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Author

Naidu, Carol Kartika, Wiseman, Nicola, Hyatt, Amelia, Harris, Neil

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RESEARCH ARTICLE

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Barriers to Early Diagnosis of Breast Cancer amongst women in the Fiji Islands: A Qualitative Study

Carol Kartika Naidu^{1*}, Nicola Wiseman¹, Amelia Hyatt², Neil Harris¹

Abstract

Objective: To investigate the factors that may account for the delay in diagnosis and treatment in Fijian female breast cancer patients. **Methods:** This study adopted a qualitative approach to gain an in-depth understanding of individual barriers and participants' experiences within the Fijian context. Utilising semi-structured interviews, the study interviewed breast cancer survivors, community women, healthcare professionals, and traditional healers. **Results:** Two primary themes emerged from participants' narratives relating to barriers to early breast cancer detection: (1) individual-related factors and (2) healthcare system-related factors. Within these, five sub-themes were identified. For individual-related factors, these included: cultural & religious beliefs, social support, and awareness & misconception. For healthcare system factors, the sub-themes were: House of death and limited community accessibility to screening and awareness initiatives. **Conclusion:** The results highlighted the need for targeted interventions that consider the importance of cultural beliefs, improve awareness, and foster trust in the healthcare system.

Keywords: Early Diagnosis- Social Determinants- Healthcare-Seeking Behaviour- Cultural Beliefs

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Introduction

Based on data from the Global Cancer Observatory, in 2018, 2.1 million cases of female breast cancer were identified, representing nearly one in every four cancer diagnoses among women [1]. Each year, around 16 thousand new cancer cases and 10 thousand cancer deaths are recorded in Pacific Island Countries and Territories (PICTs). In these countries, breast and cervical cancers are the leading causes of cancer incidence and mortality in women, accounting for more than two-fifths of all malignancies [2].

Previous research in PICTs has revealed patient and healthcare system barriers to early breast cancer diagnosis, with variations across countries [3]. For instance, in Palau, low screening rates are partly attributed to women's discomfort during intimate breast and cervical cancer examinations [4]. In Papua New Guinea (PNG), limited resources and facilities have led to delayed medical care, often at advanced stages [5]. Additionally, in PNG, women's reluctance to engage with mammography services stems from cultural prohibitions against males touching females' bodies [6].

Traditional medicine falls under complementary and alternative medicine and is distinct from Western biomedical practices [7]. Many patients view traditional medicine as a safer alternative and believe that traditional healers can offer cancer cures [8]. However, delays in

treatment, often due to preference for traditional over conventional care, link with poorer survival rates [8,9].

A recent Fiji Women's Rights Movement study revealed that many Fijian women with breast cancer are diagnosed at advanced stages, and half of them do not seek medical care [10]. Despite available cancer screening, diagnosis, and treatment options, providing effective cancer care in Fiji remains challenging [11]. Currently, there is no literature available that explores the factors which lead to late-stage diagnosis of breast cancer in Fiji.

Fiji's population reached 884,887 with a growth rate of 0.6% between 2007 and 2017. According to the 2017 census women above the age of 50 accounted for 20% of the overall female population of 436,292. Reports state that the older population in the PICTs is rapidly growing, a trend that is paralleled by rising health issues, including breast cancer. Notably, literature highlights that individuals over the age of 50 account for nearly 80% of breast cancer diagnoses, pointing to a significant risk factor for older women in Fiji [12, 13, 14].

While studies have documented breast cancer in PICTs, the causes of late-stage presentation by Fijians remain unclear. Understanding why women delay treatment and identifying healthcare barriers is essential for creating prevention programs. Using a qualitative approach offers a detailed explanation of individual barriers and captures participants' experiences, shedding light on their challenges and perspectives. To the best of our knowledge,

¹School of Medicine and Dentistry, Griffith University, Gold Coast, Australia. ²Peter MacCallum Cancer Centre, Melbourne, Australia. *For Correspondence: carolkartika.naidu@griffithuni.edu.au

this is the first study to investigate the factors that may account for the delay in diagnosis and treatment in Fijian female breast cancer patients. The outcomes of this study will be used to inform the development of interventions and breast cancer health policy in this region.

