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Irrational beliefs surrounding the diagnosis of breast cancer in young Chinese women

An observational study

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Abstract

An irrational belief is the direct cause of negative emotions and behavioral disorders in patients with breast cancer. Thus, this article examines these patients' irrational beliefs, which helps improve the emotions and behavioral disorders of breast cancer patients. Chinese breast cancer patients have unique irrational beliefs due to the influence of Chinese traditional culture. To understand the irrational beliefs surrounding breast cancer diagnosis in young Chinese patients, we conducted an interpretative phenomenological study.

Semi-structured interviews were conducted in young Chinese breast cancer patients. According to Colaizzi method modified by Edward and Welsh, transcribed interviews were analyzed to understand patients' irrational beliefs. Based on the theoretical framework, this study adopted interpretative phenomenology. Interpretive description was used to construct participants' experiences of irrational beliefs. Thematic sufficiency was confirmed after 17 interviews.

Owing to the lack of knowledge about breast cancer, all participants were more susceptible to traditional Chinese culture, empiric theory, family reassurance, and healthcare providers' behaviors, leading to patients' irrational beliefs, negative emotions, and behavioral disorders.

This research confirms that irrational beliefs in young Chinese breast cancer patients are profoundly influenced by traditional Chinese culture. Chinese healthcare providers can use this information to provide targeted nursing, supportive services, and research, and help women identify their beliefs and understand how these beliefs affect their health.

Abbreviations: ABC Theory = antecedent belief consequence theory, REBT = rational emotive behavior therapy.

Keywords: breast cancer, irrational beliefs, qualitative research, traditional Chinese culture, young women

1. Introduction

Previous studies have shown that younger women with breast cancer have a higher risk of anxiety and depression than older women with breast cancer because they were more concerned about their career and financial situation than older women.[1–4] There is also evidence showing that young women diagnosed with breast cancer are doing worse in terms of quality of life, depression, and fear of cancer recurrence.[5,6] Moreover, compared with middle-aged and elderly patients, young breast cancer patients received relatively less external support, making it more challenging to recover quickly from negative emotions.[7] However, according to the antecedent belief consequence (ABC) theory of emotion of Ellis,[8] having breast cancer is not enough to trigger psychological problems (negative emotions and behavioral disorder); irrational beliefs, comments, interpretations, and outlooks of life are embedded in human psychological problems.

Some studies have shown that irrational beliefs are common in cancer patients and have had many adverse effects on patients.[9,10] According to the international study findings (Iran), the level of irrational beliefs in cancer patients was higher than that of healthy people,[9] and breast cancer patients have had comparatively firm irrational beliefs.[10] Moreover, a previous study revealed that, among breast cancer patients, high levels of irrational beliefs were associated with high levels of functional and dysfunctional negative feelings.[11] Besides, a cross-sectional study showed that irrational beliefs through somatosensory amplification could aggravate the painful feelings of breast cancer patients before chemotherapy.[12]

Editor: Chiedu Eseadi.

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Patient Consent: This study had obtained the informed consent of all patients.

The authors have no conflicts of interest to disclose.

Availability of data and materials: The data that support the findings of this study are available from [third party name] but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of [third party name].

The datasets generated during and/or analyzed during the current study are not publicly available, but are available from the corresponding author on reasonable request.

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How to cite this article: Li X, Zhao M, Dong X, Zhao Q, Zhang X. Irrational beliefs surrounding the diagnosis of breast cancer in young Chinese women: an observational study. Medicine 2021;100:9(e25024).

Received: 27 July 2020 / Received in final form: 8 February 2021 / Accepted: 9 February 2021

http://dx.doi.org/10.1097/MD.0000000000025024

The irrational beliefs were presented by Albert Ellis (1957), who believed that everyone's belief system consisted of rational beliefs and irrational beliefs.[13] Rational beliefs refer to attitudes and ideas in line with objective reality, both reasonable and logical. In contrast, irrational beliefs refer to irrational, grandiose, and illogical attitudes and ideas that do not correspond to empirical reality.[14] When people firmly believe in irrational beliefs, they often, but not always, show dysfunctional emotions and behaviors.[15] The categories of irrational beliefs include demandingness (absolutistic/inflexible requirements), awfulizing (or catastrophizing), frustration intolerance (or low frustration tolerance), and global evaluation of one's person (self-downing), other persons (other-downing), and/or the life situation (life-downing).[15] The details of characteristics in irrational beliefs are shown in Table 1. Moreover, Ellis also held that people hold a unique set of assumptions about themselves and their world, guiding them in various situations.[14] Unfortunately, some people's assumptions are mostly irrational, which leads to improper behavior and reactions, thereby affecting their chances of happiness and success.[14]

