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Coping With Breast Cancer Among Immigrant Chinese Americans

Tuyet Mai Hoang
University of Illinois at Urbana-Champaign

Lilian J. Shin
The University of Texas MD Anderson Cancer Center

Shengmei Xu
University of Illinois at Urbana-Champaign

Qian Lu
The University of Texas MD Anderson Cancer Center

Although there has been extensive research in the areas of coping styles and breast cancer survivors, few studies have examined coping in relation to the presence of psychological distress in Asian American breast cancer survivors. This study specifically explores the potential moderating role of two types of coping (seeking social support and distancing coping) on the relationship between cancer concerns and indicators of psychological distress (i.e., symptoms of depression and anxiety) among Chinese American breast cancer survivors and especially among a high-risk group, immigrant Chinese Americans. A total of 110 immigrant Chinese American breast cancer survivors completed a package of questionnaires. The current study analyzed data using hierarchical regression analysis. Broadly, cancer-related concerns were positively associated with both symptoms of depression and anxiety. Seeking social support coping was negatively associated with depressive symptoms. Distancing coping moderated the relationship between cancer-related concerns and the symptoms of anxiety, reducing anxiety among those with high levels of concern and increasing anxiety among those with lower levels of cancer concerns. For immigrant Chinese American breast cancer patients, distancing coping may be adaptive when dealing with high levels of stress. Future interventions among patients should consider teaching effective coping strategies within their cultural contexts.

What is the public significance of this article?
This study provides information on the complex mechanisms of coping styles of Chinese American breast cancer survivors. It also draws attention to creating culturally relevant cancer prevention and coping resources for high-risk and underserved Chinese American subgroups.

Keywords: breast cancer, immigrant Chinese American, coping strategies, moderating effect, psychological distress

Breast cancer is the second most common cause of death among Asian/Pacific Islanders (Centers for Disease Control and Prevention, 2019) and is the most commonly diagnosed cancer among Chinese American women (Liu, Deapen, & Wu, 2016). Although increasing attention has been given to Asian Americans with cancer, the majority of research on breast cancer has focused on White women.

Coping styles for breast cancer have been studied extensively among non-Hispanic Whites (Stanton & Yanez, 2013). Approach-oriented coping has been found to be linked to better adjustment (Yang, Brothers, & Andersen, 2008), whereas avoidance has been linked to poorer mental health outcomes (Deimling et al., 2006). Although several studies have examined coping among Hispanic breast cancer survivors (Yanez et al., 2018) and African Americans (Culver, Arena, Antoni, & Carver, 2002), very few studies have focused on Asian Americans (Ashing-Giwa et al., 2004). There is still a dearth of literature on whether the general coping patterns among White women with breast cancer can be applied to Asian Americans.

In this study, we focused on Chinese American breast cancer survivors' styles of coping, as Chinese individuals are the largest Asian ethnic group in the United States, with a rapidly increasing breast cancer incidence rate (US Census Bureau, 2018). It was also important to select a specific ethnic group to study because studies indicate that differences exist in interethnic experiences of coping

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Tuyet Mai Hoang, Department of Educational Psychology, Division of Counseling Psychology, University of Illinois at Urbana-Champaign; Lilian J. Shin, Department of Health Disparities Research, The University of Texas MD Anderson Cancer Center; Shengmei Xu, Department of Educational Psychology, Division of Counseling Psychology, University of Illinois at Urbana-Champaign; Qian Lu, Department of Health Disparities Research, The University of Texas MD Anderson Cancer Center.
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Correspondence concerning this article should be addressed to Qian Lu, Department of Health Disparities Research, The University of Texas MD Anderson Cancer Center, 1400 Pressler Street, Unit 1440 Houston, TX 77030-3906. E-mail: qlu@mdanderson.org

and survivorship within the Asian population (Gonzalez et al., 2016; Lee et al., 2013; Wellisch et al., 1999). It is therefore crucial to understand the impact of breast cancer in Chinese American populations. In addition, the lack of studies on Chinese American subgroups creates difficulties in understanding, treating, and designing targeted prevention for particular high-risk subgroups, such as immigrant Chinese American women.

