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Psychosocial correlates of benefit finding in breast cancer survivors in China

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Abstract

Breast cancer is number one in incidence and sixth in mortality among all cancers of women in China. Prior work identified positive consequences following diagnosis and treatment, including benefit finding among breast cancer survivors from Western countries. This study evaluated psychosocial correlates of benefit finding in breast cancer survivors in China. A total of 148 participants completed measures of coping, perceived stress, depressive symptoms, social support, and benefit finding. Results indicated that benefit finding was positively related to active coping and negatively related to depression. Future research may evaluate whether interventions to enhance active coping will improve outcomes among Chinese breast cancer survivors.

Keywords

breast cancer; cancer survivors; Chinese; psychosocial; women's health

Introduction

Breast cancer is one of the most prevalent malignancies among women worldwide (Jemal et al., 2011). Although the incidence of breast cancer is relatively low in China compared to Western countries, data indicate that incidence rates have been rising sharply in China in recent years (Chen et al., 2013; Zeng et al., 2014).

Breast cancer is ranked number one in incidence and sixth in mortality among all cancers of women in China (Chen et al., 2011). Although advances in treatment have increased 5-year survival rates and many breast cancer survivors can expect to live a prolonged life, a number of studies involving breast cancer survivors have reported decrements in quality of life associated with the cancer experience, including psychological distress symptoms such as anxiety, depression, feelings of social isolation, and fear of cancer recurrence (Stanton et al.,

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2002; Stanton and Snider, 1993). A study of Chinese women with breast cancer reported that 50 percent of women experienced prolonged psychological distress for years following diagnosis (Lam et al., 2007).

In contrast, a growing body of literature conducted in Western countries documents the positive life changes that many cancer survivors associate with their illness experience (Stanton et al., 2006). To characterize these positive perceptions, a variety of terms including posttraumatic growth, stress-related growth, positive growth, and benefit finding have been used, which refer to a similar concept: that individuals struggling with highly adverse experience such as cancer can report both positive and negative consequences (Tedeschi and Calhoun, 2004a). In particular, studies of US women have found that breast cancer survivors report certain benefits following treatment including the development of closer ties to family and religion and gaining a more positive outlook on life (Northouse et al., 1995; Stanton et al., 2002). Breast cancer survivors in the United States have also reported improvements in social relations, a greater appreciation for life, a changed sense of priorities, a greater sense of personal strength, and beneficial spiritual changes (Cordova et al., 2001; Manne et al., 2004; Tomich and Helgeson, 2004; Urcuyo et al., 2005). Benefit finding may relate to improved quality of life and health outcomes via pathways involving adaptive coping or greater social support (Tedeschi and Calhoun, 1995, 2004b). This is consistent with general stress-coping theories that recognize cognitive and behavioral coping strategies to be fundamental in the adaptation to a stressful event (Folkman and Moskowitz, 2000; Lazarus and Folkman, 1984). Indeed, several studies of Western women have reported that specific active coping strategies, including positive reframing and acceptance (Bussell and Naus, 2010; Sears et al., 2003; Silva et al., 2012), problem-focused coping (Buyukasik-Colak et al., 2012), humor (Silva et al., 2012), active and planning coping techniques (Bellizzi and Blank, 2006; Lelorain et al., 2012), and religious coping (Bussell and Naus, 2010; Gall et al., 2011; Lelorain et al., 2012) were associated with positive growth. In contrast, avoidant coping strategies, such as denial and behavioral disengagement, were not significantly associated with women's positive growth (Urcuyo et al., 2005). Among Hong Kong Chinese cancer survivors, a positive coping attitude was associated with more positive growth and avoidant coping not significantly related to positive growth (Ho et al., 2004).