Early intervention could be useful in irrational beliefs. Ellis believed that irrational beliefs can be transformed into rational beliefs through psychological treatment, such as rational emotion behavior therapy (REBT), and that negative emotions and behavioral disorders can be improved.[14] At present, there are only a few experiments around the world to explore the effects of interventions on the irrational beliefs of breast cancer patients. These studies have shown that the improvement of irrational beliefs in breast cancer patients has a positive impact.[16,17] A prospective study also showed that improving irrational beliefs could reduce emotional distress and chemotherapy-induced side effects.[18] Furthermore, the results of a Chinese clinical study revealed that the improvement in irrational beliefs could help reduce the pressure and pain caused by the disease, thereby engendering positive changes in the life.[10]

China has its own unique traditional culture (Confucianism, Buddhism, and Taoism), which significantly influences the Chinese. Moreover, there is no qualitative research on irrational beliefs about breast cancer in young Chinese women. Therefore, it is necessary and essential to conduct qualitative research to explore how irrational beliefs directly cause psychological problems in China's breast cancer patients. In this way, this study aimed to record and understand young Chinese women's irrational beliefs about breast cancer as they navigated medical services from symptom onset to diagnosis. Understanding this population's unique irrational beliefs is essential, has implications for healthcare providers, and helps psychologists make reasonable treatment plans for such patients in the future. First, to the best of our knowledge, this is the first qualitative study to explore the irrational beliefs in breast cancer patients.

Table 1

Characteristics of irrational beliefs.

Distorted and unreasonable view and viewpoint. Not analyzed, compared, reasoned, or judged, but relies on the intuition, emotional state, empirically based, and the one-sided idea that has been formed in the subconscious to make the conclusion
Demandingness, like something must or should happen
Rigid and extreme
Illogical, absurd, or inconsistent with reality
Tendency to produce extreme feelings like crying all the time out of control
Tendency to lead to abnormal behavioral consequences like insomnia all night over and over again
Awfulizing, which means that if something is going to happen, it must be horrible, terrible, or unfortunate
Overgeneralization refers to the evaluation of the event is biased. Usually judge oneself or others' value by the result of a certain event, and think oneself, others or things are of no value

2. Methods

2.1. Study design and setting

This study was conducted using interpretative phenomenology.[19] The material was derived from the individual, semi-structured interviews with 17 patients a few days after diagnosis and before surgery. This type of interview is considered suitable for accessing and exploring patients' irrational beliefs candidly, enabling patients to express their perspectives better on the interviewer's agenda. Investigators participated in the daily care of patients as nurses, leading to establishment of a significant nurse–patient relationship. During the interviews, this relationship facilitated smooth communication between the investigator and patients.

The hospital ethics committee approved the study. Patients were recruited from the breast surgery department of a highly ranked central hospital in Huzhou. Additionally, this hospital serviced numerous rural and urban women from the city to ensure patients' recruitment in diverse backgrounds.

2.2. Participants and recruitment

The investigators contacted the study population comprising women with breast cancer confirmed by pathological examination. The pathological examination results are documented on the electronic health record in the inpatient department of breast surgery. All study participants were aged between 20 and 39 years and were able to speak Mandarin. Furthermore, they volunteered to participate in the study.

2.3. Interviews

The interviews were conducted in the chat room of the breast surgery department, lasting for 30 to 60 minutes (average time 45 minutes). With the patients' permission, all interviews were recorded. For one interviewee, the interviewer chatted with her. The other interviewer just observed and recorded in writing the patient's expression, tone, and movement to provide data for the analysis. Examples of the interviewer's questions are shown in Table 2.

2.4. Data collection

Data were collected from semi-structured face-to-face interviews (only 2 interviewers and 1 participant in the room). The interview outline was developed based on expert opinions. The researchers used the initial interview outline to conduct 5 preliminary interviews for the targeted population to verify the outline's validity and feasibility and make modifications according to the interview results.

2.5. Data analysis

Interpretive description, a qualitative research method based on the applied disciplines, was used to construct an account of

Table 2

Interview guide example questions.