A recent report has shown that there is a higher breast cancer risk among immigrant Asian American women than among United States–born Asian American women (Morey et al., 2019). Previous research has also found that Asian American women, particularly those who are of lower socioeconomic status, newly immigrated, or less acculturated, have the lowest rates of receiving cancer screenings, and therefore the lowest early detection rates, compared with all other ethnic groups (Tam Ashing, Padilla, Tejero, & Kagawa-Singer, 2003). In summary, immigrant Chinese American breast cancer patients may have more risk factors and adjustment issues compared to their United States–born counterparts. The experience of these women is also rarely discussed in the cancer survivorship literature (Tsai, Morisky, Kagawa-Singer, & Ashing-Giwa, 2011).

Qualitative studies provide additional information regarding the unique challenges that immigrant Chinese Americans encounter, such as limited English ability, a lack of similar cultural background among supporters, acculturation stress, and a lack of culturally appropriate and accessible cancer coping resources (Lee et al., 2013). Most studies on immigrant Chinese Americans are limited in sample size and have mainly used qualitative methods. Given these limitations, larger samples and more research are needed to better understand the underlying sociocultural factors that influence coping processes and help-seeking behavior in this population (Tsai et al., 2011). To address these gaps in the literature, the current study explored coping as an important factor that impacts the survivorship journey of immigrant Chinese American breast cancer survivors. The following sections provide more background information on experiences with breast cancer in Chinese Americans, and specifically in immigrant Chinese American women.

Cancer Concerns and Distress in Chinese Americans

General models of stress suggest that a diagnosis of cancer can be viewed as a major stressor affecting patients' mental health (e.g., depressive and anxiety symptoms; Pearlin, Menaghan, Lieberman, & Mullan, 1981). In the case of breast cancer, extensive research has documented that women have higher risks of depression, anxiety, or both after diagnosis (Burgess et al., 2005). For the Asian American community, previous literature supports that different cultural and social factors result in unique stressors and concerns across different subgroups (Kagawa-Singer, Wellisch, & Durvasula, 1997). Particularly, research indicates that cancer-related concerns of Chinese American women contribute to emotional distress in a way that is different from that of other Asian American subgroups.

Research has demonstrated that compared with Japanese Americans, Chinese Americans have significantly greater medical concerns and experience a higher level of perceived interactional difficulties with health-care providers (Kagawa-Singer et al., 1997). Another study found that immigrant Chinese American breast cancer survivors, owing to excess physical distress resulting from cultural norms in not expressing needs to physicians, experience greater levels of emotional distress compared with United States–born Chinese Americans (Wang et al., 2012). Research on Chinese women from Hong Kong diagnosed with breast cancer showed a similar trend: Women who had difficulties with treatment decision-making and were experiencing physical symptom distress were at risk of persistent psychological distress, including depression and anxiety (Lam, Chan, Ka, & Fielding, 2007). These risks are particularly high among immigrant Chinese American women because of immigration and acculturation stress, limited English proficiency, and a lack of social support and culturally relevant resources (Lee et al., 2013; Tsai et al., 2011; Wen, Fang, & Ma, 2014).

Coping With Cancer Among Chinese Americans

General stress theories postulate that coping can directly impact the level of distress and can moderate the association between a stressor and distress (Deimling et al., 2006; Lazarus & Folkman, 1984; Pearlin et al., 1981). The moderating effects of coping have been studied for physical health concerns (Donoghue, Jackson, & Pagano, 2003; Schroder, 2004; Yang et al., 2008), acculturative stressors (Wei, Liao, Heppner, Chao, & Ku, 2012), economic stressors (Jesus et al., 2016), and addiction problems (Corbin, Farmer, & Nolen-Hoekesma, 2013). To date, very few studies have investigated the role of coping as a moderator in the relationship between cancer-related stress and psychological adjustment, especially among immigrant Chinese Americans. Thus, our study aims to explore whether coping styles help to explain the relationship between cancer-related concerns and psychological distress among immigrant Chinese American breast cancer survivors.

Coping is a contextual process that includes environmental influences and cultural factors (Lazarus & Folkman, 1984). Coping is also a dynamic process in which individuals use multiple strategies to deal with stressful events. One commonly used coping conceptualization is that coping consists of two main types—*avoidance coping* (e.g., escape, distancing) and *approach coping* (e.g., acceptance, seeking social support; (Dunkel-Schetter, Feinstein, Taylor, & Falke, 1992; Lee, Song, Zhu, & Ma, 2017). Research has shown that people are flexible in their use of coping methods, and multiple strategies can be used or not used concurrently depending on their level of current stress and context (Dunkel-Schetter et al., 1992).

