



Lived experiences of young adult Chinese American breast cancer survivors: A qualitative analysis of their strengths and challenges using expressive writing

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ABSTRACT

Purpose: Immigrant young adults of cancer survivors face unique challenges but their unmet needs are not well understood. The purpose of this study was to identify the challenges and strengths of immigrant young adult Chinese American breast cancer survivors.

Method: Descriptive phenomenology using a qualitative research approach was employed in this study. Expressive writing was used to explore the experiences of 15 young adult Chinese American immigrant breast cancer survivors. Thematic analysis was conducted to gain an understanding of the lived experiences of young adult Chinese American breast cancer survivors.

Results: On average, participants had been diagnosed at 37 years (ranging from 32 to 39) and living in the USA for 12 years. Participants' writings revealed their *challenges during and after treatment* (major theme), including *difficulty accepting having cancer at a young age, financial difficulties, self-blame, inadequate family support, uncertainty about their futures, and worries about their children and infertility* (sub-themes). Participants' *strengths and coping strategies* (major theme) included *physical recovery and positive self-perception, family as motivation for survival, and support from family and friends* (sub-themes). *Post-traumatic growth* (major theme) included *shifting life priorities and enjoying life and self-transcendence (i.e., forgiving and helping others)* (sub-themes).

Conclusions: The overarching topic found across the major themes in the young adult Chinese American breast cancer survivors' essays was the importance of interpersonal relationships, especially with family and children. Healthcare providers should respond with culturally appropriate support, referrals, and resources based on these findings.

1. Introduction

Breast cancer is the most common cancer in American women of all racial and ethnic groups (National Cancer Institute, 2019). Among Asian Americans, the fastest growing minority ethnic group in the US (Pew Research Research Center, 2021), the incidence rates of breast cancer have been steadily increasing as much as 0.3% from the period between 2004 and 2018. While the incidence of breast cancer for non-Hispanic White women has decreased, the incidence for Asian women has increased (Ellington et al., 2022). Furthermore, Asian American women born outside the US have more advanced breast cancer at diagnosis and

lower survival rates than do Asian American women born in the US (Morey et al., 2019) and non-Hispanic white women (Liu et al., 2013). Chinese Americans are the largest subgroup of Asians in the US (comprising 24%), and 63% of Chinese Americans are immigrants (Lopez et al., 2017). Thus, understanding cancer survivorship issues, challenges, and strengths of this population is critical for providing recommendations for suitable healthcare services for Asian American breast cancer survivors (BCSs), especially Asian immigrant BCSs.

The National Cancer Institute defines adolescents and young adult (AYA) patients as 15–39 years of age at cancer diagnosis (National Cancer Institute, 2020): middle to late adolescence (15–17 years),

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emerging adulthood (18–25 years), and young adulthood (26–39 years) (Arnett, 2000). It is important to recognize that AYAs are not a homogenous group; AYAs' developmental milestones and tasks differ by age group. Considering the broad age range of AYA cancer survivors, we focused on young adult (YA) BCSs for the present study. A greater percentage of Asian BCSs have been found to be younger (between ages 18 and 39 years) at diagnosis compared to non-Hispanic white patients (Chen et al., 2015). Importantly, these YA BCSs have a higher mortality rate and higher risk of metastatic recurrence (Johnson et al., 2018) than older BCSs. YA BCSs are also at increased risk of anxiety and depressive symptoms (Tsaras et al., 2018) and have poorer quality of life in the social domain (Choi and Henneghan, 2022; Champion et al., 2014) than their older counterparts. Being a YA BCS is often associated with other negative life events/situations including premature menopause and bone loss, multiple role demands, feelings of isolation, infertility, and financial problems (Campbell-Enns and Woodgate, 2015).

In addition to the challenges already faced by YA BCSs, immigrant YA Asian American BCSs may face even more challenges, given the combination of social and cultural factors. Asian cultures are collectivist, with individuals viewing themselves as interdependently connected with a larger social group (Markus and Kitayama, 1991); Asian American prioritize the well-being of members in their group, over their own well-being, and emphasize the importance of social harmony and fulfillment of relational obligations with close friends and family (Tsai et al., 2020; Bond, 1993). Prior research has identified unique challenges for Asian American BCS by focusing on the negative impact of Asian cultures, including cancer-related stigma, emotional suppression, women's roles as caregivers in the family, language barriers, lack of familiarity with the US healthcare system, and lack of social support in a foreign country (Warmoth et al., 2017; Wang et al., 2013b). The collectivism, along with the Confucian concept that family is the basic social unit of society, influences Asian cultures to highly value maintaining harmonious interdependent family relationships (Park and Chesla, 2016). Such interdependent family relationships have been found to be beneficial for the psychological well-being of persons from collectivist cultures (Lansford et al., 2005). Therefore, the present study explored YA Chinese American BCSs (CABCSS)' survivorship experiences with a more comprehensive cultural perspective by allowing them to express not only negative but also positive experiences regarding their cancer diagnosis and treatment.