A number of studies have demonstrated that the more cancer was appraised as stressful, the greater the extent of positive growth that was reported (Cordova et al., 2001, 2007). For example, in the Hong Kong Chinese cancer survivor study, Ho et al. (2004) found that positive growth was negatively related to anxiety and depression. In a longitudinal study, Liu et al. (2014) observed a weak negative association between positive growth and psychological distress over time among early stage breast cancer survivors in Beijing, China. However, some studies conducted in the United States have reported no significant associations between positive growth and perceived stressfulness of the breast cancer experience (Manne et al., 2004; Weiss, 2004). Furthermore, among Malaysian cancer patients, Schroevers and Teo (2008) found that the experience of positive growth was not significantly related to the level of psychological distress. It may be that the social support and social resources available to a person experiencing a trauma plays an important role in contributing to an individual's ability to experience positive benefits from a traumatic event (Tedeschi and Calhoun, 1995). Several Western studies have reported that multiple aspects

of social support have a significant relationship with posttraumatic positive growth (Bozo et al., 2009; Svetina and Nastran, 2012; Weiss, 2004). Specifically, individuals who have more social resources tend to be more likely to utilize active or approach coping strategies, which then lead to better adjustment to the stressful event. In contrast, other studies conducted in the United States reported no association between social support and post-traumatic positive growth (Cohen and Numa, 2011; Cordova et al., 2001; Weiss, 2004). Given cultural differences in the utilization of social support for coping with stress in general (Taylor et al., 2004) and across models of breast cancer survivorship more specifically (Ashing-Giwa et al., 2004; Coreil et al., 2012; Wen et al., 2014), associations among positive growth, negative psychological distress, and social support among Chinese women with breast cancer warrant further exploration.

Despite the significant amount of research on benefit finding in breast cancer populations in Western countries, however, relatively little is known about the experience of breast cancer patients in China. There are significant differences in education, culture, social, and lifestyle factors between women in China and Western countries. In particular, the predominant type of coping employed by Chinese women with breast cancer is problem-focused active coping strategy (Li and Lambert, 2007). This may be due, in part, to a Chinese cultural emphasis that one should always work hard and have a “constantly striving spirit” (Leung, 2010). Furthermore, Chinese culture and social norms place a high value on handling negative effect with restraint and other conservative and moderate traits. As a result, Chinese breast cancer patients are likely to employ self-control in dealing with physical, psychological, and social concerns (Lu et al., 1993).

Adaptive coping may, in turn, contribute to benefit finding among newly diagnosed breast cancer women in China, as observed in a recent study by Wang et al. (2015a). Over time, benefit finding predicted fewer depressive and anxious symptoms among Chinese breast cancer patients from diagnosis to 6 weeks postdiagnosis (Wang et al., 2015b). This study sought to extend the literature by characterizing benefit finding among breast cancer survivors during the early survivorship period in China. At present, there is limited empirical literature to describe the experience of cancer survivorship after the completion of primary medical treatments (Stanton, 2012). Therefore, focusing on early survivorship in this study will provide information to guide the development of evidence-based psychosocial care that can be offered to Chinese breast cancer survivors at treatment completion or later to promote longterm survivorship outcomes. Thus, the aim of this study is to investigate the extent to which coping strategies, psychosocial distress (perceived stress and depression), and social support were associated with benefit finding. First, based on prior studies (Ho et al., 2004; Liu et al., 2014), we hypothesized that the majority of our participants would report experiencing benefit finding. Second, we hypothesized that active coping would be positively associated with benefit finding. No significant associations were expected between avoidant coping and benefit finding. Third, we explored the relationship between benefit finding and perceived stress, depression, and social support in Chinese breast cancer survivors.