Literature suggests that coping with cancer is influenced by specific cultural components, such as cultural beliefs about cancer or culture-specific ways of coping and help-seeking, for different racial/ethnic groups (Gonzalez et al., 2016). For the Chinese American community, coping with breast cancer may involve drawing upon cultural beliefs about life and illness, social support resources, and communities in the immigrant country (Tsai et al., 2011). In particular, avoidance coping is commonly used in the Chinese community because of the traditions associated with Confucianism that favor emotional suppression and control and Taoist ethics to forbear problems while maintaining inner harmony (Lee et al., 2017; Lim, 2014; Tsai et al., 2011). Similarly, studies focusing on Chinese breast cancer patients living outside of the United States have shown that these patients are more likely to

adopt avoidance coping, such as self-reproach, self-distraction, illusion, and escape (Li & Lambert, 2007; Zhao et al., 2001). Following this logic, immigrant Chinese American women who may feel more connected to their culture of origin may be more likely to prefer avoidance coping. In addition, these women may have other reasons to rely on avoidance coping styles, such as a lack of social support, limited English proficiency, and a lack of similar cultural support within their community (Lee et al., 2013; Lu, Tsai, Chu, & Xie, 2018). These factors may also contribute to immigrant Chinese American women being high-risk due to low accessibility to cancer screenings, treatment, and resources.

Furthermore, the collectivist culture that characterizes Chinese Americans can also impact how survivors of this culture cope. In collectivist cultures, people view themselves as part of a larger social group, and they endorse values such as social harmony and role obligation to maintain relationships within the social group (Markus & Kitayama, 1991). In addition, giving and receiving help is an assumed part of daily life for members of collectivist cultures. Researchers have noticed that immigrant Chinese American survivors perceive more social support and rely on their immediate family and community members as they cope with cancer or stress than their more acculturated counterparts do (Lee, Suchday, & Wylie-Rosett, 2012; Tsai et al., 2011). These women usually live close to a Chinese community (e.g., Chinatown) and identify more with an Eastern collectivist culture rather than the dominant Western culture. Many contextual factors, such as location of living, availability of immediate family members, or accessibility to cultural support resources, appear to influence these women's coping processes. Thus, more research is needed to fully understand the experience of immigrant Chinese American breast cancer survivors and to develop targeted interventions and coping resources.

The current study examined two strategies of coping: seeking social support (a well-researched coping strategy) and distancing (a culturally relevant strategy in avoidance coping) and their impact on the relationship between cancer concerns and psychological distress. These two coping strategies may have different mechanisms and functions for Chinese American cancer survivors because of cultural and social factors, such as beliefs about cancer, help-seeking, and perceived availability of coping resources (Jose & Huntsinger, 2005; Tsai et al., 2011). Seeking social support is an approach coping style in which individuals try to establish interpersonal connections for informational, tangible, or emotional support (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Distancing is an avoidance coping style in which individuals make an effort to deal objectively with the stressor by minimizing its significance (Folkman et al., 1986). Research on coping in general has found that seeking social support is linked to better adjustment, whereas avoidance is linked to poorer mental health outcomes (Deimling et al., 2006). It is important to note that although distancing coping has been categorized as avoidance coping, it is sometimes (e.g., certain types of distancing coping and in certain situations) related to positive psychological adjustment (Dunkel-Schetter et al., 1992; Manne et al., 1994).

Although there is a dearth of research on Chinese and Chinese American breast cancer survivors in general, several studies have provided evidence of the relationship between coping styles and symptoms of depression and anxiety. Studies have shown that seeking social support is linked to better mental health outcomes (Chen, Jiang, Liu, Liu, & Li, 2002; Li, Ye, & Zhao, 2009; Lim, 2014). A pilot study discovered that Chinese American and Korean American breast cancer survivors who use social support have better mental adjustment related to their quality of life (Lim, 2014). Among cancer survivors in China, findings have shown that women who seek more social support during the recovery process report lower levels of depression and anxiety (Chen et al., 2002; Li et al., 2009), and self-efficacy in seeking support is positively associated with spiritual well-being (Yeung, Lu, & Lin, 2014). However, other studies among Chinese breast cancer patients in the United States (Yu, 2007) and in China (Lee et al., 2017), have not found a relationship between seeking social support and psychological outcomes. Although few studies have investigated distancing coping, two studies found that avoidance/distancing coping style was negatively related to distress among breast cancer survivors in China (Chen, Jiang, Li, Wang, & Liu, 2003; Chen et al., 2002). These studies provide some evidence for the main effect of coping, and the mixed results also suggest that coping should be examined as a moderator in the relationship between cancer concerns and distress.