Although several qualitative studies have investigated CABCSS' survivorship experiences (Wen et al., 2014; Warmoth et al., 2017) and many studies have examined survivorship experiences of YAs with cancer (Choi et al., 2022b; Johnson et al., 2018), few studies have examined immigrant YA CABCSS' cancer experiences. Immigrant CABCSS may be hesitant to share their deepest feelings and thoughts via in-person interviews because of cultural obstacles, such as cancer-related stigma, beliefs about bearing burden alone, and emotional suppression to keep interpersonal harmony (Wen et al., 2014). Additionally, interviews may have linguistic barriers due to participants' limited English proficiency. Expressive writing is a private, guided writing exercise that provides immigrant CABCSS a way to freely disclose emotions and thoughts in their preferred language without impediment from these cultural obstacles (Lu et al., 2016; Warmoth et al., 2017). Thus, in order to effectively study sensitive, cancer-related topics, an expressive writing approach was used in this study of immigrant YA CABCSS.

The purpose of this study, therefore, was to identify the social needs, challenges, strengths, and coping strategies associated with YA CABCSS by exploring expressive writing samples written by immigrant YA CABCSS. This study also aimed to better examine this population with a more comprehensive incorporation of cultural factors (e.g., collectivism) and to explore the unique intersectionality of BCSs who are both YA and immigrants. Since immigrant YA CABCSS are an underserved and understudied population, the goal of the present study is timely.

2. Method

2.1. Design

Descriptive phenomenology, used to explore participants' unique lived experiences and perspectives, was employed in this qualitative research study (Sundler et al., 2019). We collected data from persons (YA Chinese Americans) who had experienced the phenomenon (breast cancer) and developed a composite description of the essence of the experience for all of the individuals (Moustakas, 1994).

2.2. Sample/participants

One of the challenges in studying YA CABCSS is recruitment and we were able to overcome the challenge by analyzing data from two parent studies. Participants were a subsample of two original studies of expressive writing of 232 breast cancer survivors in collaboration with the Herald Cancer Association, a community-based organization for Chinese individuals affected by cancer, from the New York, Houston, and Los Angeles metropolitan areas (Lu et al., 2017, 2018). Eligibility criteria for the original studies were (a) having a diagnosis of stages 0-III breast cancer, (b) completing cancer treatment within the previous 5 years, and (c) being comfortable writing and speaking Chinese (i.e., Mandarin, Cantonese). Identifying participants younger than 40 years of age at diagnosis resulted in a subsample of 15, which was within the range of the sample sizes (10–17 participants) of similar qualitative studies (Lee et al., 2016; Breuer et al., 2017; Holland et al., 2021).

2.3. Data collection

In the parent expressive writing studies (Lu et al., 2017, 2018), survivors were asked to write about their deepest thoughts and feelings regarding their experiences of cancer, their coping strategies for dealing with stressors caused by breast cancer, their positive thoughts and feelings regarding their breast cancer experience, or their cancer diagnosis and treatment as objectively and with as much detail as they could (Lu et al., 2017, 2018). They were asked to write in Chinese continuously for 20–30 min at a convenient time in a comfortable setting once a week over the course of 3 weeks, for a total of three essays. Participants were asked to write a minimum of one page. Further details about the parent studies can be found elsewhere (Lu et al., 2017, 2018).

2.4. Ethical considerations

The original studies were approved by the appropriate institutional review boards. Informed consent was obtained from all participants before beginning the study and participants were informed that their data could be used in de-identified, aggregate form. The current study was exempt from IRB review due to the secondary analysis nature of it.

