surveys, respectively.

Self-esteem was measured using Rosenberg’s Self-Esteem Scale (RSE) (Rosenberg, 1979). Respondents rated the degree to which they agreed or disagreed with 10 items scored on a four-point Likert scale. Scores are calculated by summing 10-item ratings, with higher scores indicating a higher level of self-esteem. Rosenberg reported convergent and discriminant validity when the tool was used with college students. Used frequently in health-related research, reported scale reliabilities average 0.95, with test-retest reliabilities ranging from 0.85–0.86. Cronbach’s coefficient alpha for both surveys in this study was 0.87.

Helpfulness of religious beliefs was measured on a one-item, five-point Likert scale adapted from a study by Brandt (1987) and read, “To what extent are your religious beliefs helpful to you as you go through treatment for breast cancer?”
Conceptualizing hope as situation specific, researchers separately analyzed data from each of the first and second surveys. Principal components analysis with varimax rotation was conducted on the 14 appraisal items to summarize patterns of correlations among items for ease of interpretation and to reduce the number of variables for subsequent regression analyses. The following three appraisal factors were identified: (a) internal personal control (future expectancy, self-accountability, other-accountability), (b) potential for coping/influence (problem-focused coping potential, emotion-focused coping potential), and (c) significance (motivational relevance, motivational congruence). Factor scores were computed by summing the ratings of items that loaded together and were entered as separate appraisal variables in subsequent regression analyses. All variables entered into regression equations had bivariate correlations less than 0.70 (Tabachnick & Fidell, 1989).

Multiple regression analyses were performed to test the first hypothesis by exploring the relative contribution of social support, self-esteem, and helpfulness of religious beliefs to women’s appraisals about their breast cancer experiences. To test the second hypothesis and explore the influence of related variables and appraisals on hope, multiple regression analyses were performed with hope as the dependent variable and social support, self-esteem, and helpfulness of religious beliefs as independent variables.

### Table 1. Appraisal Components, Definitions, and Items

<table>
<thead>
<tr>
<th>Appraisal Component</th>
<th>Definition</th>
<th>Survey Items</th>
</tr>
</thead>
</table>
| Motivational relevance       | The extent to which an encounter touches a personal goal or whether something is at stake in the situation | • How important to you is the outcome of your treatment?  
• To what extent do you care about the outcome of your treatment? |
| Motivational congruence       | The extent to which a transaction is consistent or inconsistent with what one wants | • Think about what you would like to be happening in your life at this time. Considering the positives and negatives, to what extent are your experiences with breast cancer and treatment consistent with what you would like to be happening in your life at this time?  
• How similar are your experiences with breast cancer and treatment to what you want to be going on in your life at this time? |
| Problem-focused coping potential | Evaluation of whether and how one is able to act directly on a situation so that it meets one’s goals | • Think about what you want and do not want as you go through treatment for breast cancer. How certain are you that you can influence things to make or keep these experiences the way you want them to be?  
• To what extent do you believe there is something you can do to influence what happens to you as you go through treatment? |
| Emotion-focused coping potential | The extent to which one will be able to adjust psychologically in a situation by changing the way one interprets a situation or by changing one’s goals or beliefs | • How certain are you that you can deal effectively with your emotions about what is happening as you go through treatment for breast cancer, however it turns out?  
• To what extent do you think you will be able to manage your feelings related to breast cancer, treatment, and outcome? |
| Self-accountability           | The extent to which one’s self is blamed for harm or threat or given credit for the benefit in a situation | • To what extent do you consider yourself responsible for having brought about your breast cancer and need for treatment?  
• How much do you blame yourself for having to experience breast cancer and its treatment? |
| Other-accountability          | The extent to which someone else is blamed for harm or threat or given credit for the benefit in a situation | • To what extent do you consider someone or something else responsible for having brought about your experience with breast cancer and treatment?  
• How much do you blame another person or thing for your having to experience breast cancer and its treatment? |
| Future expectancy             | One’s judgment as to the potential for change in an event that may result in the event’s meaning to be more or less congruent with personal goals | • Think about how you want your treatment for breast cancer to turn out. How consistent are your wishes with how you really expect this situation to turn out?  
• To what extent do you believe your breast cancer and treatment will turn out how you want it to? |

Note. Based on information from Smith et al., 1993.
support, self-esteem, helpfulness of religious beliefs, appraisal factors, and emotion themes as independent variables.