Methods

Participants and recruitment procedures

This study was approved by Temple University's (TU) Institutional Review Board and represented an international research collaboration between the Center for Asian Health (CAH) at TU and the Nanjing Cancer Survivors Association (NCSA) in China. As a joint effort through the pooling of resources, the CAH offered guidance in protocol development and research methods, and the NCSA played a central role in study implementation including participant recruitment and data collection. In addition to the onsite training by the principal investigator (PI; Dr Ma), regular conference calls were conducted between the research team members of TU-CAH and NCSA to collaboratively discuss study design, review recruitment progress, and interpretation of the findings. Patient eligibility criteria included (1) completed treatment for early stage breast cancer (stages 0–III), (2) age 21 years or older, (3) be no more than 6 years post-treatment (because this study focused on early survivorship phase), (4) no other history of cancer, and (5) able to provide informed consent. A convenience sampling approach was used to recruit breast cancer survivors through NCSA's community outreach events, newsletters, and survivor support groups. Eligible women who were interested in participating were provided with a consent form and self-administered questionnaire to return in a self-addressed sealed envelope. Study participation was voluntary without compensation. A total of 148 women participated in the study. The majority of study participants were NCSA members. Data collection occurred over a 6-month period from September 2013 to March 2014.

Measures

Demographic and disease-related variables.

Participants provided demographic information including age, marital or relationship status, employment status, annual household income, insurance status, and years of formal education completed. Disease-related characteristics included cancer stage, type of treatment received, time since treatment completion, and follow-up care status.

Benefit finding.

A six-item instrument adapted from the Benefit Finding Scale was used (Urcuyo et al., 2005). The statement for each item is "Having breast cancer ...," followed by a potential benefit gained from the experience. The scale includes items such as "has led me to be more accepting of things" and "has brought my family closer together." Items were scored on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), and the mean across all items measured total benefit finding. The final selection of the Benefit Finding Scale items was based on the feedback and pilot testing with the NCSA's advisors and patient focus groups to ensure its cultural relevance and appropriateness (see Table 1 for the included items). In the present sample, the six-item Benefit Finding Scale showed excellent internal consistency (Cronbach's $\alpha=0.80$).

Perceived stress.

The Perceived Stress Scale is a standardized, self-report questionnaire used to determine the extent to which a person perceives her or his life to be unpredictable, uncontrollable, and overwhelming (Cohen et al., 1983). The 14-item version was used for this study. Examples of the questions include the following: “How often have you felt nervous or stressed?” and “How often have you felt confident about your ability to handle your personal problems?” Women rated how often they experienced the above feelings in the past month on a 5-point Likert scale ranging from 0 (never) to 4 (very often). Total scores range from 0 to 56, with higher scores indicating greater overall stress. In the present sample, coefficient alpha reliability was 0.80.

Coping.

Coping skills were assessed using the Brief COPE scale (Carver, 1997), a 28-item coping inventory. Participants rated how often they employed a particular strategy as a way of coping with their stress from the cancer experience (1=I have not been doing this at all to 4=I have been doing this a lot), with higher scores indicating greater use of that particular coping strategy. The brief COPE has previously been validated in Chinese populations (Wang et al., 2007). In this study, only the scales capturing problem-focused active coping and avoidant coping were used. Based on previous research (Marroquin et al., 2010; Sanders et al., 2010; Thornton et al., 2012), we created a composite score of active coping by averaging across all items from the two COPE subscales: coping through planning and active coping efforts (four items, $\alpha=0.70$ in this study). Avoidant coping was assessed using the mean of items from the behavioral disengagement and denial subscales (four items, Cronbach's $\alpha=0.70$ in this study).

Social support

Social support was measured using the eight-item Duke-UNC Functional Social Support Questionnaire (FSSQ; Broad-head et al., 1988). Participants were asked how strongly they agreed with statements such as “I have people who care what happens to me” and “I have chances to talk to someone I trust about my personal and family problems,” with responses on a Likert scale ranging from 5 (as much as I would like) to 1 (much less than I would like). The mean of all items was computed to derive the overall score, with the higher scores reflecting higher levels of social support. Good internal consistency was observed with the FSSQ in this study (Cronbach's $\alpha = 0.90$).

Depressive symptoms.