Materials and Methods

Study Design

This study employed semi-structured qualitative interviews to address key research questions and explore unanticipated findings. The discussions centred on barriers to accessing breast cancer services and perceptions of breast cancer, aiming to identify unique factors and obstacles that hinder the early diagnosis of breast cancer in the female population of the Fiji Islands.

Participants

A purposive sampling strategy was employed to recruit participants across the following four cohorts. The objective was to include a sample that represented diverse perspectives while also sharing some common experiences. The inclusion criteria for each cohort were as follows:

1. Natural and traditional healers: Individuals who identify as providers of alternative medicine.
2. Female breast cancer survivors: (i) aged 18+, (ii) diagnosed with breast cancer, and (iii) completed relevant treatment.
3. Female participants with no history of cancer: Aged 18+.
4. Health professionals involved in cancer control activity in Fiji: Stakeholders in cancer control; Medical Practitioners and nurses who have experience working with breast cancer patients.

We selected breast cancer survivors as participants to comprehensively understand the factors contributing to delayed presentation of breast cancer symptoms and the barriers which hindered them from seeking healthcare. This approach enabled us to gain valuable insights into the real-life challenges faced by communities. Moreover, conducting interviews with women in the community, who have no prior history of cancer, helped us gauge the level of awareness regarding breast cancer and identify their health-seeking behaviours when confronted with common signs and symptoms. Traditional healers participation was sought to understand their practices and their alignment with community sentiment. Insights from healthcare professionals and their experience with treating women with breast cancer complemented the study, enabling data triangulation for authenticity and trustworthiness.

Recruitment

Breast cancer survivors who attended health check-up clinics organised by The Fiji Cancer Society at a local medical centre were invited to participate in the study. Rapport was developed with participants through informal discussions regarding the purpose of the study. Women from Western and Central Fiji divisions were approached in villages, while traditional healers were identified through recommendations or at religious places.

The Fiji Cancer Society also recommended healthcare professionals involved in cancer care. Participants received an information and consent form detailing the research, risks, confidentiality, and ethical guidelines.

Data Collection

Semi-structured interviews took place from November 2021 to March 2022, focusing on participants' health-seeking behaviours and cultural influences and was guided by a series of prompts tailored to the participant sub-groups. Face-to-face interviews were privately conducted by a Fijian Indian female PhD candidate (CKN) and digitally recorded and while most were transcribed in English, a Hindi-speaking researcher handled Hindi interviews. The approximate duration of the interviews was 20 minutes and the interviews took place with each participant sub-group until data saturation was reached.

Data Analysis

All recordings were transcribed verbatim, and NVIVO software (1.7.1) was utilized for coding and identifying emerging concepts from the data. The data were organized into sub-themes and further categorized into broader themes. The analysis was primarily performed by the author (CKN), and two co-authors (NW, NH) embellished, reviewed and confirmed the coding, themes, and sub-themes identified through the analysis process.

It is essential to highlight that data from traditional healer interviews only informed specific themes and quotations. This distinction arose because the questions posed to traditional healers were tailored around their cultural practices and knowledge of breast cancer. In contrast, other participant groups were able to more broadly focus on understanding the perceptions and attitudes that influenced healthcare-seeking behaviours. For instance, healthcare professionals provided insights based on their experiences with women undergoing treatment in a hospital setting, adding depth and context to the data. On the other hand, traditional healers feedback was more centred on their specific methods of treating women with alternative medicinal practices.

Results

The sample sizes for each cohort were as follows: community leaders and natural and traditional healers – 4, stakeholders involved in cancer control in Fiji – 5, female cancer survivors – 13, and female participants providing their perspective on cancer – 13.