Following analysis of hope score frequencies and analyzing differences between women with the most hope and those with the least hope, hope groups were created by assigning scores less than 38 to the lowest hope group, scores greater than 42 to the highest hope group, and scores 38–42 to the mid-hope group. Analysis of variance procedures were performed on hope groups for differences on the variables of appraisals and emotion themes, social support, self-esteem, and helpfulness of religious beliefs.

### Results

#### Descriptive Statistics

Table 3 contains sample percentages for each demographic variable. All participants were Caucasian, and more than 60% were 50 years of age or older. Most were married (73%), had more than a high school education (53%), and reported yearly household incomes greater than $50,000 (56%). The majority of women had lumpectomies (68%) versus mastectomies (32%). The type of postsurgical treatment varied; however, the most frequent treatment combination consisted of radiation, chemotherapy, and tamoxifen (26%). All participants who responded that they were currently in treatment at the time of the second survey (62%) were taking tamoxifen only and had completed chemotherapy and radiation therapy if previously prescribed. Table 4 presents means, standard deviations, possible score ranges, and study score ranges for variables for both surveys. Means and standard deviations for each of the appraisal factors were as follows for the first and second surveys, respectively:

- (a) internal personal control, \( \bar{X} = 7.23 \) (SD = 2.21) and \( \bar{X} = 8.29 \) (SD = 2.49);

- (b) potential for coping/influence, \( \bar{X} = 27 \) (SD = 6.92) and \( \bar{X} = 27 \) (SD = 6.75);

- (c) significance, \( \bar{X} = 5.66 \) (SD = 4.85) and \( \bar{X} = 8.16 \) (SD = 5.06). The internal personal control factor mean score changed slightly from the first to second survey, primarily reflecting increases in certainty about the future on the second survey. The appraisal factor significance increased on the second survey because of the increased congruence between what women were experiencing and what they wanted. The mean score for potential for coping/influence was stable, with a slight increase in emotion-focused coping potential and a slight decrease in problem-focused coping potential on the second survey.

Emotion theme scores indicated that anxiety/fear generally was not like the thoughts reported by women on either survey (\( \bar{X} = 3.77 \) and 2.88). Rather, thoughts about breast cancer experiences reflected hope/challenge (\( \bar{X} = 7.52 \) and 7.09) for both surveys.

Post hoc comparisons for both surveys indicated that compared to the lowest hope group, women in the highest hope group believed more strongly in the potential for coping and influencing whatever would happen and thought the experience was more like hope/challenge in meaning. On the second survey, women in the highest hope group also viewed the experience with less fear and anxiety.

#### Table 2. Cronbach's Coefficient Alphas for Cognitive Appraisal Component Items—First and Second Survey

<table>
<thead>
<tr>
<th>Appraisal Component</th>
<th>First Survey Alpha</th>
<th>Second Survey Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivational relevance</td>
<td>0.46</td>
<td>0.76</td>
</tr>
<tr>
<td>Motivational congruence</td>
<td>0.77</td>
<td>0.68</td>
</tr>
<tr>
<td>Problem-focused coping potential</td>
<td>0.80</td>
<td>0.63</td>
</tr>
<tr>
<td>Emotion-focused coping potential</td>
<td>0.67</td>
<td>0.62</td>
</tr>
<tr>
<td>Future expectancy</td>
<td>0.77</td>
<td>0.62</td>
</tr>
<tr>
<td>Self-accountability</td>
<td>0.78</td>
<td>0.84</td>
</tr>
<tr>
<td>Other-accountability</td>
<td>0.67</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Cronbach’s coefficient alphas for reliability of appraisal factors on each of the two surveys were 0.79 and 0.81 for internal personal control, 0.78 and 0.74 for potential for coping/influence, and 0.50 and 0.46 for significance. Means and standard deviations for each of the appraisal factors were as follows for the first and second surveys, respectively:

