Breast Cancer Survivors and Well-Women: A Comparison of Depression, Anxiety, and Health Locus of Control

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Abstract

Naus and her colleagues (Naus, Price, & Peter, in press) have recently explored the relationship between health locus of control, depression, and the anxiety levels of middle-aged women who have survived breast cancer. However, little research has examined the differences in these measures between breast cancer survivors and healthy controls. The present study compared breast cancer survivors and age-matched well women on psychological factors as health locus of control, anxiety, and depression. The sample consisted of 60 female breast cancer survivors previously diagnosed with stage I or II breast cancer who were compared with 60 well women (defined as women who had not had breast cancer) matched by age and ethnicity. T-tests yielded significant differences between the two groups on depression (t(118) = -2.15, p < .05), and powerful others (t(118) = -10.26, p < .001), and higher beliefs in the control of powerful others health locus of control for the breast cancer survivors than well women controls.

Hypotheses

H1. Breast cancer survivors report higher levels of anxiety than controls.

H2. Breast cancer survivors report higher levels of depression than controls.

H3. Controls report higher levels of health internal locus of control than breast cancer survivors and breast cancer survivors report higher levels of chance and powerful others health locus of control than well women controls.

Method

Participants

A community sample of 60 female breast cancer survivors Stages I and II Ages ranging from 35-70, with a mean age of 54.13 (SD = 7.15) Mean years since diagnosis 6.97 (SD = 7.15) Primarily Caucasian, although the sample included a small percentage of African American and Hispanic women

Control group of middle-aged and older women who have not had breast cancer Matched to breast cancer survivors for ethnicity Matched to breast cancer survivors for age range, with a mean age of 55.32 (SD = 3.71) Naus, Ishler, Robinson, Lewis, Chapman, & Carr (2004) established that menopausal status is included in age-based matching in samples of middle-aged and older women.

Procedure

This study included participants from a large, ongoing project by the Health Psychology Research Group at the University of Houston investigating the self-reported emotional and psychological well-being of breast cancer survivors and middle-aged and older women who have not had breast cancer.

Self-report questionnaire packets were mailed to participants' homes, completed and returned at their convenience. The questionnaire packet included various instruments used to measure emotional and physical wellness.

Measures

Health Locus of Control - Multidimensional Health Locus of Control Scale (MHLOC). Form C, was used for the breast cancer survivors. It is a measure of individuals' beliefs over the control they have over their specific disease (pertaining to their breast cancer experience). It contains four subscales: Internal, Chance, Doctors and Other People (Wallston, Stead, & Smith, 1994). For the controls, the MHLOC form A was used. This is a measure of individuals' beliefs over their health, which was designed specifically for use with non-disease specific groups (Wallston, Wallston, & DeVille, 1978). Since the MHLOC form A has three subscales (Internal, Chance, and Powerful Others), ‘Doctors’ and ‘Other People’ were combined for the breast cancer survivors.

Anxiety - Beck Anxiety Inventory (BAI) was developed to emphasize physiological symptoms of anxiety and differentiate anxiety from depression (Beck & Steer, 1990). Higher scores indicated higher anxiety.

Depression - Center for Epidemiological Studies - Depression scale (CES-D) was used to evaluate levels of depression (Radloff, 1977). A score of 16 or higher indicates that an individual may have experienced some depression during the past week.

Results

Table 1 presents the means, standard deviations, and t-test scores for both the breast cancer survivors and the well women controls on anxiety, depression, internal health locus of control, chance health locus of control, and powerful others locus of control. The results of these analyses showed that although both groups reported low levels of depression, there were significant differences between the two groups with survivors reporting less depression (t(118) = -16.53, p < .001), and higher beliefs in the control of powerful others health locus of control (t(118) = -9.75, p < .001) than the well women comparison group. These data are shown in Figures 1 and 2.

Summary and Future Research

Both middle age and older breast cancer survivors and well women controls report sub-clinical levels of depression and anxiety. It should not be assumed that just because a woman is a breast cancer survivor that she'll display high levels of anxiety and/or depression.

In this study, we found no difference between the breast cancer survivors and the well women controls in their reported levels of anxiety or the degree to which they control their health.

These results suggest that survivors report lower depression levels, have a lower internal locus of control, and report a higher belief in the control of powerful others than matched controls. These correlations provide evidence to suggest that the sample size was sufficient to detect differences between the two groups.

Breast cancer survivors are likely to have different ideas than well women about who has power over their health. Perhaps the stronger internal health locus of control among breast cancer survivors reflects the belief that they can exercise control over their disease through personal choices of treatments, physicians, and social support.

This study provides support for including relevant control groups when examining psychological factors in breast cancer survivors or other health related disorders. Future research on matched control groups can help to discriminate whether the found psychosocial effects are due to the illness, or are part of natural developmental changes for middle-aged and older women.

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 References