To date, we have not found any studies using Chinese or immigrant Chinese American breast cancer survivors to empirically test whether coping styles act as a moderator in the cancer–distress relationship. Findings based on U.S. breast cancer patients, however, have provided some data to support such a function. One study found that approach coping had a buffering effect, such that when patients' physical symptom levels were high, those who used approach coping experienced fewer negative effects from stressors and maintained a higher quality of life (Yang et al., 2008). Across other Chinese-descent populations (not cancer-related), distancing-related styles of coping (i.e., avoidance or forbearance coping) were found to buffer stressor–distress relationships (Jose & Huntsinger, 2005; Wei et al., 2012). In summary, limited evidence suggests that coping strategies (seeking social support and distancing) can both directly affect distress and have a moderating effect on the cancer concerns–distress relationship by buffering the negative effects of psychological distress.

Current Study

The current study aimed to extend previous studies by examining the role of coping styles in the survivorship journey of Chinese Americans, especially for immigrants. We examined (a) the relationship between cancer-related concerns and cancer survivors' psychological distress (i.e., depressive and anxiety symptoms) and (b) whether this relationship was moderated by two coping styles (seeking social support and distancing) in the immigrant Chinese American breast cancer survivor population. Based upon previous literature, we hypothesized as follows:

Hypothesis 1: Cancer concerns would be positively correlated with distress.

Hypothesis 2: Seeking social support and distance coping would be negatively correlated with distress.

Hypothesis 3: Seeking social support would buffer the relationship between cancer concern and distress.

Hypothesis 4: Distancing coping would buffer the relationship between cancer concern and distress.

Method

Participants

The current study utilized baseline data of a longitudinal study (Lu et al., 2018) that focused on understanding the recovery process of Chinese American breast cancer survivors. The current study focused on immigrant Chinese Americans because previous research has found that this group faces more adjustment issues, risk factors, and unique challenges compared with other Chinese Americans and Asian American groups.

A total of 112 immigrant Chinese American breast cancer survivors were recruited for the current study and consented to participate. Two participants were excluded because they completed less than 20% of survey questions for all interested measures for this study; thus, the final sample for data analysis was 110. Participants' ages ranged from 39 to 84 years (M = 58.43, SD = 8.92). In all, 61.8% of participants were college educated or had higher education, 54.5% were employed, 35.7% were homemakers, and 9.8% were unemployed. In addition, 73.6% of the participants were married, 9.1% divorced, 9.1% never married, 4.5% widowed, and 2.7% separated. Many of the participants (45.5%) indicated Christian as their religion affiliation, 27.7% as agnostic, and 15.3% as Buddhist. All respondents stated that Mandarin was their primary language. In all, 88.1% of the survivors were diagnosed with breast cancer at Stages I to III within the past 5 years, 81% of the patients had had breast cancer surgery, and 62% had received chemotherapy in the past.

Procedure

The procedure was described in a previous report (Lu et al., 2018). Briefly, participants were recruited in collaboration with a community partner, Herald Cancer Association, with offices in Los Angeles, New York, and Dallas. Community recruiters made initial contacts with breast cancer survivors in these areas through phone calls, e-mails, an instant messaging app (WeChat), friends' referrals, and face-to-face recruitment during cancer survivor events. The selection criteria required that participants self-identify as immigrant individuals and be comfortable speaking, reading, and writing in Chinese. The research team followed up with eligible individuals, and out of 121 Chinese breast cancer survivors living in Southern California, New York, and Dallas metropolitan areas, 112 consented to participate in the study. Participants then received a questionnaire package written in Chinese and were instructed to fill out the survey packet. With the completion of the full study, they received $35 as a small token of appreciation. The majority of consenting participants were located in Southern California and New York, and a small number was from Texas. The protocol was approved by relevant internal review boards.