- (a) internal personal control, \( \bar{X} = 7.23 \) (SD = 2.21) and \( \bar{X} = 8.29 \) (SD = 2.49);

- (b) potential for coping/influence, \( \bar{X} = 27 \) (SD = 6.92) and \( \bar{X} = 27 \) (SD = 6.75);

- (c) significance, \( \bar{X} = 5.66 \) (SD = 4.85) and \( \bar{X} = 8.16 \) (SD = 5.06). The internal personal control factor mean score changed slightly from the first to second survey, primarily reflecting increases in certainty about the future on the second survey. The appraisal factor significance increased on the second survey because of the increased congruence between what women were experiencing and what they wanted. The mean score for potential for coping/influence was stable, with a slight increase in emotion-focused coping potential and a slight decrease in problem-focused coping potential on the second survey.

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Post hoc comparisons for both surveys indicated that compared to the lowest hope group, women in the highest hope group believed more strongly in the potential for coping and influencing whatever would happen and thought the experience was more like hope/challenge in meaning. On the second survey, women in the highest hope group also viewed the experience with less fear and anxiety.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 50</td>
<td>29</td>
<td>40</td>
</tr>
<tr>
<td>≥ 50</td>
<td>44</td>
<td>60</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal college</td>
<td>34</td>
<td>47</td>
</tr>
<tr>
<td>Formal college</td>
<td>39</td>
<td>53</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Married</td>
<td>53</td>
<td>73</td>
</tr>
<tr>
<td>Income per household annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $50,000</td>
<td>32</td>
<td>44</td>
</tr>
<tr>
<td>≥ $50,000</td>
<td>41</td>
<td>56</td>
</tr>
<tr>
<td>Type of surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lumpectomy</td>
<td>49</td>
<td>68</td>
</tr>
<tr>
<td>Mastectomy</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>Type of treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemotherapy only</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Radiation only</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Chemotherapy and radiation</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Chemotherapy and tamoxifen</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Radiation and tamoxifen</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Radiation, chemotherapy, and tamoxifen</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>Tamoxifen only</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Currently in treatment at time of second survey (all tamoxifen only)</td>
<td>45</td>
<td>62</td>
</tr>
</tbody>
</table>

N = 73
Hope groups were analyzed for specific primary and secondary appraisal patterns. In the first survey, women in the highest hope group differed significantly in their appraisals when compared to the lowest hope group because they believed to a greater extent that (a) the situation would turn out how they wanted it to (future expectancy) ($p < 0.05$), (b) they would be able to influence the situation (problem-focused coping potential) ($p < 0.0001$), and (c) they would be able to cope emotionally with the situation (emotion-focused coping potential) ($p < 0.001$). Significant differences were found between the groups for appraisals of other-accountability, self-accountability, motivational relevance, or motivational congruence.

Results Related to Hypothesis 1

Separate multiple regression analysis procedures were performed using each of the appraisal factors derived from the principal components analysis described previously. Multiple regression analysis was performed with the dependent variable of the appraisal factor internal personal control and the independent variables of helpfulness of religious beliefs and self-esteem. Social support was excluded because of low correlation with the dependent variable. Self-esteem contributed significantly to the prediction of internal personal control for the first but not the second survey.

Multiple regression analysis was performed with the dependent variable of the appraisal factor potential for coping/influence and the independent variables of social support, self-esteem, and helpfulness of religious beliefs. Self-esteem and helpfulness of religious beliefs contributed significantly to the prediction of potential for coping/influence on both surveys ($p < 0.01$). Results of multiple regression analyses using the appraisal factor significance as the dependent variable were not significant.

Results Related to Hypothesis 2

Multiple regression analyses with hope as the dependent variable resulted in the appraisal factor potential for coping/influence and self-esteem as significant contributors to the variation in hope for both surveys ($p < 0.001$). Social support was a third significant contributor to variation in hope on the second survey ($p < 0.001$).