1. How long has this symptom occurred in the breast?
2. How long is the interval between the appearance of breast symptoms and your visit?
3. After discovering breast symptoms, why you came or didn't come to see a doctor?
4. What was your mood and thoughts when you came to see the doctor?
5. Have you ever thought that the examination results are the worst case? Why
6. What changes have taken place in your mood and thoughts from the beginning of the visit to knowing the examination results?
7. What prompted this change to happen?
8. What is the saddest thing for you in this whole process?

participants' experience of irrational beliefs.[20] Interviews were de-identified, transcribed verbatim, and reviewed accurately. Throughout the reviewing process, a preliminary analysis was conducted. The initial thoughts were recorded, and the expression, tone, and movement of participants were highlighted.[21] The data were analyzed strictly under the guidance of Colaizzi phenomenological analysis method modified by Edward and Welsh[22]: transcription and reading of all the interviewee's records; excerpting the meaningful statements related to the problems of this study; summarizing and refining meaningful statements and assigning the code numbers; categorizing the code number collection into a genus; describing the research phenomenon thoroughly; analyzing the symbolic statements and the language; simplifying and describing the thematic framework that forms this phenomenon; and returning findings to the patients for reviewing to verify their meaning.

The 2 authors coded the first 3 transcripts under a qualitative research expert's guidance to construct a standard codebook. In contrast, the other transcripts were coded independently. Interviews were conducted until the thematic was sufficient.

3. Results

3.1. Demographics

All 17 participants completed the interviews. Few new themes emerged after the 13 interviews, and thematic sufficiency was confirmed after 17 interviews. The participants were all Chinese with a median age of 37 years, with a range of 31 to 39 years. They were all married and had 1 or 2 children. Most participants had a high school degree. The largest percentage (58.8%) of participants had a full-time job. Most of the patients (52.9%) had stage II infiltrating ductal carcinoma in the breast. Participants' irrational beliefs were described according to the time frame.

3.2. Downplaying the risk

Initially, almost all the patients thought the breast cancer was "far away from them, and they did not think they would get breast cancer" (ID6) (Table 3). One patient explained, "I dressed up carefully before I was going to the hospital, and it felt like I was going to have a vacation. After the first examination, the doctor said that I needed to be hospitalized. I knew that such a minor surgery could be discharged after a few days in the hospital. Then I went to the inpatient department happily (ID7)."

Owing to a lack of knowledge about breast cancer, participants do not think much about developing breast cancer. Patients could not distinguish symptoms of hyperplasia, benign tumors, and breast cancer. They were ignorant of these symptoms indicating malignancy, and therefore, they did not pay enough attention to their disease. In these cases, patients either did not think that "such a serious disease could easily happen to themselves" (ID6), or applied other people's experiences in themselves, took family and friends' reassurances seriously and as a fact, even thought the painful lump was a benign tumor (ID9). One participant stated, "My sister-in-law also had it (hyperplasia) last year. At first, she was very painful at home. She then underwent a small operation in the hospital and recovered. My mother comforted me, 'you do not feel any pain. It is all right. Do not worry.' Thus, I did not care about it even though I have had breast hyperplasia for many years. I thought the symptoms of the disease mostly were just about hyperplasia (ID2)."

Participants also believed that they would not develop breast cancer because of their misleading belief. Many participants thought "only the older people would get it" (ID3), and cancer would not happen to the young. The patients who had skewed perceptions of enhancing immunity believed that people with mild illness tend to pay more attention to their health and that those with frequent mild illnesses can boost their immunity. The Chinese aphorism, "small disease keeps away serious disease," was the chief culprit of causing this kind of perception. One participant believed, "My health is so weak that I often get some minor problems easily, and I do not deserve to get cancer! (ID10)"

Other participants never thought about getting this terrible disease due to the influence of the common faith. There is a commonly used old Chinese aphorism (maxim) "good is rewarded with good." Most believed it was without a shadow of a doubt, which means that doing well has a good return. Those doing good and being kind (exemplified by respect, care for others, and being lenient toward others) as part of everyday life expect good around them: "Good people must have good rewards. I am such a kind person that I never thought about that (ID5)."