Two primary themes emerged from participants' narratives regarding factors impeding early detection of breast cancer: (1) individual-related factors and (2) healthcare system factors. Within these, five sub-themes were identified. For individual-related factors, these were: cultural & religious beliefs, social support, and awareness & misconception. For healthcare system factors, the sub-themes were: house of death and limited community accessibility to screening and awareness initiatives (Figure 1) Themes in this study reflect broad patterns from the data, framing the interplay of different factors. Patient-related factors pertain to characteristics or

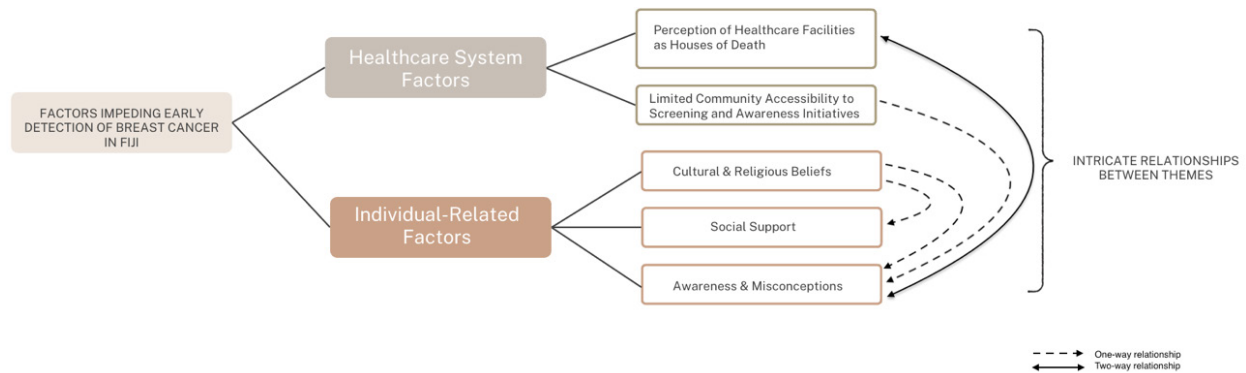


Figure 1. Factors Impeding Early Detection of Breast Cancer.

beliefs specific to individuals, while health system-related factors relate to barriers within the healthcare system. Sub-themes provide insight into the factors influencing women's decisions to seek healthcare for breast cancer symptoms. These perspectives primarily stem from Breast Cancer Survivors (BCS), Women in the Community who have no history of cancer (CW), Healthcare Professionals (HCP), and Traditional Healers (TH). Through analysing their experiences and triangulating the data, these patterns became evident.

Individual Patient Related Factors

This theme examines factors originating from the patients themselves. These factors were categorized based on individual challenges that deter women from seeking healthcare upon noticing signs and symptoms related to breast cancer.

Cultural & religious beliefs

In this study cultural and religious beliefs were seen to shape individuals' experiences, behaviours, attitudes, and decision-making processes. This influence extended to cultural practices, adherence to religious beliefs, engagement in rituals and healing practices, as well as the presence of taboos and stigmas within the community.

Many breast cancer survivors, faced with the symptoms of their condition, chose to delay medical diagnosis or treatment by resorting to alternative methods. These methods include the use of herbal medicine, religious rituals, massages, and even extreme measures like applying charcoal to their breasts. Often, these decisions are influenced by family members who recommend such practices and discourage patients from seeking conventional medical treatment, driven by the fear that they will succumb to the illness if they pursue modern healthcare.

For example, one participant revealed

"I waited for one year before my daughter helped me identify that it was serious. I was applying herbal oil prior to this. This was recommended by other Fijian women and she also offered to massage it and giving me the herbal medicine" (BCS06)

Interviews with women in the community revealed that although they trust the healthcare system to provide accurate diagnoses, they prefer to return to their villages

and rely on herbal medicine and traditional remedies to "cure" themselves.

For example, when asked if they felt a lump, what would be their course of action a participant answered:

"I would go to the hospital and then come back to the village to get treated" (CW01)

This sentiment was confirmed by healthcare professionals who reported that many women first attempt massages and herbal remedies before deciding to pursue western medical diagnosis and treatment.

Interestingly, during interviews with traditional healers, they expressed a firm belief in the effectiveness of their treatment methods. They claimed to possess powers that heal women, citing instances where patients previously told they would die of cancer were cured by their traditional methods, such as massages and herbal medicines.

"I got this gift from my mother, and she used to cure a lot of ailments and in our Fijian culture the powers are passed on and our touch can reduce the swelling. It's a gift that I have. I also give some herbal leaves to cover and treat the swelling breast and in many cases it works a lot and they get better" (TH03)

"I massage the breast, pray and provide with herbal medicine. I also grate charcoal, mix it in water and then apply it on the breast. Women who say that they can't be cured anymore by the hospital gets cured." (TH01)

Social Support

The sub-theme of social support reflects the importance of social networks, including family members and the community, on women and their decision-making processes. In the context of breast cancer, this manifests as encouragement by family members to seek out care, the informational support from community members, as well as the potential reluctance of family members influenced by cultural and traditional factors. This sub-theme represents the overall presence of social support in shaping a woman's behaviour when seeking healthcare.