In summary, the study sample included middle-aged, mostly married, Caucasian women with at least a high school education and above-average incomes. Hope scores were generally higher than previously reported hope scores of people with chronic or terminal illnesses. The pattern of appraisals regarding breast cancer experiences was consistent on the first and second surveys. Women’s thoughts about breast cancer experiences were reported as more hope/challenge and not anxiety/fear. Significant differences in appraisal were found between women with highest hope and women with lowest hope. Self-esteem contributed to variation in the appraisal factors internal personal control and potential for coping/influence. Helpfulness of religious beliefs accounted for variation in potential for coping/influence. Potential for coping/influence, self-esteem, and social support contributed to variance in hope.

Discussion

Findings from this study suggest that differences in thoughts and appraisals in women with breast cancer were influenced by self-esteem and helpfulness of religious beliefs. These findings are consistent with Lazarus’ (1991) Cognitive-Motivational-Relational theory in which he proposed that thoughts and appraisals are determined by attitudes, beliefs, intuitive theories, and self-concepts (e.g., self-esteem, religious beliefs). In addition, findings from the current sample suggest that thoughts and appraisals relevant for discriminating levels of hope are related to women’s beliefs about their potential for managing problems and emotions. Lazarus had not included these specific appraisals in the proposed set of relevant appraisals for hope which included motivational relevance, motivational congruence, and future expectancy. To the contrary, appraisals regarding the potential for harm or loss (motivational relevance) and whether the situation was consistent with goals (motivational congruence) did not vary among women in this study. Lazarus explained that some situations may be so threatening that most people will appraise these situations similarly despite their personal differences. Given the potential threats and actual circumstances associated with breast cancer, it is reasonable to state that most women would believe the situ-

Table 4. Variable Means, Standard Deviations, Possible Score Ranges, and Study Score Ranges for Both Surveys

<table>
<thead>
<tr>
<th>Variable</th>
<th>First Survey</th>
<th></th>
<th></th>
<th>Second Survey</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{x}$</td>
<td>SD</td>
<td>Possible Range</td>
<td>Actual Range</td>
<td>$\bar{x}$</td>
<td>SD</td>
</tr>
<tr>
<td>Perceived helpfulness of religious beliefs</td>
<td>7.78</td>
<td>2.14</td>
<td>1–9</td>
<td>1–9</td>
<td>7.79</td>
<td>1.94</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>32.60</td>
<td>4.26</td>
<td>10–40</td>
<td>22–40</td>
<td>32.36</td>
<td>4.31</td>
</tr>
<tr>
<td>Social support</td>
<td>148.60</td>
<td>17.74</td>
<td>25–175</td>
<td>56–174</td>
<td>144.36</td>
<td>21.55</td>
</tr>
<tr>
<td>Motivational relevance</td>
<td>17.55</td>
<td>1.45</td>
<td>2–18</td>
<td>10–18</td>
<td>17.22</td>
<td>2.48</td>
</tr>
<tr>
<td>Motivational congruence</td>
<td>5.79</td>
<td>4.72</td>
<td>2–18</td>
<td>2–17</td>
<td>8.57</td>
<td>5.00</td>
</tr>
<tr>
<td>Self-accountability</td>
<td>4.52</td>
<td>3.68</td>
<td>2–18</td>
<td>2–16</td>
<td>4.60</td>
<td>4.24</td>
</tr>
<tr>
<td>Other-accountability</td>
<td>4.64</td>
<td>4.43</td>
<td>2–18</td>
<td>2–18</td>
<td>4.41</td>
<td>4.12</td>
</tr>
<tr>
<td>Problem-focused coping ability</td>
<td>13.30</td>
<td>4.01</td>
<td>2–18</td>
<td>2–18</td>
<td>13.04</td>
<td>4.03</td>
</tr>
<tr>
<td>Emotion-focused coping ability</td>
<td>13.70</td>
<td>3.89</td>
<td>2–18</td>
<td>2–18</td>
<td>14.03</td>
<td>3.57</td>
</tr>
<tr>
<td>Future expectancy</td>
<td>15.53</td>
<td>2.83</td>
<td>2–18</td>
<td>2–18</td>
<td>15.03</td>
<td>3.00</td>
</tr>
<tr>
<td>Hope/challenge</td>
<td>45.14</td>
<td>7.85</td>
<td>6–54</td>
<td>20–54</td>
<td>42.47</td>
<td>9.30</td>
</tr>
</tbody>
</table>
ation was very important and not fitting with what they had wanted to happen, regardless of other antecedent variables. Another explanation might be that whereas Lazarus proposed a pattern of appraisals that differentiated hope from other emotions, the same pattern does not differentiate levels within hope itself. Because this study was concerned only with hope, the findings are relevant for understanding variation in hope.