3.3. Foreboding

Participants are overly concerned about the healthcare providers' words and actions while seeking help and made their preliminary judgments on this basis. However, this judgment was not based on medicine but only on the intuition of the patients. The belief that something must will or must not happen, based on one's subjective judgment, is a form of irrational belief. This "demandingness" usually appears together with the words "must" or "should." It was unreasonable for patients to judge the disease's severity only from their intuition without medical knowledge, based on intuition. Two participants described, "The doctor examined my chest and said, 'There is such a big lump in it, why do not you know?' I said, 'I did not touch it at ordinary times. How could I know? Moreover, it was just under the nipple; how could I know! Then, the doctor asked me to be hospitalized immediately. At that time, I had a bad feeling that something terrible has *certainly* happened to me (ID1)."' Moreover, "Although the doctor did not say it clearly at the time of the examination in the hospital, it can be seen that my examination result was *definitely* not good from his eyes and tone of expression (ID3)."

After obtaining the diagnosis, the patients' family members were informed first and asked to decide whether to tell the patient the truth. This action caused the patients to fall into their

Table 3

Individual interviewer quotes.

Theme	Quotes
Downplaying the risk	"I had always thought that this was a disease that only older people would get it." (ID3)
	"Good people must have good rewards. I am such a kind person that I never thought about that." (ID5)
	"My health is so weak that I often get some minor problems easily, and I do not deserve to get cancer!" (ID10)
	"I always thought it was far away from me, so I did not think about . . . such a serious disease could so easily happen to me, so . . . Well, I did not think I would get it." (ID6)
	"Because the lump had been there for at least four years, I felt pain, I thought the painful lump was a benign and did not pay real attention to it." (ID9)
	"My sister-in-law also had it (hyperplasia) last year. At first, she was very painful at home. She then underwent a small operation in the hospital and recovered. My mother comforted me, 'you do not feel any pain. It is all right. Do not worry.' Thus, I did not care about it even though I have had breast hyperplasia for many years. I thought the symptoms of the disease mostly were just about hyperplasia." (ID2)
	"I dressed up carefully before I was going to the hospital, and it felt like I was going to have a vacation. After the first examination, the doctor said that I needed to be hospitalized, I knew that such a minor surgery can be discharged after a few days in the hospital. Then I went to the inpatient department happily." (ID7)
	"The doctor asked me 'If the final result is malignant, what are going to do?' I said 'Malignant? Haha . . . Wouldn't it be so coincident? How did others deal with it?' He said 'Remove the tumor.' I thought I would not get malignant, so I answered casually 'I will remove it too."' (ID12)
Foreboding	"The deputy director said that benign tumors like mine were relatively rare. I understood what he said. There must be something bad in my lump. At that time . . . It was unacceptable. I thought it would not be possible, the incidence of cancer is very low, no . . . no . . . no . . . not so unlucky." (ID8)
	"Although the doctor did not say it clearly at the time of the examination in the hospital, it can be seen that my examination result was definitely not good from his eyes and tone of expression." (ID3)
	"When I was in the hospital, I kept asking the doctor about the severity of my disease, but he didn't tell me. Then, I felt it *must* be a serious disease, otherwise why not tell me." (ID14)
	"The doctor examined my chest and said, 'There is such a big lump in it, why do not you know?' I said, 'I did not touch it at ordinary times. How could I know? Moreover, it was just under the nipple; how could I know!' Then, the doctor asked me to be hospitalized immediately. At that time, I had a bad feeling that something terrible has certainly happened to me." (ID1)
	"In the hospital, the doctor said, 'You wait outside, and family comes in.' I knew they must discuss my condition. I was scared when I was lonely outside. I thought it was definitely not a short illness." (ID5)
	"The doctor told me to go to the other room and then discuss the treatment with my husband. I had a premonition that the result must be horrible. I wanted to cry at that time." (ID3)
	"In fact, sometimes it was better to let patients know their condition than to hide the truth. Hiding my illness would make me experience worried and think boundlessly. Sometimes, when a patient suffers from an emotional collapse, she needs the doctor to enlighten and comfort her patiently; for example, there was no problem with his medical skills. However, I thought that his care and psychological counseling for the patients were also important. It did not mean how to enlighten me, but at least, he had to let me know what is going on, and light the psychological burden, this may be better." (ID9)
Unbelievable	"Did I get it at a young age? How did I get it at such a young age. It *must* be wrong." (ID3)
	"Are you kidding? Why? Why is me? I am such a kind person." (ID5)
	"I have been working hard, unlike the retirees who can eat, drink, and have fun without pressure or unlike the young people who do not worry about life. I have to raise my family. I have not enjoyed life yet. That is unfair! I cannot believe it." (ID13)
	"I have a lovely baby, and my husband loves me very much, I cannot accept that I have cancer. Life, family, and work are ruined, just like I was walking on the road and suddenly I was knocked to the ground by a person with a stick." (ID7)
	"When the doctor told me it was cancer, I suddenly lost my mind. I thought my body was always weak and did not belong to the type prone to cancer, but tears still flowed out at once. I cannot believe it!" (ID9)
	"As soon as I got the report, I cried. For the next few days, I kept thinking that this must be misdiagnosed. I wanted to find a new doctor to do the examination again. This was terrible; I really could not accept it." (ID8)
	"when I heard the diagnosis, I felt like a thunderbolt came out of a clear sky; I still do not react that I have cancer." (ID4)
	"A doctor's word makes me fall entirely into the abyss; life has never been so desperate, so dark . . . I feel my heart is broken." (ID2)
Lacking knowledge of breast cancer	"Oh, my God! I am going to die; I must go to die! If cancer can be cured, the doctor can excise the mass . . . it does not need chemotherapy. Why should I have chemotherapy? Why?" (ID3)
	"The doctor said I had to have chemotherapy eight times, chemotherapy in my perception, cancer needs chemotherapy, not far away from death, I'm scared to death! My god! I'm dying! I'm scared. I'm so scared!" (ID2)
	"I had always felt that cancer would die even after chemotherapy and surgery. I was going to die, sooner or later. Why does it waste time and energy to suffer from the hospital? I told my husband, 'Go, go, let us go home, I do not want treatment, I do not want to die in the hospital."' (ID10)
	"A man in the village died of cancer. I heard that after a long period of chemotherapy, he finally died. I just felt that I must be the same as him; I am so scared . . . I felt life is particularly gloomy and have no hope. Life had never been so desperate." (ID6)
	"During the few days of hospitalization, I was very anxious and could not sleep at night. On the fourth day, I rushed into the office and asked the doctor, 'You know I am not very good, why don't you give me an operation? You know my condition, why do not you arrange surgery for me?' Finally, the doctor arranged for me to undergo surgery next Monday. At that time, I felt less nervous than before. As if I had an operation earlier, cancer was more likely to be cured." (ID4)
	"At that time, the mood was uncontrollable, and I thought I am going to die, I will definitely die, and then . . . I cried with my baby girl and said, 'I am sorry, I cannot grow up with you'." (ID5)
	"At that time, my mood was out of control, thinking that I would die, I would certainly die, fear all day, insomnia every night. Even if I fell asleep, I had nightmares, woke up and cried all the time." (ID7)

