Exploring the Dreams of Women with Breast Cancer: Content and Meaning of Dreams

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Summary. This study examined the dreams of 34 women, (17 who had been diagnosed with breast cancer and 17 who had not) and the meaning of their dreams via dream interpretation. Results were compared between those with breast cancer and those without. As expected, the women with breast cancer had dream imagery that specifically reflected their waking day experiences in relevant ways. Furthermore, the significant difference between the two groups provides support for the continuity hypothesis of dreaming. The women with breast cancer had significantly more medical figures, torso imagery, pain, disease reference, and death imagery in their dreams. When examining the meaning of the dreams with dream interpretation, the women with breast cancer had meaning pertinent to their waking life such as insight about their disease, medical events and figures, fear, and death. The women without breast cancer interpreted their dream imagery mainly to be about their romantic relationships, future, stress, family, and friends. This research illustrates that dream imagery is specific and relevant for women with and without breast cancer, and furthermore, that they make meaning of their dream imagery in beneficial ways. Implications and future directions are discussed in relation to dream imagery, interpretation of imagery, and breast cancer.

Keywords: Dream content, Breast cancer, Dreams, Meaning

1. Introduction

Dreams directly relating to physical, mental, and emotional health have been recorded since the beginning of time (e.g. Van de Castle, 1994) and though early theories of health-related dreams and their meanings varied, these dreams were known to exist by Aristotle, Galen, the ancient Romans, Chinese, Egyptians, Hebrew, and others (Van de Castle, 1994). More currently, the scientific investigation of health dreams has included a more vigorous examination of dream content via content analysis. This statistical technique has been useful for exploring the nature of dream imagery related to waking day health, illness, and well-being (Brown & Donderi, 1986). A recent study found a direct connection between dream imagery and general health issues (King & DeCicco, 2007). For example, body parts, waking day pain, and diagnosis of illness were directly related to dream images. Findings from this study also supported the continuity hypothesis of dreaming (Hall & Nordby, 1972) which states that waking day events are reflected in dream images. Previous research findings clearly support the continuity hypothesis with empirical evidence on many domains (For examples, see Schredi, 2006; Schredi & Hoffman, 2003).

The recent study by King and DeCicco (2007) used content analysis while examining health in a very general way but to date, studies examining dream content in relation to specific illnesses are still rare.

Previous research has clearly linked dreams and illness in several ways. For example, Levitan and Winkler (195) linked dreams to asthma, hypertension, and colitis. Wood, Bootzin, Quan, and Klink (1993) also examined the link between dreams and asthma. Though studies on health, illness and dreams have been conducted, the use of detailed content analysis has been somewhat rare. The more recent literature such as the study by Heather-Greerer, Comstock and Joyce (1996) used content analysis of dreams to link the imagery to waking day symptoms in migraine sufferers. Since it has been found that illness is closely related to the dreaming mind (For examples see: Goelitz, 2007; 2001a; 2001b; Horton, 1998; King & DeCicco, 2007; Sabini & Maftly, 1981; Welman, 1992) continuing the investigations of this nature are both relevant and essential.

The second important feature of dreams is the discovery or meaning that is attributed to the dream imagery in terms of waking state cognition (DeCicco, 2009; 2007a; 2006; DeCicco & Higgins, 2009; DeCicco & King, 2007; Hill 2003; 1996; Ullman, 1996; 1979; Wadensten, 2009). It has been found that people believe their dreams to be important and meaningful (King & DeCicco, 2009) and, that the process of dream interpretation directly connects dream imagery to the dreamer’s life in relevant and meaningful ways (DeCicco, 2009; 2007a; 2007b; DeCicco & Higgins, 2009; Goelitz, 2007; 2001b; Wadensten, 2009). For example, it has been found that recovering alcoholics find meaning in their dream imagery related to their addiction, to their recovery, and to
past events directly related to their addiction (DeCicco & Higgins, 2009). University students report dream meaning to be related to school, romantic relationships, and to their emotions in relation to these two factors (DeCicco, 2007a; 2007b). Dream interpretation has been found to be a venue for self-exploration and for providing effective coping strategies (Hill, 1996; 2003). These past research findings imply that dream meaning is directly related to the cognition of the dreamer in terms of their own relevant waking life events. Further research into the meaning ascribed to dream imagery is certainly warranted.