In addition to variation in hope resulting from appraisal, differences in hope were determined by self-esteem throughout the first year of treatment and by social support later in the first year. This finding suggests that the need for social support continues, and may increase, as the time from surgery increases.

Findings from this study provide theoretical support for the recommended nursing interventions proposed by several authors to enable hope and prevent hopelessness in patients with cancer. For example, in all four processes of the guiding framework for strengthening hope proposed by Farran et al. (1995) are cognitive and behavioral interventions aimed at increasing the ability of patients to manage and cope with emotions and problems, encouraging participation of a social network, and providing time and strategies for finding meaning from the experience. Support group activities developed by Rustoen and Hanestad (1998) to increase hope were based on patients with cancer believing in themselves and their own ability and active involvement. Post-White et al. (1996) identified from patient interviews a theme of using resources related to increasing hope. In addition to interventions related to coping and self-confidence, the inclusion of family, friends, and social support resources are numerous in the literature.

Overall, women’s thoughts regarding their breast cancer experiences reflected emotion themes related to hope/challenge and did not reflect “fearing the worst, yet yearning for better,” as suggested by Lazarus (1991). These findings are consistent with other research on hope in women with breast cancer (e.g., Rustoen & Wiklund, 2000). Morse and Doberneck (1995) reported that breast cancer survivors managed fear by not revealing negative and fearful thoughts. This may explain why hope scores in this study were higher than those reported by Herth (1992) of people with a variety of acute, chronic, and terminal illnesses. Perhaps the lack of reported fear itself was a strategy for managing and coping.

Limitations

Findings in this study provide empirical support for continued use of Lazarus’ (1991) theory for research on hope. Whether differences in the appraisals of women in treatment for breast cancer found in this study would be consistent across different illness situations and people needs further study. Generalizability of the results is not appropriate to women in lower socioeconomic groups, with different ethnic and cultural backgrounds, or to men or children. Additional studies should be designed using larger samples to test the stability of appraisals in individuals across time and additional determinants of variability in appraisal. Furthermore, studies to confirm the reliability and validity of appraisal items used in this study should be conducted, given the alphas obtained that were below the acceptable level of 0.70 (Nunnally, 1978).

Implications for Nursing

The extent women in treatment for breast cancer believe that they will be able to manage problems associated with treatment and related issues and the extent they believe that they will be able to deal with their emotions appear to contribute to hope. Therefore, including focused assessments of women’s thoughts about the potential for coping may be important for the evaluation of how well women are maintaining hope during treatment. In addition, self-esteem, helpfulness of religious beliefs, social support, and the appraisals found in this study that contribute to hope lend support to proposed interventions (Farran et al., 1995) targeting three areas. First, oncology nurse interventions that strengthen women’s beliefs about the ability to manage and cope are important and include identifying and supporting strengths and emphasizing potential and not limitations, assisting with the development of attainable goals and encouraging flexibility, and encouraging celebration of each success. Second, interventions that strengthen inclusion of a social support network by women include encouraging closeness with others and asking for support, teaching significant others how to help sustain hope, and providing an environment where verification of perceptions is encouraged and supported. Finally, interventions that encourage women to use religious beliefs for increasing confidence in the potential for coping include facilitating a comfortable environment where support exists for expression of spiritual beliefs and practices and, as appropriate, making available human (e.g., chaplains) and material (e.g., bibles, music) resources for renewal of spiritual self and initiating referrals.

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References

Herth, K. (1989). The relationship between level of hope and level of cop-