speculations about their breast mass's seriousness, resulting in many negative emotions. As the participants said, "In the hospital, the doctor said, 'You wait outside, and family comes in.' I knew they *must* discuss my condition. I was scared when I was lonely outside. I thought it was *definitely* not a short illness (ID5). The doctor told me to go to the other room and then discuss the treatment with my husband. I had a premonition that the result *must* be horrible. I wanted to cry at that time (ID3)."

Some participants said in the interview that they were eager to know their condition. Such concealments could have made them anxious and depressed. They also strongly hoped to get more attention from doctors when they were out of control. One participant mentioned, "In fact, sometimes it was better to let patients know their condition than to hide the truth. Hiding my illness would make me experience worried and think boundlessly. Sometimes, when a patient suffers from an emotional collapse, she needs the doctor to enlighten and comfort her patiently; for example, there was no problem with his medical skills. However, I thought that his care and psychological counseling for the patients were also important. It did not mean how to enlighten me, but at least, he had to let me know what is going on, and light the psychological burden, this may be better (ID9)."

3.4. Unbelievable

When the participants first heard the diagnosis, everyone's knee-jerk reaction was denial that "the diagnosis *must* be wrong. I do not believe I have cancer." The psychological symptoms were that patients could not accept the occurrence of inconsistent things with their ideas, and they thought that once cancer occurs, it must lead to terrible consequences. This "awfulizing" idea was usually associated with the "demandingness" of patients on themselves or others, which was an irrational belief. One participant said, "When the doctor told me it was cancer, I suddenly lost my mind. I thought my body was always weak and did not belong to the type prone to cancer, but tears still flowed out at once. I cannot believe it (ID9)! As soon as I got the report, I cried. For the next few days, I kept thinking that this must be misdiagnosed. I wanted to find a new doctor to do the examination again. This was terrible; I really could not accept it (ID8)."