2.5. Data analysis

Consistent with descriptive phenomenology, thematic analysis was conducted to gain an understanding of YA CABCSS' lived experiences (Sundler et al., 2019). The thematic analysis consisted of six steps (Braun and Clarke, 2006): (1) the third author, who is a native speaker of Chinese, together with a Chinese-English bilingual research assistant, translated all of the essays into English, (2) the investigators repeatedly read the essays to familiarize themselves with the data, (3) the second and third authors conducted line-by-line analyses and created codes until data saturation occurred (Guest et al., 2006), (4) the codes were synthesized to create themes and subthemes, (5) labels and definitions for themes and subthemes were created, and (6) themes and subthemes were used to construct findings related to cultural meanings and the research question, and linked to pertinent literature. Any disagreement was discussed among the researchers until a consensus was reached.

2.6. Trustworthiness and openness

Criteria outlined by Lincoln and Guba (1985) were followed to address trustworthiness of the study. Bias and coding checks for data quality were made collaboratively by the four researchers to achieve confirmability and dependability. Prolonged engagement with the data and peer debriefing were used to ensure credibility. Throughout the process, each step of analysis was stored in a separate file to maintain an audit trail.

In terms of research on lived experiences, researchers must emphasize openness to the lifeworld and the phenomenon focused on and question their pre-conceptions (Sundler et al., 2019). In order to avoid the influence of investigators' personal experiences, we attempted to set aside our experiences, biases, preunderstandings about the research topic and previous research findings as much as possible and to take a fresh perspective toward the phenomenon under examination in this study by bracketing (Sundler et al., 2019).

3. Results

The mean age of the 15 study participants at diagnosis was 37.3 years (range, 32–39 years), and the participants had lived in the US for an average of 12.4 years (range, 1.5–28 years). The majority of participants were married (86.7%) and had at least some college education (60.0%). Most of the participants did not have full-time employment (66.7%). About half (46.7%) of the participants had been diagnosed with stage II breast cancer. Table 1 details each participants' characteristics.

The major themes that emerged from the data included: (1) challenges during and after treatment, (2) strengths and coping strategies, and (3) post-traumatic growth. Subthemes were also identified and are explained in this section (See Table 2 for themes and subthemes.).

3.1. Challenges during and after treatment

The theme of challenges during and after treatment included six subthemes: (1) difficulty accepting having cancer at a young age, (2) financial difficulties, (3) self-blame, (4) inadequate family support, (5) uncertainty about their futures, and (6) worries about their children and infertility.

3.1.1. Difficulty accepting having cancer at a young age

Many participants had a hard time accepting having cancer at a relatively young age, before 40. These participants stated feeling shock, denial, and anger when hearing their cancer diagnosis. For example:

[Participant G] "When I knew that I had breast cancer, I was most afraid of death. Then I asked, "Why me? What did I do wrong to suffer this kind of suffering, I was still so young. Many days [haven't

Table 1
Participants' demographics (N = 15).

Participant	Age at diagnosis (years)	Time in USA (years)	Marital status	Education level	Employment status	Stage of diagnosis
A	37	19	never married	some college	full-time	2
B	39	4	married	some college	housewife	3
C	36	3	married	high school	housewife	3
D	37	11	married	college or above	part-time	2
E	39	3.5	married	college or above	housewife	0
F	37	12	married	below high school	housewife	3
G	37	14	married	high school	part-time	2
H	37	20	married	college or above	housewife	2
I	39	28	never married	college or above	full-time	1
J	35	5	married	some college	full-time	0
K	38	20	married	below high school	housewife	2
L	35	14	married	college or above	full-time	0
M	32	5	married	high school	unemployed	2
N	36	1.5	married	below high school	housewife	2
O	39	26	married	college or above	full-time	1

Table 2
Themes and subthemes.

Themes	Subthemes
Challenges during and after treatment	Difficulty accepting having cancer at a young age Financial difficulties Self-blame Inadequate family support Uncertainty about their futures Worries about their children and infertility
Strengths and coping strategies	Physical recovery and positive self-perception Family members as motivation for survival Support from family and friends
Post-traumatic growth	Shifting life priorities and enjoying life Self-transcendence

been lived] and many things haven't been done. What did I do wrong?"

Another emotional reaction experienced by YA immigrant BCSs was anger at the sky or the supreme power in Chinese culture. Participants reported believing that the sky/the supreme power (called "Tian," "Lao Tian," or "Shang Tian" in Chinese) was unfair, and they expressed anger and a sense of unfairness regarding their own cancer diagnoses at a young age.