The Patient Health Questionnaire (PHQ) was the first self-reported questionnaire specifically designed for use to establish psychiatric diagnoses (Kroenke et al., 2001). Due to its diagnostic validity and ease of scoring, the PHQ nine-item depression module has become widely used in both clinical practice and research. The PHQ consists of one item for each of the nine criterion: (1) anhedonia, (2) depressed mood, (3) trouble sleeping, (4) feeling tired, (5) change in appetite, (6) guilt or worthlessness, (7) trouble concentrating, (8) feeling slowed down or restless, and (9) suicidal thoughts. A 4-point scale from 0 (not at all) to 3 (nearly every day) indicates degree of severity. Severity ratings were summed across

each item to create an overall score, which was used as a continuous variable in the subsequent analysis. The PHQ was validated with Chinese populations (Yeung et al., 2008). (Cronbach's alpha = 0.78 in this study).

Statistical analysis

Descriptive analysis was used to describe the sample characteristics and prevalence of benefit finding. Because a shortened version of the Benefit Finding Scale was used, a principal component analysis was first conducted to evaluate the unidimensional nature of the construct. Next, to identify potential covariates for inclusion in the regression model, correlation and analysis of variance procedures were conducted to determine associations of demographic and disease-related variables with benefit finding. Finally, multivariate linear regression analysis was performed to examine associations of coping, perceived stress, depressive symptoms, and social support (independent variables) with benefit finding (dependent variable).

Results

Participant characteristics and descriptive data

Participants were, on average, 54 years old and predominantly married (91%), had completed a high school degree (67%), retired (70%), with an annual household income less than 60K RMB (equivalent to US\$9645; 89%), and had health insurance (98%). China's National Bureau of Statistics categorizes the Chinese middle class as households with an annual income ranging from 60K to 500K RMB; therefore, the majority of participants in this study were from relatively low-income households in China (Yuan et al., 2011). Furthermore, the majority of participants were diagnosed with stage II breast cancer (64%), had completed both surgery and chemotherapy (89%), were within 1–3 years posttreatment (51%), and were being seen every 6 months for follow-up care (78%). Participants reported relatively high levels of benefit finding ($M=4.1$, standard deviation (SD) = 0.4). The perceived stress score correspond to a moderate degree of stress (sum=25.4, SD = 6.7). Active coping ($M= 3.0$, SD = 0.7) was endorsed more frequently than avoidant coping ($M= 1.9$, SD = 0.8). The mean score on the FSSQ was 2.4 (SD = 0.9), suggesting low-to-moderate levels of perceived social support. On the PHQ, the mean depressive symptoms score was 5.9 (SD = 3.7), suggesting a degree of mild depression (Table 2).

Prevalence of benefit finding

To examine participant experiences, each item was examined individually. Participant responses of 4 (agree) and 5 (strongly agree) were classified as indicating having experienced this benefit. All items were reported by at least 80% of the participants experiencing the specific benefit. The three most frequently endorsed benefit finding statements reported were “breast cancer has led me to meet people who have become some of my best friends,” “breast cancer has helped me become more aware of the love and support available from other people,” and “breast cancer has led me to be more accepting of things” (Table 1).

Principal component analysis of Benefit Finding Scale

Principal component analysis yielded one factor with eigenvalues greater than 1.0, suggesting a one-factor construct for the shortened version of the Benefit Finding Scale used in this study. All items had factor loadings of >0.5 (Table 1).

Relations with demographic and disease-related variables

To identify potential covariates, we tested the relationship between benefit finding and each of the demographic and disease-related variables reported above using correlation or analysis of variance when appropriate. No significant association was found between benefit finding and any of the demographic or disease-related variables (see Table 3). Thus, these variables were not included in the subsequent regression analyses.