Materials

Cancer concerns. The 28-item Profile of Concerns About Breast Cancer scale (Spencer et al., 1999) was used to evaluate the cancer-related concerns in participants' lives. A sample item is as follows: "As you think about your illness, your partner (or a potential new partner) will reject you because of the tumor or your treatment." Participants responded on a 5-point scale from 1 (*not at all concerned*) to 5 (*extremely concerned*). For the purposes of this study, the summed total score was used with higher scores representing higher concern. Cronbach's alpha was .95 for this study. The measure has been shown to relate to psychological distress and has been validated with Black and Hispanic samples (Petronis, Carver, Antoni, & Weiss, 2003).

Coping styles. A revised version of the Ways of Coping Inventory (WOC; Folkman et al., 1986) was used to assess patients' coping styles. The study only included the Seeking Social Support and Distancing subscales of the WOC because these two dimensions were considered highly culturally relevant (Lee et al., 2017; Lim, 2014; Zhao et al., 2001). Participants reported their coping styles on a 4-point scale from 1 (*used somewhat*) to 4 (*used a great deal*). Higher mean scores indicated that patients adopted greater usage of seeking social support or distancing coping. The seeking social support subscale has six items, with sample items including the following: "Talked to someone to find out more about the situation" and "I asked a relative or friend I respected for advice." Cronbach's alpha was .83 for the Seeking Social Support subscale in this sample. In addition, the current sample data only included four items from the Distancing Coping subscale. A sample item is "Didn't let it get to me; refused to think about it too much." Cronbach's alpha was .67 for the Distancing Coping subscale. The Chinese version of WOC was used and validated in these studies (Chan, 1994). The original Distancing subscale had six items, but because this was a secondary data analysis, the study had to rely on the available shortened scale with four items. Lacking two original items reduced reliability because the Distancing subscale was conceptualized with all six items. Other previous studies used all six items for the Chinese version.

Psychological distress. The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) was used to assess participants' current psychological distress. The current study only included the Depression and Anxiety subscales consisting of 12 items. A sample item that assessed depressive symptoms included "During the past 7 days, how much were you distressed by feeling lonely?" A sample item that assessed symptoms of anxiety included "During the past 7 days, how much were you distressed by nervousness and shakiness inside?" The mean scores for the levels of depression and anxiety were calculated separately, and higher scores represented higher level of depressive and anxiety symptoms. This measure has been widely used for Chinese and Chinese American samples and was validated by previous studies (Hsieh et al., 2014; Li et al., 2018; Lu, Alvarez, & Miller, 2019; Wang, Kelly, Liu, Zhang, & Hao, 2013). The Cronbach's αs for the Depression and Anxiety subscales for this sample were .89 and .93, respectively.

Demographic information. Participants reported their demographic characteristics (e.g., age, education, annual household income) as part of the questionnaire package. They also reported medical characteristics (e.g., stage of breast cancer) in the package.

Statistical Analyses

Data were first screened for missing data and errors. Less than 3% of the data were missing, and it was found to be missing completely at random (i.e., Little's Missing Completely at Random test, ρ = .06). Thus, the Estimation Maximization (EM) function in SPSS Statistics Version 25 (IBM Corp., Armonk, N.Y., USA) was used to handle the missing data. Both Depression and Anxiety

scores were positively skewed (skewness = 1.54 and 1.71 subsequently). As such, the common practice of addressing skewness using a log transformation was conducted for both subscales (Tabachnick & Fidell, 2013). The transformed scores for symptoms of depression and anxiety were then used in the main analysis.

Descriptive statistics were calculated for all variables of interest (i.e., cancer concern, psychological distress, and distancing coping) and are shown in Table 1. Pearson's correlation and χ^2 test statistics were computed to explore the relationship between dependent variables and demographic characteristics. To test the main hypotheses, hierarchical multiple regression analysis was used, and all independent variables were centered.