One specific illness that has been found to be related to both dreams and dream interpretation is cancer (Cannici, Malcolm & Peek, 1983; Davidson, Feldman-Stewart, Brennenstuhl & Ram, 2007; Davidson, MacLean, Brundage & Schulze, 2002; Horton, 1998; Ward, Beck, Roscoe, 1961). Cancer patients are reported to suffer nightmares, negative imagery, negative emotions in relation to their dreams, and to have increased death imagery (Eigen, 2004; Goelitz, 2001a; 2001b; Ohaeri, Campbell, Ilesanmil, Ohaeri, 1998; Sabini & Maffly, 1981). Given these findings, studies examining the dreams from cancer patients are warranted, especially with content analysis (Domhoff 2005; 2000; 1999a; 1999b; Domhoff & Schneider, 1998) which will extend previous research by providing a more detailed examination of the dream imagery.

One purpose of the current study was to begin the process of content analysing the dreams of women with breast cancer and comparing them to an aged-matched sample of dreams from women without breast cancer. Since both gender and age have been shown to affect the content of dreams, only the dreams of women with breast cancer were examined and compared (Krippner & Weinhold, 2002; Van de Castle, 1994; Zadra, 2007) and compared to an age-matched sample.

The second purpose of this research was to examine the meaning attributed to dreams via dream interpretation. Past research on dreams and health has mainly focused on dream interpretation (Bonime, 1962; Boss & Kenny, 1987; Kramer, 2000; Kozomova & Wolman, 2006; Pessant & Zadra, 2004) since this has been found to aid in the recovery process with insight and understanding of one’s health issues. Dream interpretation has been used in treatment as part of a comprehensive therapy program or on its own (Beck, 1971; DeCicco, 2009; Newton & Caple, 1985). Dream interpretation has also been used with trauma patients and those suffering from post-traumatic stress disorder (Rothbaum & Mellman, 2001). Trauma-related stimuli regularly occur in the dreams of trauma sufferers while nightmares replay the trauma (Kuiken, Dunn & LoVerso, 2008; Najam, Mansoor, Kanwal & Naz, 2006; Rothbaum & Mellman, 2001). Green et al., (2000) has demonstrated that many of the symptoms experienced by PTSD sufferers are also experienced by cancer patients.

Past research has also examined dream interpretation in the recovery from trauma (Mellman, David, Bustamante, Torres & Fins, 2001; Punamaki, 1998; Punamaki, Ali, Ismaili & Nuutinen, 2005; Rothbaum & Mellman, 2001), and for nightmare treatment (Daniels & McGuire, 1998). It has also been explored in patients with depression and anxiety (Taylor, 2000), patients with addictions (DeCicco & Higgins, 2009; Flowers & Zweben, 1996; 1998; Wetter & Young, 1994), with neurogenic communication disorders (Laures, Jacqueline & Shisler, 2004), family attachment (Tener, 2004), fear and loss (Hill, et al., 2000), caring for the dying (Roberts, Wilkinson, Owen, Lub, & Van der Bijl, 1997), coping with stress (Picchioni, et al., 2002), and for aiding in the developmental process of fully becoming one's self (Miller, 2003; Wadensten, 2009).

Dream interpretation has been specifically explored with cancer patients in several different ways (Eigen, 2004; Goelitz, 2001a; Sabini & Maffly, 1981). Ohaeri, Campbell, Abiodun and Ohaeri (1998) examined the psychosocial concerns of 30 women with cervical cancer and 76 with breast cancer. They found that the most common worries were thoughts of death, insomnia, bodily concerns, fear of the illness, and negative dreams. Though they did not explore the dream images with content analysis, they report that dreams are a source of negativity for women with cancer. LeBaron, Fanurik and Zeltzer (2001) examined the hypnotic dreams of children with cancer and found dream reports to be more pleasant, and contain less fantasy and detail than children without cancer.

Dream interpretation has been implemented with cancer patients in several ways (Goelitz, 2001a; 2001b) and given that cancer patients report worry, fear of death, impairment of work efficiency, and negative dreams (Ohaeri, Campbell, Ilesanmil & Ohaeri, 1998), this is particularly important with this group. Studies have found that dreams can act as an effective vehicle for patients managing life-threatening illness.