Benefit finding, coping, psychological functioning, and social support

In correlational analyses, both active and avoidant coping strategies were modestly correlated with benefit finding (see Table 2). Specifically, higher levels of active coping ($r=0.25$, $p<0.001$) and avoidant coping ($r=0.22$, $p<0.01$) were both positively correlated with greater benefit finding.

Benefit finding was not significantly correlated with perceived stress. However, benefit finding was negatively correlated with depression ($r=-0.22$, $p=0.01$). Thus, greater positive psychological benefits resulting from the breast cancer experience were correlated with lower levels of depressive symptoms. However, social support was not significantly correlated with benefit finding.

A multivariate regression analysis was conducted in which benefit finding was regressed on the set of variables that had been found to be related to it individually: depressive symptoms, active coping, and avoidant coping. As a set, these variables accounted for 20% of the variance in benefit finding ($F(3, 122) = 7.03$, $p<0.001$). Significant individual contributions were made by depressive symptoms ($\beta = -0.35$, $p<0.001$) and active coping ($\beta = 0.18$, $p<0.05$). Avoidant coping was not significantly related to benefit finding in the multivariate regression analysis (Table 4).

Discussion

This cross-sectional study investigated psychosocial correlates of benefit finding in a sample of 148 Chinese breast cancer survivors and represents one of only a handful of studies on cancer-related positive growth among Chinese survivors. The results indicated that the majority of women reported benefit finding as a result of the breast cancer experience, especially a greater development and recognition of new and existing friendships and support networks surrounding them. This finding is an interesting phenomenon given that inter-connectedness, group values, and harmony are more highly emphasized in Asian cultures (Lam and Fielding, 2003) and reflect a relatively lower emphasis on positive changes in personal strengths, which tend to be more highly emphasized and valued in Western cultures. Furthermore, patients commonly somatize their feelings in Chinese culture (Nilchaikovit et al., 1993), and their emotions are usually controlled and contained in social

situations (Holroyd et al., 1998). Thus, the finding of high prevalence of benefit finding contributes to a greater understanding of how Chinese women respond to this health threat. As hypothesized, active coping was positively related to benefit finding. Our results are consistent with the findings from a recent review that identified problem-focused coping strategies to be related to post-traumatic positive changes in women with breast cancer (Kolokotroni et al., 2014). In addition, avoidant coping strategies were not associated with benefit finding in multivariate analyses, similar to the findings reported by Ho et al. (2004), Urcuyo et al. (2005), and Schroevers and Teo (2008). Previous research has demonstrated that interventions that improve problem-focused coping can lead to improvement in outcomes such as quality of life and depressive symptoms in breast cancer patients (Antoni et al., 2001; McGregor et al., 2004). Thus, future research should evaluate whether interventions that enhance the use of active problem-focused coping strategies, in a culturally relevant manner for Chinese breast cancer patients, can increase benefit finding and improve quality-of-life outcomes.

We found that benefit finding was not significantly associated with perceived stress, consistent with previous research (Manne et al., 2004; Weiss, 2004). However, depressive symptoms were correlated with benefit finding, similar to what Ho et al. (2004) reported. It may be that benefit finding is a protective factor against more stable or persistent mental health disorders, such as the development of depressive symptoms or major depressive disorder (Schwarzer et al., 2006), but would not necessarily be associated with the common or routine stressful events and tensions that can fluctuate on a daily or weekly basis. In addition, Stanton et al. (2006) have proposed that the lack of association between positive growth and perceived stress in some studies might be attributed, in part, to the absence of an appropriate indicator of the perceived stressfulness of breast cancer.