Results

As shown in Table 1, medium-sized positive bivariate correlations were found between cancer concerns and depression (r = .58, $p \leq .01$), and anxiety (r = .55, $p \leq .01$). Seeking social support negatively correlated with the levels of depression ($r = -.26$, $p \leq .01$) and anxiety ($r = -.22$, $p \leq .01$). Before the main regression analyses, relevant assumptions of the statistical analyses were tested. The collinearity statistics were examined and determined to be within acceptable limits (variance inflation factor [VIF] = 1.019 for cancer concerns, VIF = 1.001 for social support, VIF = 1.039 for distancing; Tabachnick & Fidell, 2013). To test the main effect of cancer concerns and the interaction effects of breast cancer patients' coping styles, two-step hierarchical multiple regression analyses were conducted for survivors' depressive and anxiety symptoms separately as a dependent variable. Cancer concerns and the two coping styles (i.e., seeking social support and distancing) were entered at Step 1. The interaction terms between cancer concerns and the two coping styles were entered at Step 2.

Table 2 presents the findings of the hierarchical multiple regression analysis predicting anxiety symptoms from cancer concern, social support, distancing coping, and the two interaction terms. The results showed that the overall model was significant, $F(3, 106) = 17.64$, $p \leq .01$, and all variables in the model accounted for 33.3% of the variation in the level of anxiety. Introducing the interactions between cancer concerns and the two coping styles explained an additional 3.7% variation, and the change in R^2 was significant, $F(2, 104) = 1.78$, $p \leq .05$. The interaction effect between cancer concern and distancing coping was significant for survivors' anxiety level ($\beta = -.17$, $p \leq .05$). The higher level of cancer-related concerns was positively associated with more symptoms of anxiety ($\beta = .55$, $p \leq .01$). The whole model explained 37% of the variation in the level of anxiety. Examination of the interaction plot shown in Figure 1 showed a buffering effect of distancing coping on anxiety symptoms only when survivors had high levels of cancer-related concerns. However, with lower levels of cancer concerns, survivors who usued distancing coping experienced a higher level of anxiety symptoms. A simple test of the slope revealed that at a low level of distancing coping ($B = .01$, $p \leq .01$), the level of cancer concerns had a significant positive relationship with anxiety symptoms. At a high level of distancing coping ($B = .003$, $p \leq .01$), the level of cancer concerns also had a significant positive relationship with anxiety symptoms.

Table 3 shows the results for the hierarchical regression predicting depressive symptoms from cancer concern, seeking social support coping, distancing coping, and the two interaction terms. The findings suggest that the overall model in Step 1 was significant, $F(3, 106) = 20.5$, $p \leq .01$, accounting for 36.7% of the variation in the depression level. Cancer concerns ($\beta = .55$, $p \leq .01$) were positively associated with breast cancer survivors' depressive symptoms scores. On the other hand, seeking social support ($\beta = -.17$, $p < .05$) was negatively associated with breast cancer survivors' depressive symptoms scores. Introducing the interaction terms in Step 2 did not explain additional variation for the model.

Discussion

Consistent with previous literature, our findings supported Hypothesis 1, which stated that individuals with higher cancer concerns have higher psychological distress in general (i.e., levels of depression and anxiety). Our findings also provided partial support for Hypothesis 2, in that survivors seeking social support had fewer depressive symptoms but not lower anxiety symptoms. Distancing coping was not associated with distress. Findings did not support Hypothesis 3 about the moderating role of social support coping. In contrast, findings about the moderating role of distancing coping provided partial support for Hypothesis 4. Immigrant Chinese American breast cancer survivors who used distancing coping had lower anxiety symptoms when survivors had high amounts of cancer concern; however, distancing coping was related to increased anxiety levels when survivors had a low amount of concern.

The results provide support for distancing coping as a moderator of the relationship between cancer concerns and anxiety symp-

Table 1
Descriptive Statistics and Correlations (N = 110)

Variable	1	2	3	4	5	*M*	*SD*
Cancer concerns	1	.58**	.55**	−.18	−.02	60.88	22.52
Depressive Symptoms[a]		1	.86**	−.26**	.03	0.16	0.17
Anxiety Symptoms[a]			1	−.22**	.04	0.16	0.18
Seeking social support				1	.13	2.58	0.58
Distancing coping					1	2.18	0.58

Note. Possible ranges for depression and anxiety are 0 to 4. Cancer concern ranges from 28 to 140. Seeking social support and distancing coping range from 1 to 4.
[a] Log transformation was applied to depressive and anxiety symptoms because of skewness.
* $\rho \leq .05$. ** $\rho \leq .01$.