The current study will extend previous research on the dreams and dream interpretation of cancer patients and non-cancer patients by exploring dreams via The Projective Method of Dream Interpretation (DeCicco, 2009; 2009a). The dream imagery and the meaning or discoveries from cancer patients will be compared to a matched sample from women without breast cancer in order to explore differences in imagery and discovery. This research will contribute to the much needed scientific inquiry on the dreams of women with breast cancer but also explore how people make meaning from their dreams (Pessant & Zadra, 2004).

2. Dreams, Psychological Health, and the Immune System

Cancer is a disease that is most often accompanied by psychological distress (Carlsson, Arman, Backman & Hamrin, 2005; Holland, 1996; Ross, Boesen, Dalton & Johansen, 2002). In turn, psychological distress has been directly linked to immune functioning and specifically, to immunosuppression (Cunningham, 2000; Kleicolt-Glaser, Robles, Heffner, & Glaser, 2002). This chain of events can be detrimental to the cancer patient in terms of coping with the illness and with the recovery process. Evidence for the effectiveness of psychosocial interventions for lengthening the lifespan of cancer patients, decreasing depression, increasing general well being, and increasing quality life have been found (Ross, et al., 2002). Given these findings, this suggests that cognitive processes that decrease psychological distress are an important component for coping with cancer and for the healing process.

Dream interpretation has been shown to directly decrease psychological distress when positive attributions are made (Crook, Lyon & Hill, 2004; Pessant & Zadra, 2004). Working with dreams can provide patients with a means for coping with issues around a life-threatening illness, can provide effective cognitive coping strategies, a means of dealing with nightmares and negative imagery, and act as a mechanism for self-exploration (Crook & Hill, 2003; Crook, Lyons & Hill,
2004; Daniel & McGuire, 1998; Hill, et al., 2000; Funkhouser, 1999; Goelitz, 2001a; Maggioni et al., 2003; Nicolo, Diana & Carratelli, 2003; Pesant & Zdra, 2004; Punamaki et al., 2005; Ullman & Zimmerman, 1979). The clinical applications and implications for using dream interpretation with cancer patients will also be explored in this study.

3. Hypotheses

1) Both women with and without breast cancer will have dream imagery specific to their waking day experiences (Cartwright, Agargun, Kirkby, & Friedman, 2006) as per the continuity hypothesis of dreaming (Goelitz, 2001a; 2001b; Ohaeri, Campbell, Ilesanmil & Ohaeri, 1998). For example, the dreams from women with breast cancer will have more references to their disease and illness whereas women without breast cancer will have more references to every-day events. The imagery between women with breast cancer and women without breast cancer will be significantly different.

2) The dream content of women with breast cancer is expected to be high in negative imagery (e.g. anger, aggression, fear) (Goelitz, 2001a; 2001b) and significantly greater than for women without breast cancer.

3) The meaning or discovery attributed to the dreams for women with breast cancer will be significantly different than the meaning for those without breast cancer (Eigen, 2004; Goelitz; 2001a; Sabini & Maffly, 1981). It is expected that the women with breast cancer will attribute their dream imagery to such things as their illness, treatment and relationships in association with cancer whereas the non-cancer group will have dream meaning related to every day events (DeCicco, & Higgins, 2009).

4) The fourth hypothesis is exploratory and will examine the possibility that The Projective Method of Dream Interpretation (DeCicco, 2009) can be an effective tool when working with women with breast cancer.

4. Methods

4.1. Participants

The participants were 34 women who volunteered for 1 of 2 dream workshops. 17 American women volunteered to participate in the study through a dream workshop (mean age of 56.0 years, SD = 10.66). These participants were in Stages 0 to 4 of the disease (6 in Stage 0, 5 in Stage 1, 4 in Stage 2, 0 in Stage 3, and 2 in Stage 4). The women were in a dream group where they participated in The Projective Method of Dream Interpretation (DeCicco, 2009) with a dream group leader. Fourteen of the women reported their ethnicity as Caucasian, 2 reported ethnicity as Black (African, Carribean, etc.), and 1 reported ethnicity as Afro-American-European. One of the women reported her education level as high school, 1 reported a law degree, 7 reported having a post-secondary education, and the remaining 8 reported having a graduate degree. Treatments for all participants ranged from chemotherapy, radiation, surgery, and “other treatments” such as tamoxifen and natural treatments.

Dream and discovery categories were analyzed and compared to an aged-matched sample of women who did not have breast cancer; 17 women (Mean age 54.3, SD = 10.45) who were community dwelling adults who participated in a dream workshop with The Projective Method (DeCicco, 2009) and volunteered one dream and discovery passage.