[Participant F] "How terrible is the word cancer! Last July, such a terrible and ruthless disease was diagnosed on me. Death seems to me like tomorrow. Back then, I have nothing but tears. Why does Lao Tian (Sky) treat me like this? I have a clear conscience. Why?"

3.1.2. Financial difficulties

For some immigrant YA CABCS participants, financial difficulty was a major concern. They were concerned about a lack of insurance, not having enough money for treatment, or not being able to support themselves. Additionally, some participants did not have adequate financial support from family members, or the whole family had financial struggles, which made the cancer treatment experience even more stressful for them.

[Participant I] "I do not know how I can support myself if I am sick and cannot work. As a single woman, there is really no one to take care of me. My father is old and he is on a fixed income, and he needs his money for himself. My two older sisters are just scraping by. Right now, I am very afraid of losing my job."

3.1.3. Self-blame

When participants learned that they had cancer, many blamed themselves. They reasoned that they had put too much pressure on themselves at work or that they did not know how to take care of their own health.

[Participant E] "I don't know how to take good care of my body and mind, and being ambitious often leads me to bear more pressure than I can bear without knowing it."

3.1.4. Inadequate family support

Immigrant YA CABCSs felt a lack of social support from their family and felt emotionally ambivalent due to conflicting wishes. As immigrants to the United States, they felt lonely, not supported, and not understood by their family members because they were separated from them in another country. At the same time, some hid their diagnosis or struggles from family so that their family members would not worry about them or because they did not believe others cared.

[Participant G] "In my own heart, there is also suffering [that is] hard to tell others. Because my family is in another country, only I am here. ... My brother and sister are too far away, and they can only stay with me by phone but not by my side, which is sad. The pain of doing electrotherapy and chemotherapy, even if I say it, they can't feel it, although they know it's hard. When it's too painful, I will secretly cry because I don't want them to worry too much."

[Participant F] "When doing chemotherapy, of course, great changes have taken place in my life. When I first started (chemotherapy), my mother had to return to mainland China. I had to take care of 4 children, to cook for myself and for children. However, I couldn't take care of the children because I was tired. But I couldn't get help from my family."

3.1.5. Uncertainty about their futures

Many YA CABCSs were worried about their future as a result of their cancer diagnosis. They were afraid that they would not be alive or that their future would be severely affected if their cancer relapsed. These worries also affected their self-efficacy in future planning.

[Participant A] "My biggest stressor is not knowing when it [the cancer] will relapse. There are many things to do, but I am afraid to do them because I am afraid of hard work and stress. I'm afraid it will relapse, because I heard that cancer comes from stress."

3.2. Worries about their children and infertility

Participants worried about many things, including their children's future, their future in general, and their sexuality. Most participants were mothers of young children when they were diagnosed with cancer. When they got the diagnosis, they were commonly concerned not about themselves, but about their children's fate if they lost their mothers. The participants feared that if they died the children would be pitiable and grow up without adequate care and protection from their mother.

[Participant M] "What I think about most is, what should I do with my three young children? Who will love them instead of me, and I look at their childish, naive, and cute smiles, how can Shang Tian bear to take away their mother? How can their happiness as normal children be taken away? My poor child, if your mother can't grow up with you, will you follow a bad role model, ... I always think of this, and keep feeling this pain in my heart: Who will love my child? ... God, I beg you, I beg you, let me live until the children grow up, and let my poor children live in a normal family."

Participants also reported worrying about infertility and feeling less sexually desirable after treatment.

[Participant I] "My boyfriend and I had talked about getting married and having children. However, right now, I cannot have children since I am not getting my period and I am taking medications that will be detrimental to [a] fetus. In 5 years, I will be able to get off the drugs and I will be able to have children. However, I only saved enough eggs for 2 or 3 tries. So, my chances of having a live baby could be 20% or 25% or 35%."

3.3. Strengths and coping strategies

The theme of strengths and coping strategies included three sub-themes: (1) physical recovery and positive self-perception, (2) family members as motivations for survival, and (3) support from family and friends.

3.3.1. Physical recovery and positive self-perception

Some participants' recoveries went well. They reported feeling like life had returned to normal after the disease and that the illness no longer affected their daily life. They also thus gained a more positive self-perception and perceived themselves as stronger and more self-reliant.

[Participant L] "Nowadays, I am more and more independent. I am taking care of health of myself and my husband. I became healthier. Also, I am more confident in people. Now I am not only not sick but a thriver."