Table 2
Hierarchical Regression Analysis Predicting Anxiety Symptoms From Cancer Concern, Seeking Social Support, Distancing Coping, and Their Interaction Terms

Variables	*B*	*SE* B	β	ΔR^2	ΔF (*df*s)
Step 1				.333**	17.637** (3,106)
Cancer concerns	.004	.001	.536**		
Seeking social support	−.041	.025	−.133		
Distancing coping	.023	.025	.076		
Step 2				.037*	3.086* (2,104)
Cancer concerns	.004	.001	.550**		
Seeking social support	−.053	.028	−.172		
Distancing coping	.021	.024	.067		
Cancer Concerns × Seeking Social Support	−.001	.001	−.063		
Cancer Concerns × Distancing Coping	−.002	.001	−.171*		

* $\rho \leq .05$. ** $\rho \leq .01$.

toms. Survivors' cancer concerns had a significant positive relationship with symptoms of anxiety. This positive relationship was more prominent for the group that used low levels of distancing coping (i.e., the slope was steeper for the group with low distancing coping). For those with high levels of concern, distancing coping may have served as a buffer by lowering symptoms of anxiety. However, distancing coping had the opposite effect (i.e., increased symptoms of anxiety) when individuals had low levels of cancer concerns. During or post treatment, Chinese American breast cancer patients may continue to have cancer concerns that lead to increased feelings of anxiety. Moreover, for those women who worried a lot about cancer, avoiding their anxious thoughts and feelings may be adaptive for a certain time. This finding is supported by a previous study (Chen et al., 2003), in which avoidance coping was negatively correlated with anxiety for cancer patients after their surgery. Therefore, distancing coping may be a good distraction to minimize their worries and concerns. However, when the period of high stress passes (which could be short or long depending on individuals), continuing with distancing coping might increase anxiety because it prevents patients from seeking additional social support or coping resources. This may be particularly true for immigrant Chinese American survivors, who are more reluctant to express their concerns to family and friends due to a concern of burdening them or shame and stigma (Lee et al., 2013; Wen et al., 2014). Previous research also confirms that avoidance coping is negatively linked to health outcomes among nonclinical adults (Penley, Tomaka, & Wiebe, 2002) and cancer survivors (Deimling et al., 2006).

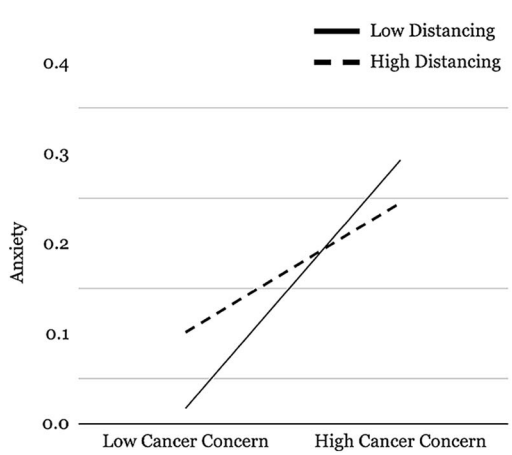

Figure 1. Moderating effect of distancing coping.

The current findings support that coping style is a moderator in the stressor–distress relationship (Deimling et al., 2006; Lazarus & Folkman, 1984). Furthermore, our findings contradict general research on coping among White American samples that postulates that avoidance coping styles are linked to poorer mental health outcomes (Carver et al., 1993; Low, Stanton, Thompson, Kwan, & Ganz, 2006; Schlegel, Talley, Molix, & Bettencourt, 2009). Our findings are instead consistent with literature that shows the buffering effect of avoidance-related styles of coping, such as distraction and distancing, among populations of Chinese descent (Jose & Huntsinger, 2005; Wei et al., 2012).

Our results are also consistent with previous studies that show that seeking social support helps lower depressive symptoms (Chen et al., 2002; Li et al., 2009; Lim, 2014). One characteristic of Chinese culture is the idea of having a "constantly striving spirit" that may lead to survivors feeling more empowered to conquer their illness by engaging in productive activities or doing something helpful for themselves or others (Li & Lambert, 2007). These constructive behaviors can counter the feelings of helplessness, pessimism, and isolation encountered in depression. Another possible explanation for our results is that the collectivistic culture of Chinese Americans can protect individuals from being isolated with depressive symptoms. Immigrant Chinese Americans may be more entrenched within the Chinese community because they have a greater need for support to adapt to life in the United States, compared with other Chinese Americans that may affiliate more with the dominant culture (Lee et al., 2012). As a result, immigrant Chinese Americans may be more likely to rely on immediate family members and community resources for support in coping with cancer (Tsai et al., 2011). This mutual social support characteristic of collectivist cultures may, in turn, help lower symptoms of depression.