Sixteen of the women reported their ethnicity as Caucasian, and 1 reported ethnicity as Black (African, Carribean, etc.). Three of the women reported having a professional degree and 6 reported having a post-secondary education with the remaining 8 reported having a graduate degree.

4.2. Measures

The following information was asked on a demographics sheet: age, ethnicity, gender, type of cancer(s), stage for breast cancer, the number of different treatment types including chemotherapy, radiation, surgery (lumpectomy and mastectomy), other treatments, whether there was lymph node involvement (indicating a more serious form of the disease), and support group attendance.

4.3. Procedure

The women were recruited to participate in a dream workshop a local clinic (for breast cancer patients) or at a university (non-breast cancer patients). Workshop leaders conducted the workshops and asked the participants to volunteer in the study. Dreams and discovery passages were collected by workshop leaders. The data was then sent to research assistants for analyses; the research assistants were not involved in the workshops or in data collection.

Both groups of women completed a consent form and demographics sheet, and then were guided through The Projective Method of Dream Interpretation (DeCicco, 2009). All participants volunteered in the study.

4.3.1 The Projective Method of Dream Interpretation

(DeCicco, 2009)

The Ullman Method of Dream Interpretation (Ullman, 1976; Ullman & Zimmerman, 1979) is a common form of dream interpretation for groups. The method has been widely used both in therapy and in use with the general public (Ullman, 1976). The method has been tested and found to be practical and user-friendly while providing discovery in most cases (DeCicco, 2007b). The Ullman Method has since been revised and tested such that, it is simplified and leads to discovery with a higher rate (>80%) than the original method (DeCicco, 2009). The revised method is coined The Projective Method of Dream Interpretation (DeCicco, 2009).

4.3.2 Content Analysis (Hall & Van de Castle, 1996)

Following previous methodology, all dreams and discovery passages (DeCicco, 2007b) were analyzed using the Hall and Van de Castle (1966) system of Content Analysis. Content Analysis is a scoring system for dream content used to identify the frequency of a large variety of dream and discovery images, figures, actions, emotions, and conflicts. Content Analysis has been deemed reliable and valid by multiple studies (Krippner & Weinhold, 2002).

The categories to be scored were chosen based on the content from previous studies (King & DeCicco, 2007) and on content related to cancer such as baldness, needles, nausea, breast lumps, etc. Statistica 6.0 was used for all statistical analyses. All dream reports and discovery passages were scored for frequency by the Hall and Van de Castle (1966) guidelines for content analysis. That is, each occurrence of a dream theme or discovery theme was marked, counted, and summed, culminating in totals for
each category across all dreams (DeCicco, 2007). Inter-rater reliability was tested and found to be very acceptable at .90 (Spata, 2003). Following previous research methodology (Domhoff, 2000), only dreams with a word count between 50 and 300 were included in the study. Research assistants were given dreams and discovery passages to analyze and had no knowledge of which group they were coding.

5. Results

It was hypothesized that both women with and without breast cancer would have dream imagery specific to their waking day experiences (Cartwright, Agargun, Kirkby, & Friedman, 2006) as per the continuity hypothesis of dreaming (Goelitz, 2001a; 2001b; Ohaeri, Campbell, Ilesanmi & Ohaeri, 1998). This hypothesis was in fact confirmed. It was found that women with breast cancer were high in imagery of medical figures, medical events, disease reference, death, torso, anger, sadness, and pain (See Table 1).

Women with breast cancer had specific imagery relating to cancer and to the illness of others (e.g. mother with cancer). It appears that the imagery supports the continuity hypothesis of dreaming. When comparing the dream categories of women with breast cancer to those without breast cancer there were significant differences in imagery for the torso (t = 2.51, p < .01), references to death (t = 2.37, p < .05), pain (t = 2.27, p < .01), references to the disease (t = 2.76, p < .01). These findings imply that having breast cancer is directly related to the dreaming mind in that the illness itself and important cognitive and emotional factors relating to the illness will appear in dreams. The torso, medical figures such as doctors and nurses, pain, and references to death and cancer all appear significantly more in the dreams of women with breast cancer than in the dreams of women without breast cancer. The illness and the impact of that illness on the individual appear to significantly affect dreams and dream imagery. These findings imply that the physical illness of breast cancer affects dreams in a very important way.