In this study, we did not observe any association between social support and benefit finding, similar to other studies in the field (Cohen and Numa, 2011; Cordova et al., 2001; Weiss, 2004). A review of benefit finding in cancer reported that there was inconclusive evidence for the association between social support and benefit finding (Pascoe and Edvardsson, 2013). One explanation for this nonassociation may be that the existence of support networks (such as that captured by the FSSQ) does not reflect the actual utilization of these resources. Cultural beliefs may affect whether Chinese women ask for support, as Asian women are less likely to seek help and social support (Wellisch et al., 1999) and worry about burdening the family (Ashing-Giwa et al., 2004). Thus, future studies among Chinese cancer survivors may need to incorporate measures of support utilization, in order to develop a greater understanding of how support resources may be associated with survivorship outcomes. Consistent with the Stanton et al. (2006) review, we found little evidence of an influence of demographic (age, marital or relationship status, annual household income, employment status, insurance status, and years of formal education completed) and disease-related (cancer stage, type of treatment received, time since treatment completion, and follow-up care status) variables on benefit finding. Some evidence indicates that patients with more advanced cancers report more benefit (Tomich and Helgeson, 2004), suggesting that greater threat to mortality may serve as a precursor to efforts at making meaning from the experience. However, a recent study demonstrated that women with a higher tumor stage at diagnosis experienced less benefit finding in comparison with women with a lower tumor

stage at diagnosis (Mois et al., 2009). Our study with predominantly stages I and II breast cancer survivors did not detect any differences in benefit finding by cancer stage, but this may be due in part to the low number of women with advanced disease in this study.

In this study, active coping and depressive symptoms accounted for 20% of the variance in benefit finding. Indeed, these findings suggest that other variables may be contributing to benefit finding, such as self-efficacy (Luszczynska et al., 2005) or marital intimacy (Canavarro et al., 2015; Talley et al., 2010). For example, self-efficacy had direct effects on personal growth among cancer survivors following surgical treatment (Luszczynska et al., 2005) and accounted for about 15% of variance in benefit finding. Therefore, future research with Chinese breast cancer survivors needs to explore these and other factors that may contribute to benefit finding.

This study has several limitations. First, use of a convenience sampling approach may have decreased the representativeness of the sample. It is possible that women who experienced positive growth would be more likely to participate in this survey study compared to women facing more challenges and poorer outcomes during survivorship. Second, due to the cross-sectional nature of the study, we cannot draw conclusions about potential causal relationships between coping and benefit finding. Future studies utilizing a longitudinal research design, a larger sample size, and a more general population of survivors across China is needed to inform our understanding about the dynamic processes that may exist between coping strategies and benefit finding. A third limitation involves the use of a shortened version of the Benefit Finding Scale. Although we used a shortened version of the Benefit Finding Scale, the items were carefully selected and pretested with our NCSA advisors and patient focus group participants to best reflect the culture and relevance of our target population. In addition, it should be noted that the short version of the Benefit Finding Scale demonstrated good internal consistency in this study, and the principal component analysis demonstrated that all items were loaded onto one factor.

Despite these limitations, this is one of the first studies that contribute to the growing literature on benefit finding and coping with breast cancer in a non-Western breast cancer survivor population. Additional studies utilizing a longitudinal design are needed to replicate and extend the findings reported here in larger and more diverse samples (e.g. across different provinces in China, greater heterogeneity in disease stage) to characterize benefit finding over time and across the cancer trajectory among Chinese breast cancer survivors. It is critical in future research that we explore the relationship of various clinical parameters and other psychosocial variables (e.g. risk perception and fear of recurrence) to benefit finding over time. In light of the consistent relationship between active coping strategy and benefit finding, facilitation of such attempts may be clinically useful. Previous research has shown that interventions that improve coping can lead to improvements in outcomes such as quality of life and depressive symptoms in Western patients with breast cancer (Antoni et al., 2009; McGregor et al., 2004). Future studies may evaluate whether culturally relevant interventions to promote proactive coping approaches as a protective factor would contribute positive outcomes among Chinese breast cancer survivors.

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Table 1.

Endorsement of individual benefit finding items and results of a principal component analysis of the six benefit finding items.