In contrast, seeking social support coping and anxiety were only negatively correlated in the bivariate correlation and not in the regression model. However, this finding is consistent with other studies that do not find an association between seeking social support and anxiety (Lee et al., 2017; Yu, 2007). It is possible that seeking social support may itself be anxiety provoking and thus

Table 3
Hierarchical Regression Analysis Predicting Depressive Symptoms From Cancer Concern, Seeking Social Support, Distancing Coping, and Their Interaction Terms

Variables	*B*	*SE* B	β	ΔR^2	ΔF (*df*s)
Step 1				.367**	20.501** (3,106)
Cancer concerns	.004	.001	.551**		
Seeking social support	−.050	.023	−.171*		
Distancing coping	.021	.023	.071		
Step 2				.021	1.777 (2,104)
Cancer concerns	.004	.001	.559**		
Seeking social support	−.060	.026	−.207*		
Distancing coping	.019	.023	.065		
Cancer Concerns × Seeking Social Support	−.001	.001	−.064		
Cancer Concern × Distancing Coping	−.002	.001	−.119		

* $\rho \leq .05$. ** $\rho \leq .01$.

reduce the benefits of seeking social support. Furthermore, seeking social support in this study did not moderate the relationship between cancer-related concerns and psychological distress, in contrast to a previous study (Yang et al., 2008) that found a moderating effect of seeking social support on quality of life among predominantly White breast cancer patients. However, our results showed a similar trend as that found in the literature for distancing coping, which may indicate a lack of statistical power in estimating these effects. The results may also indicate that individuals use multiple coping strategies that function similarly to concurrently reduce depressive and anxiety symptoms.

Limitations

There are several limitations of our study that need to be noted. First, we used cross-sectional data, so future research should consider testing longitudinally. Due to the challenges of recruiting, this study used a small sample size ($N = 110$), which may have prevented us from finding all statistically significant effects because of the lack of statistical power. Moreover, due to the nature of the secondary data set and self-report measures, only two coping styles were measured. The reliability of the Distancing subscale may have been low because only four items were used instead of the original six. Future research might consider including the full six-item scale or a different measure of coping with better reliability. Lastly, our results may not be generalizable to other Asian American subgroups or to Chinese Americans overall. This is because the current research's sample mainly included immigrant Chinese American survivors, and their coping challenges and concerns have been shown to be different from those of other Chinese American groups (Lee et al., 2013; Wellisch et al., 1999; Wen et al., 2014). More research is needed with larger samples to better understand the needs and challenges of Chinese Americans with breast cancer.

Clinical Implications

This study provides useful information about the complex mechanisms of coping styles on breast cancer survivors' mental health and draws attention to creating culturally sensitive services that take into consideration different styles of coping and individual needs. Our results showed that breast cancer survivors who sought social support showed decreased in depressive symptoms. Moreover, for patients who have high levels of concern regarding their disease and prognosis, distancing coping may be a helpful way of reducing psychological distress in these populations. It is thus important to provide appropriate resources and care for survivors both in pre- and posttreatment phases, such as encouraging this population to seek social support to attend to their mental health needs. Psychological assessments tailored to racial/ethnic populations to monitor individuals' recoveries and identify risk factors that potentially hinder these processes may also be needed. More research is needed to create targeted, culturally relevant prevention and coping resources for high-risk and underserved Chinese American subgroups. Understanding cultural beliefs about cancer and culture-specific ways of coping that influence racial/ethnic communities can help address disparity in health services, as well as increase patients' accessibility to cancer screenings and treatments.

Conclusion

In conclusion, we found that in a sample of Chinese American immigrants recovering from breast cancer, individuals with higher cancer concerns also had higher psychological distress. Seeking social support lowered depressive symptoms, whereas distancing coping buffered the negative relationship between cancer concern and psychological distress for patients with high levels of concern. Our study extends the current literature related to cancer research on the Chinese American population by showing the complex process of coping for these survivors' psychological adjustment.

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