A second important finding came from testing the meaning of dreams via dream interpretation and comparing these across the two groups. All 34 women reported finding meaning in their dreams with The Projective Method. As was expected, the meaning or discovery categories for the women with breast cancer were significantly different than for those without breast cancer (Table 2).

For the women with breast cancer, 73% of dream meanings reported to be directly related to their illness in some way. The women with breast cancer reported 39% of the dream meanings to be about their breast cancer. For example, “I feel the woman (in the dream) was me. That’s how I felt finding out I too had cancer. I was literally knocked to the floor.” In comparison, the women without breast cancer reported the largest portion of their dream meanings (27%) to be about their romantic relationships. For example, “I wondered if my marriage wasn’t getting boring and stale.” It appears that women with breast cancer dream about their illness and important factors surrounding the illness, but also, they can find relevant meaning in the illness via dream interpretation. Similarly, women without breast cancer find meaning in their dreams as the meaning is relevant to everyday events.

The second largest category of dream meaning for the women with breast cancer was medical events (12%) while the second largest category for women without breast cancer was family (10%). These findings also imply that dream interpretation can be very helpful for women with breast cancer as they can find important meaning in their cancer procedures and treatment through their dreams. An example of discovery of a medical event was: “The energy will come only when I am proactive and do something about the problem, nourishing myself drop by drop.”

The third largest category of dream meaning was death

### Table 1. Differences (t-tests) between dream categories for women with and without breast cancer.

<table>
<thead>
<tr>
<th>Dream Content</th>
<th>Cancer M</th>
<th>Cancer SD</th>
<th>Control M</th>
<th>Control SD</th>
<th>t =</th>
<th>p =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark colours</td>
<td>.37</td>
<td>.89</td>
<td>.18</td>
<td>.37</td>
<td>.95</td>
<td>.35</td>
</tr>
<tr>
<td>Medical Figures</td>
<td>.37</td>
<td>.60</td>
<td>.05</td>
<td>.23</td>
<td>1.15</td>
<td>.03</td>
</tr>
<tr>
<td>Medical Conditions</td>
<td>.06</td>
<td>.24</td>
<td>.00</td>
<td>.00</td>
<td>.33</td>
<td>.74</td>
</tr>
<tr>
<td>Apprehension</td>
<td>.26</td>
<td>.55</td>
<td>.03</td>
<td>.22</td>
<td>1.51</td>
<td>.14</td>
</tr>
<tr>
<td>Sadness</td>
<td>.05</td>
<td>.22</td>
<td>.11</td>
<td>.45</td>
<td>-.44</td>
<td>.65</td>
</tr>
<tr>
<td>Confusion</td>
<td>.15</td>
<td>.37</td>
<td>.21</td>
<td>.42</td>
<td>-.41</td>
<td>.69</td>
</tr>
<tr>
<td>Happiness</td>
<td>.11</td>
<td>.32</td>
<td>.21</td>
<td>.42</td>
<td>-.88</td>
<td>.39</td>
</tr>
<tr>
<td>Misfortunes</td>
<td>.11</td>
<td>.31</td>
<td>.05</td>
<td>.23</td>
<td>.59</td>
<td>.19</td>
</tr>
<tr>
<td>Torso</td>
<td>.58</td>
<td>.77</td>
<td>.11</td>
<td>.32</td>
<td>2.50</td>
<td>.02</td>
</tr>
<tr>
<td>Lost</td>
<td>.05</td>
<td>.00</td>
<td>.23</td>
<td>.00</td>
<td>1.00</td>
<td>.32</td>
</tr>
<tr>
<td>Pain</td>
<td>.58</td>
<td>.69</td>
<td>.10</td>
<td>.32</td>
<td>2.72</td>
<td>.01</td>
</tr>
<tr>
<td>Death</td>
<td>.42</td>
<td>.69</td>
<td>.05</td>
<td>.23</td>
<td>2.20</td>
<td>.03</td>
</tr>
<tr>
<td>Disease Reference</td>
<td>.79</td>
<td>1.03</td>
<td>.10</td>
<td>.31</td>
<td>2.76</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. Bold are significant values.
and dying for the women with breast cancer (11%) and the future (8%) for women without breast cancer. This finding implies that women with breast cancer can make meaning of the possibility of death through dream interpretation. The fourth and fifth largest categories for dream discovery were related to medical figures (6%) and fear (5%) for breast cancer patients while friends (8%) and stress (6%) were reported for non-cancer patients. Again, it appears that dream interpretation for cancer patients is relevant and meaningful in terms of medical figures associated with the illness (e.g. “I put myself in other’s hands and I don’t feel safe with what they’ve done to me.”) and in understanding the fear that may accompany the illness (e.g. “The dream seems to be telling me to trust that things will work out all right in the end”). The women without breast cancer continue to report meaning relevant to every-day events. Examples are: “I need to spend more time with my husband” and, “My coworkers are not as bad I think they are.”