Having breast cancer ...	Endorsement (%) ^a	Factor loading ^b
Has led me to meet people who have become some of my best friends	96	0.74
Has helped me become more aware of the love and support available from other people	94	0.71
Has led me to be more accepting of things	91	0.54
Has helped me become a stronger person, more able to cope effectively with future life challenges	86	0.82
Has brought my family closer together	83	0.63
Has led me to deal better with stress and problems	81	0.76

^aPercentage of participants reporting particular benefit experience in agree to strongly agree degree.

^bindividual factor loading from a principal component analysis that yielded a one-factor structure.

Table 2.

Correlations between benefit finding and psychosocial variables.

Psychosocial variable	<i>M</i>	<i>SD</i>	Score range	Correlations	
				<i>r</i>	<i>P</i>
1. Benefit finding	4.1	0.5	1–5		
2. Perceived stress	25.4	6.7	0–56	–0.11	0.20
3. Active coping	3.0	0.7	1–4	0.25	0.00
4. Avoidant coping	1.9	0.8	1–4	0.22	0.01
5. Social support	2.4	0.9	1–5	–0.14	0.10
6. Depressive symptoms	5.9	3.7	0–27	–0.22	0.01

SD: standard deviation.

Table 3.

Descriptive statistics for demographics and disease-related variables, and their associations with benefit finding.

	<i>N</i> =148(%)	<i>p</i> value of association with benefit finding
Age (years), <i>M</i> (<i>SD</i>)	54.1 (7.39)	0.96 ^a
Marital status		
Married or living as married	134 (90.5)	0.72 ^b
Divorced or separated	8 (5.4)	
Widowed	6 (4.1)	
Annual household income ^c		
Less than 30K RMB	53 (35.8)	0.77 ^b
Between 30K and 60K RMB	68 (45.9)	
More than 60K RMB	16 (10.8)	
Missing	11 (7.4)	
Highest education		
Below high school graduate	48 (32.4)	0.94 ^b
High school	66 (44.6)	
College or above	33 (22.3)	
Missing	1 (1.0)	
Employment		
Employed	21 (14.1)	0.92 ^b
Unemployed	18 (12.1)	
Retired	103 (69.8)	
Homemaker	6 (4.0)	
Insurance		
No	3 (2.0)	0.60 ^b
Yes	145 (98.0)	
Stage of cancer		
Stage 0	4 (2.7)	0.87 ^b
Stage 1	40 (27.0)	

	<i>N</i> =148(%)	<i>p</i> value of association with benefit finding
Stage II	94 (63.5)	
Stage III	10 (6.8)	
Form of treatment completed		
Surgery	148 (100.0)	N/A
Chemotherapy	132 (89.3)	0.98 ^b
Radiation	56 (38.0)	0.25 ^b
Years after treatment completion		
Within a year	32 (21.6)	0.69 ^b
1–3 years	75 (50.7)	
3–6 years	41 (27.7)	
Frequency of follow-up checks ^d		
Every 3 months	17 (11.5)	0.94 ^b
Every 6 months	116 (78.4)	
Every 12 months	14 (9.5)	
Every 2 years	1 (0.7)	

SD: standard deviation; ANOVA: analysis of variance.

^aCorrelation analysis.

^bOne-way ANOVA.

^cAnnual household income was reported in RMB (Chinese yuan), the official currency in China. 1 RMB is equal to US\$0.15 in January 2016.

^dThe percentages for frequency of follow-up check do not add up exactly to 100% due to rounding.

Table 4. Regression analysis of depressive symptoms, active coping, and avoidant coping on benefit finding.

	Standard <i>B</i>	<i>t</i>	95% CI	<i>P</i>
Depressive symptoms	−0.35	−4.12	−0.06 to −0.02	0.00
Active coping	0.18	2.05	0.004 to 0.21	0.04
Avoidant coping	0.15	1.70	−0.01 to 0.17	0.09

CI: confidence interval.
 $R^2 = 0.20$, $F(3, 122) = 7.03$, $p < 0.001$.