Traditional cultural values, hard work, and happiness have always existed in the Chinese outlook of life. Many of the participants interpreted the Chinese aphorism as "bitter before sweet," which means that future life will be perfect after suffering, as their belief in life. Thus, the participants had worked hard (bitter) and felt they could not have breast cancer until they enjoyed their life (sweet). One participant stated, "I have been working hard, unlike the retirees who can eat, drink, and have fun without pressure or unlike the young people who do not worry about life. I have to raise my family. I have not enjoyed life yet. That is unfair! I cannot believe it (ID13)."

They always worried about the consequences of breast cancer on their families. The family's happiness, including that couples were in love with each other, their children were courteous, and the whole family was healthy and happy, were also considered and affected. This study showed that the patients worried about their illness and their potential impact on their families diagnosed with breast cancer. Furthermore, they had less knowledge of the disease. They amplified the consequence of the terrible disease so that they refused to admit the fact that they have cancer: "I have a lovely baby, and my husband loves me very much, I cannot accept that I have cancer. *Life, family, and work are ruined*, just like I was walking on the road and suddenly I was knocked to the ground by a person with a stick (ID7)."

Cancer may put their health at risk, burden their families, and even take their lives away. They found it challenging to come to terms with cancer's effects on their lives and were overwhelmed. Cancer undermines their hopes for the future. As participants mentioned, "when I heard the diagnosis, I felt like a thunderbolt came out of a clear sky; I still do not react that I have cancer (ID4). A doctor's word *makes me fall entirely into the abyss; life has never been so desperate, so dark* . . . I feel my heart is broken (ID2)."

3.5. Lacking knowledge of breast cancer

Breast cancer in China is treated with Western medicine protocols that include surgery, chemotherapy, and/or radiation. The patients lacked knowledge of breast cancer treatment. When participants knew they had cancer, they were particularly concerned about their treatment options. They were eager to receive treatment earlier to get a better prognosis: "During the few days of hospitalization, I was very anxious and could not sleep at night. On the fourth day, I rushed into the office and asked the doctor, 'You know I am not very good, why don't you give me an operation? You know my condition, why do not you arrange surgery for me?' Finally, the doctor arranged for me to undergo surgery next Monday. At that time, I felt less nervous than before. As if I had an operation earlier, cancer was more likely to be cured (ID4)."

Without knowledge of cure rates, some patients subjectively believed that breast cancer was incurable: "I had always felt that cancer would die even after chemotherapy and surgery. I was going to die, sooner or later. Why does it waste time and energy to suffer from the hospital? I told my husband, 'Go, go, let us go home, I do not want treatment, I do not want to die in the hospital (ID10). At that time, the mood was uncontrollable, and I thought I am going to die, I will *definitely* die, and then . . . I cried with my baby girl and said, 'I am sorry, I cannot grow up with you' (ID5)."

Other Chinese patients panicked when they knew about the result and chemotherapy. They thought that chemotherapy equals death. Therefore, rather than thinking of chemotherapy as a possible cure, they believed that the prescription of chemotherapy automatically meant that the cancer was incurable and related to death: "Oh, my God! I am going to die; I *must* go to die! If cancer can be cured, the doctor can excise the mass . . . it does not need chemotherapy. Why should I have chemotherapy? Why (ID3)? A man in the village died of cancer. I heard that after a long period of chemotherapy, he finally died. I just felt that I *must* be the same as him; I am so scared . . . I felt life is particularly gloomy and have no hope. *Life had never been so desperate* (ID6)."

4. Discussion

This study aimed to understand the irrational beliefs of young women with breast cancer surrounding the diagnosis. Chinese women are influenced by their irrational beliefs on account of the traditional Chinese culture. All the participants in this study downplayed the risk and thought they would have cancer. Their statements might have reflected a lack of awareness of health,[23,24] such as the lack of knowledge of breast cancer,

its treatment, courses and, survival rates, but the main findings showed that the Chinese aphorisms, including "good are rewarded with good," "bitter before sweet," and "small disease keeps away serious disease," play a vital role in the formation of their outlook on life and the guidance of their lives, to even determine their responses to various situations they faced.