3.3.2. Family members as motivation for survival

Family orientation was also a protective factor. YA CABCSs were often motivated to survive for the sake of family. They gathered strength for treatment and survival from their relationships with their husband or children.

[Participant F] "I thought about this before, should I give up the treatment? Every day when I saw the helplessness of my husband, my thoughts [on giving up] were gone. It was my home and my dear husband who gave me hope for survival. It is my children who gave me the courage to live a good life."

3.3.3. Support from family and friends

Many participants also reported receiving and feeling grateful for support from family members and/or friends.

[Participant K] "There are many sisters who care in the church. It always gives me a feeling of home, love."

[Participant L] "I am grateful for my husband's support and encouragement and friends' concern during treatment."

Some mentioned specific support regarding their appearance; for example, one participant reported that her husband's love no matter what she looked like was a source of healing and comfort to her.

[Participant L] "I think I have been an incomplete person, a not whole person since then. I can't get rid of such thoughts, although I also know that this idea is very depressing. Until one day, when discussing with my husband about plastic surgery, he suddenly asked with a smile: 'Would you like to ask the doctor to give you the entire D-Cup?' Both of us laughed, and this so-called 'incompleteness' was no longer a shadow of my heart."

3.4. Post-traumatic growth

The theme of post-traumatic growth refers to a positive life change that results from a traumatic, frightening, or stressful experience. Some individuals experience this growth during their cancer diagnosis and treatment. The theme of post-traumatic growth included two

subthemes: (1) shifting life priorities and enjoying life and (2) self-transcendence.

3.4.1. Shifting life priorities and enjoying life

Participants stated that their life goals and priorities shifted as a result of their cancer. Many previously believed that earning or saving money was very important, but after having cancer, they realized that their health and their family were more important. They stated the importance of eating high-quality food and exercising and that their children and family were the meaning of life.

[Participant G] “Before I fell ill ... I rushed to and from work every day, and I was super busy at home on the weekends. After I fell ill, I suddenly felt like, Should I keep living like this? What’s the use if I make a lot of money but lose my life? So I determined to wait until the illness is cured, don’t rush so fast, don’t worry about doing things quickly anymore, I should relax, I must work but should not hurry for money anymore ... In terms of emotion, I cherish the relationship with my family even more.”

[Participant A] “In the past, when I went to buy things ..., I wanted to find cheap things (save money), but now everything must be good (quality). In the past, I needed money; now, I need more time.”

Participants reported cherishing each day to a greater degree as a result of their brush with death. They reported wanting to enjoy life and to live well in each moment.

[Participant F] “From finishing treatment to now, I cherish every day. I cherish everything. I am happy every day. I am no longer willing to waste time to be unhappy about something ... I think Lao Tian cares about me. I want to live happily every day for my family and friends.”

3.5. Self-transcendence

Self-transcendence is “the capacity to expand individual boundaries and orient oneself toward activities, perspectives, and purposes beyond the self without negating the value of the self and the present context (Reed, 2009).” Participants described that their cancer experience influenced them as they increased emotional and psychological maturity, compassion and empathy for others, and increased appreciations for difficulties and vulnerability. In particular, participants reported wanting to forgive people, especially family members, for small things and to not hold grudges over trivial matters.

[Participant F] “I learned to forgive more people, and I gave myself more room to forgive others for their mistakes. Many years ago, my father-in-law miscalculated me. I thought I was right. Why did he treat me like this? But since I got sick, I overlooked his wrongdoing. I calmly forgave him. I don’t think it is necessary to continue holding a grudge about this and cause yourself to be unhappy.”

Transcendence is anchored in spirituality. Spirituality can help individuals discover the meaning that would fulfill them and lead them to transcendence. One of the characteristics of self-transcendence is a shift in focus from the self to others (Wong, 2016). Many participants wrote that as a result of their cancer experiences they now had a better understanding of and greater trust in a higher power. In addition, YA CABCSs stated that their experience helped them to become more giving, especially by wanting to help others with cancer.

[Participant H] “I thought God only loved me just at an OK level, and now I know that He sees me like a jewel in the palm of His hand, loves me so much. He doesn’t despise anyone, whether we are cute or not, good or bad.”

[Participant A] “I learned how to help others, care about others, help some people who have just been diagnosed with the disease. I can

share with them my experience of breast cancer, and often recommend them to exercise, eat more healthy food, less oil or meat, eat more vegetables and fruits. Help them with how to apply a foam breast after they finish surgery, which one is better ... Sometimes, I help them to call their doctor, and after that, pick them up again to get a foam breast.”