Given that the majority of discovery categories for the women with breast cancer were directly related to cancer and issues surrounding cancer, The Projective Method of Dream Interpretation may be helpful for providing insight and possibly, providing a mechanism for decreasing distress. Dream meanings were skewed toward resolutions, positive reframing, acceptance, and coping strategies for 88% of the dreams. Such meanings as “Fishing in the dream teaches me to be optimistic and hopeful. It is educational, joyful and positive.” Also, “I now have the time and opportunities to work on body, mind, and soul. To rebuild my life.” The high percentage of dreams revealing discovery in this way for women with breast cancer suggest that the method is useful in a positive way. Overall, the method appears to be useful for helping patients deal with the major issues of cancer, treatment, medical figures, fear, and the possibility of death. Further research is certainly warranted in terms of dream interpretation and the possibility of decreasing distress for both women with and without breast cancer.

### 6. Discussion

When examining the dreams and discovery categories for women with breast cancer via content analysis many important findings emerged. Consistent with previous research (Goelitz, 2001a), the women with breast cancer had dreams with negative imagery and negative emotion. For example, they report fear, sadness, confusion, misfortunes, apprehension, and being lost in dreams. Consistent with the continuity hypothesis (Goelitz, 2001a; Ohaeri, Campbell, Ilesanmil, Ohaeri, 1998) the dreams of women with breast cancer are specifically related to their waking day experiences (Cartwright, Agargun, Kirkby, & Friedman, 2006). These women had dream imagery related to their disease, the torso, medical events and personnel, and pain.

When comparing the dream imagery of women with breast cancer to the women without breast cancer, the imagery was significantly different in several important ways. The women with breast cancer had significantly more disease references, pain, death imagery, medical figures, and imagery of the torso than did the women without breast cancer. These findings support several hypotheses of this study and confirm previous findings that the dreams of women with breast cancer represent their waking day life circumstances (Cartwright, Agargun, Kirkby, & Friedman, 2006; Goelitz, 2001a; 2001b).

As expected, the major discovery categories for the women with breast cancer were very different than those without breast cancer (Eigen, 2004, Goelitz, 2001a; Sabini & Maffly, 1981). The women without breast cancer had major discovery categories of everyday concerns such as romantic relationships, future, family, friends, and stress. These discoveries appear typical for community dwelling adults who do not report any major health issues (For examples see DeCicco & Higgins, 2009; DeCicco, 2007b). Given that cancer patients report worry, nightmares, negative imagery, negative emotions, and death imagery (Eigen, 2004; Goelitz, 2001a; 2001b; Ohaeri, Campbell, Ilesanmil, Ohaeri, 1998; Sabini & Maffly, 1981) helping them work with their dreams appears to be very important. The findings from this study shed light onto the fact that the interpretation of dreams for women with breast cancer can be helpful and directly related to issues surrounding the illness itself such as death and fear.

There are several limitations to this current research that must be addressed. The first is that gender differences do affect dreams and therefore, only the dreams of women were studied (Krippner & Weinhold 2002). Also, only breast cancer in women was examined in this study. Further research needs to examine both other forms of cancers (e.g. colon, prostate, stomach, lung, etc.) as well as gender differences in dreams as related to cancer. Another limitation is that only North American women participated in the study, which may add cultural differences. The research on cultural differences and dreams is still limited so this should be studied further, especially with respect to cancer and cancer treatments.

Finally, now that the link among cancer, dreams, and dis-
covery has been made, future studies need to extend this research in terms of waking day distress and the possible role that dream interpretation may play in decreasing that distress. This next step would benefit cancer patients, expand the literature on dreams and discovery, and contribute further to the role of dream interpretation in counselling and clinical psychology.

References