However, participants misunderstand these mottos, which express the hope for good wishes and are not rules of life. Thus, these methods were irrational to judge whether they would develop breast cancer or not. It was also tricky for clinicians during office visits to understand their irrational beliefs surrounding a diagnosis with its complexity and cultural influences.

Participants also reflected other characteristics of irrational beliefs, such as "demandingness" and "awfulizing."[25] All of them were not based on a scientific analysis but relied on their intuition, emotional state, empiricism, and the one-side idea that had been formed in the subconscious to conclude; for instance, they thought they surely did not get breast cancer, and would definitely be dead if they had cancer or chemotherapy. It was irrational to speculate whether something must will or must will not happen, judging by their subjectivities.

These irrational beliefs directly deepen young women's emotional distress or sorrow with breast cancer, especially the unfair idea.[26] The discovery of falling entirely into the abyss in this study also suggests extreme hopelessness and the idea of never returning at all from the cancer care chasm, never mind becoming whole again, and having an everyday family life.[27,28] This shows that these irrational beliefs would make patients trapped in their own negative emotions, and healthcare providers should consider existing and useful psychological intervention measures, such as the REBT, group counseling using Ellis ABC technique, mindfulness-based therapy, and metacognitive strategy,[10,17,29,30] to alleviate their psychological problems and reduce the impact of irrational beliefs on them.[31]

Our study also found some factors that may affect the delayed diagnosis of patients.[32,33] Overall, women may see a doctor when they find a lump, while they may not if the lump is not painful. If a small breast lump is seen as a minor illness or if a lump without pain is seen as noncancerous, then the belief is likely to delay diagnosis. This lack of action portends a more severe problem later, which is an example of a belief that could lead to a late diagnosis and should be a significant focus on patient education. Moreover, reassurance from family members that the lump is nothing is also harmful to the young women who delay seeking medical care.

When the patients visited the doctors for the breast examination, they carefully observed the healthcare providers' body language and behavior. This study reveals that the doctors' eyes, tone, expression, and behavior can significantly impact patients, especially healthcare providers who evade the patient and explain the diagnosis result to the family, which was the most common reason for the patients to feel powerlessness. Additionally, most patients experienced feelings of tension, fear, and helplessness. Therefore, many breast cancer patients need emotional support and psychological counseling.[34,35] However, although always available, psychological support for patients is less likely to be provided due to the heavy workload of healthcare providers or other reasons in China.[36]

In summary, most young women do not come to the hospital until they are seriously ill or they consider their lump as being a "major disease." Young breast cancer patients without knowledge of cancer or its treatment respond in various ways, which are irrational and extreme for doctors and nurses who have less traditional backgrounds and more Western ideas of medicine and healing. At every step of the diagnostic process, it is essential to teach the patient and their family using a holistic approach based on cultural beliefs.

Our study also has many strengths. Using a qualitative approach, we gained insight into the unique irrational beliefs experienced by this patient population. Psychealth care providers should value the psychological problems realized by these irrational beliefs. Our findings will be instrumental in guiding the communication and care delivery for young Chinese women with breast cancer. Our results may also help women understand their beliefs and examine how they might affect their health.

Our study also has several limitations regarding the irrational beliefs surrounding breast cancer diagnosis in young Chinese women. First, our study only recruited married women. Their experiences may not represent single women with breast cancer surrounding the diagnosis. Second, we only interviewed women treated at the breast surgery department of one hospital and did not study women undergoing surgery or long-term recovery. Their experiences may not be representative of women undergoing surgery and long-term recovery in other practice settings.

5. Conclusions

We believe that the current research findings have 3 essential contributions to the scientific literature. First, to the best of our knowledge, this is the first qualitative study to explore the irrational beliefs in breast cancer patients. Second, we found that cultural background is an essential factor affecting these irrational beliefs. Finally, many irrational beliefs primarily cause negative emotions and behaviors in breast cancer patients. These results have significant clinical implications for healthcare providers and educators to improve negative emotions and behavioral disorders in breast cancer patients. Our findings will also guide potential research and development, including exploring targeted interventions for breast cancer patients and paying attention to cultural beliefs, helping them understand their beliefs and examining how beliefs affect their health.

Acknowledgments

To the Ethics Committee of Huzhou Central Hospital for passing this research (2016–303).

Physicians, nurses, and research assistants assisted with this study and the patients who volunteered to participate in this study.

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