4. Discussion

The current study contributed to the literature with its unique sample, YA CABCSs, and unique methodology, an expressive writing context. Expressive writing helped participants to reveal deep feelings and private thoughts. As cancer-related stigma and emotional suppression are common in Asian Americans, our study utilized a unique anonymous methodology to uncover key issues that YA CABCSs may not be comfortable disclosing through interviews or focus groups (Lam and Fielding, 2003; Warmoth et al., 2017). Moreover, since participants could write in their native language, our methodology removed previously discovered barriers to communication with healthcare providers and enabled participants to relay their cancer experience more naturally (Warmoth et al., 2017). Finally, while previous studies have only found negative influences of Asian cultures in cancer survivorship, our study also found strengths in the cultural factors affecting this population. Therefore, to the best of our knowledge, the present study is the first to explore cancer survivorship issues with regard to the intersection of age, culture, and acculturation among immigrant YA CABCSs. Themes emerging from YA CABCSs participants’ essays included their challenges during and after treatment (difficulty accepting having cancer at a young age; financial difficulties; self-blame; inadequate family support; uncertainty about their future; and worries about their children and about infertility), their strengths and coping strategies (physical recovery and positive self-perception; family members as motivation for survival; and support from family and friends), and post-traumatic growth that emerged from their cancer experience (shifting life priorities and enjoying life and self-transcendence). The overarching, repeated topic found across the categories in YA CABCSs’ essays was the importance of interpersonal relationships, especially those with family and children, which was consistent with both their life stage (YA), as well as collectivist values characteristic of Chinese culture.

One age-related concern unique to YA CABCSs was about their young children. Many participants feared not being able to fulfill their roles as mothers and missing out on their children’s future, which is consistent with other studies of young and older cancer patients with dependent children (Kuswanto et al., 2018; Park et al., 2017). Compared to male YA cancer survivors, female YA cancer survivors have been found to more frequently report concerns and guilt about their children because they could not take care of their children (Choi et al., 2022b). Literature on female cancer survivors who have dependent children has found that parenting concerns negatively affect patients’ quality of life and psychological well-being (Park et al., 2018). In Asian cultures especially, women are expected to perform the role of family caregiver and not place extra burdens on family members despite role reversal during the cancer journey (Cheng et al., 2013); in our study, YA CABCSs became anxious about not being able to fulfill their family responsibilities if they died.

Additionally, YA CABCSs may face more fertility and sexuality concerns related to intimacy after cancer compared to older BCSs, which is consistent with prior literature. YA cancer survivors experience fear of losing their ability to have biological children, which may cause grief and existential suffering, lower self-esteem, change future plans, and negatively affect romantic relationships (Choi et al., 2022b). In light of its impact on their persona and future life, YAs have described the prospect of possible infertility as worse than the cancer diagnosis itself (Alander et al., 2021). Some YA BCSs even describe their partners as “silent victims” (Thewes et al., 2004). Due to a lack of life experience, YA

BCSs' partners may not be as well equipped to cope with the life changes brought about by cancer compared to their older counterparts, requiring YA CABCSs to bear the additional burden of caring for their partners, doing chores, and maintaining routines at home, in addition to themselves.

Some YA CABCSs in this study mentioned a shift in their life priorities as a result of their cancer experience, similar to previous studies with YA BCSs (Yoo et al., 2017; Choi et al., 2022a). YA CABCSs' cancer diagnoses and treatment reminded them of their own mortality at a young age, which may have elicited prioritization of their families and enjoying life over career success and earning income. Socioemotional selectivity theory (Carstensen et al., 1999) may explain this priority shift; this theory argues that a context such as illness can increase people's perceptions of time as finite, leading them to value expansion goals less and to instead focus more on goals with emotional meaning (Carstensen, 2006). This shift from trying to earn more money for the family to spending more time with them may indicate that these YA CABCSs were thinking about contributing to their families in a new way, which not only is consistent with their cultural values, but also served to increase their own well-being. Thus, this change in perception by YA CABCSs may indicate that post-traumatic growth occurred.

Interpersonal relationships were both a source of stress and support to the YA CABCSs due to their collectivist cultures. On one hand, interpersonal relationships could be a source of stress to immigrant YA CABCSs when they felt did not have adequate social support in the US due to the lack of social networks in a new country or cultural stigmas about cancer. Prior studies have shown that Chinese breast cancer survivors tend to report a small network of people they can rely on during their cancer journey, which consist primarily of family members (Cheng et al., 2013). In western cultures, however, breast cancer survivors rely on friends and peers (Kroenke et al., 2013). It may be because coping with cancer is largely viewed as a private and familial matter by many Chinese cancer survivors. They are reluctant to seek assistance from outside family and prefer to rely on their kinship network. Occasionally, they even withdraw from their existing network out of fear of being stigmatized (Cheng et al., 2013). Furthermore, many immigrant YA CABCSs did not disclose their hardships to family members in China. They likely did not do so because due to their collectivist values of group harmony and familialism, they did not want to burden their family members. On the other hand, family relationships could also serve as a positive motivation for recovery or a source of support during cancer treatment and survivorship for YA CABCSs. YA CABCSs in our study gathered strength for treatment and survival from their relationships with their husbands and children. They also found family members' instrumental and emotional support to be valuable and beneficial to their well-being while coping with cancer.

Some of the themes and subthemes surfaced in the present study have been reported in prior studies among YA BCSs and Asian American BCSs. However, while previous literature has tended to focus on how Asian cultures negatively affect the cancer experiences of Asian American BCSs, our study discovered the positive aspects of the relational orientation characteristic of collectivist cultures among YA CABCS. This study enriches our understanding of immigrant YA CABCS, a population that is underserved and understudied. Despite the benefits YA CABCSs experience from valuing family relationships, it is also important to note the potential dangers of prioritizing the needs of family members over self-care in this population, which may increase the risk of recurrence (Mackenzie, 2014; Yoo et al., 2017). Given Asian cultures' strong traditions of valuing family obligations (Park and Chesla, 2016), longitudinal studies are needed to explore the impact of cancer on immigrant YA CABCSs' relationships with family members and how to better facilitate these relationships in a healthy way.

4.1. Implications

The findings of this study provide insights into age- and culture-

specific challenges YA CABCSs may face and suggest implications for oncology nurses and other healthcare professionals. First, in terms of culture, nurses and medical professionals working with this population should be educated and aware of Asian cultural values. As such, oncology nurses should provide patients sufficient opportunities for questions and repeat relevant medical information when taking care of YA CABCSs. Asian Americans tend not to verbalize their concerns and issues due to fear of wasting the healthcare professionals' time, their respectful but deferential communication styles with healthcare providers, or reluctance to burden their family members (Wang et al., 2013a; Cheng et al., 2013). Second, psychological services can also be offered to YA CABCSs to provide emotional support and information regarding cancer-related changes in parenting and fertility (Kuswanto et al., 2018; Park et al., 2018). Finally, due to YA CABCSs' age-specific struggles, peer mentors and peer groups may be helpful, as peers in a similar life stage may be able to share experiences dealing with similar developmental tasks, needs, and challenges (Choi et al., 2022a).

4.2. Limitations

There are several limitations to this study. First, although the expressive writing approach allows for free disclosure of intimate thoughts and feelings, YA CABCSs might have shared more survivorship experiences if it had been possible to probe further about their writings, which is commonly used in interviews and focus groups. Second, as our sample was obtained from two parent projects with participants from the Los Angeles, New York, and Houston metropolitan areas, our findings may not be representative of all YA CABCSs, such as those who live in smaller cities and rural areas. Third, the present study did not include other possible perspectives, such as YA CABCSs' friends, families, and healthcare professionals, about the survivorship experiences of YA CABCS.

5. Conclusion

In conclusion, this study revealed age- and culture-related issues among immigrant YA CABCSs through an expressive writing approach. Challenges during and after treatment, strengths and coping strategies, and post-traumatic growth were centered around interpersonal relationships, especially family relationships, which are valued by collectivist cultures. These findings provide new directions for future research and clinical implications for a better quality of life among underserved YA CABCSs.

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CRediT authorship contribution statement

Eunju Choi: Conceptualization, Formal analysis, Visualization. **Lilian J. Shin:** Conceptualization, Software, Data curation, Formal analysis, Visualization. **Lingjun Chen:** Conceptualization, Software, Data curation, Formal analysis, Visualization. **Qian Lu:** Conceptualization, Formal analysis, Visualization, Funding acquisition, Supervision.

Declaration of competing interest

No conflict of interest has been declared by the authors.

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