The interviews shed light on the significant influence of family and community ties, which can have both positive and negative impacts on women's access to treatment and awareness about cancer symptoms. On one hand, many women expressed gratitude for their families' encouragement to seek medical treatment, such as chemotherapy. Their experiences often highlighted

how members of younger generations, like their sons or daughters, played a pivotal role in motivating them to have their symptoms checked, undergo surgery, or pursue chemotherapy.

"It was my daughter who encouraged me to seek medical help as she said it doesn't look good" (BCS06)

"My family encouraged me to get a surgery and I eventually got the lump out" (BCS05)

While these instances of positive influence were encouraging, many women also revealed feeling pressured by their family members to explore alternative treatment methods. In one instance, a breast cancer survivor shared her story of how a nurse from her community dissuaded her from seeking treatment, citing instances of women dying while undergoing hospital treatment.

"when the news spread through my family, so many people suggested that I get a massage and drink Fijian medicine. I also encountered a nurse who said to me that I should not go to the hospital because I would die, and she has seen a lot of cases where women do not survive." (BCS09)

"When I got home, I conveyed it to my family, and my husband suggested that I get herbal medicine, but I was adamant about getting treatment at the hospital" (BCS09)

Community women, however, shared that their knowledge about breast cancer primarily stemmed from village stories, with elder women urging younger generations to examine their breasts and be aware of symptoms. This highlights the positive impact of a close-knit community in spreading awareness and information.

"One day we were sharing stories, my aunty told me that when we have a shower we should try to touch and if we feel a marble in our breasts then we should go to the doctor. She was teaching us as it could be cancer" (CW03)

Health professionals note that women, after diagnosis, often consult family and husbands. If the family disagrees with the treatment, women might comply due to cultural norms. Additionally, men's concerns about mastectomies and change to their wives' bodies, can cause resistance to surgical procedures. Traditional healers highlighted that women in certain households might be reluctant to discuss symptoms, as cultural beliefs may view breast swelling as taboo or cursed, making them hesitant to confide in elder family members.

"In some culture, women are considered cursed and their swelling breasts are treated as a taboo" (TH03)

Awareness & Misconception

The sub-theme awareness and misconception reflects the level of awareness among women regarding breast cancer and its associated signs and symptoms. It further explores the presence of accurate or inaccurate information and the misconceptions that women may hold about breast cancer. These misconceptions can be influenced by cultural, patriarchal and religious beliefs, the availability of education in their community, or their exposure to reliable sources of information.

It is evident that a significant gap exists in the level of awareness among women regarding the signs, symptoms, and risk factors associated with breast cancer. During

survivor interviews, it became apparent that many women, upon initial diagnosis, often mistook their symptoms for a rash, breastfeeding-related swelling, or accidental breast injury. Consequently, they would turn to alternative treatments either because they perceived the condition as non-serious or due to their lack of knowledge about the possibility of it being breast cancer.

"I had a swollen breast and I would get priests to 'Jharai' it and thought it was because of child birth" (BSC05)

"I also think it was because sometimes when you play with a baby and they hit you with their head then it can happen and it can also happen due to stress" (BCS05)

When interviewing community women who had never experienced breast cancer, their understanding of the symptoms was limited, with some associating hair loss as a sign, likely confusing it with a side effect of chemotherapy. Moreover, women in the community sometimes viewed breast cancer as a form of punishment. For instance, one woman firmly believed after being told by her spiritual leader that questioning her husband's whereabouts put her at risk of developing breast cancer.

"We lose hair and that's the symptoms of cancer. Stomach-ache and headaches can symptoms." (CW04)

"a priest told me that if we are jealous of our husbands or if we stop them from seeing people or going to places, then women will get breast cancer" (CW02)

Healthcare professionals also reported encountering numerous cases where women had a limited understanding of cancer and were often unaware of where to seek help or what steps to take. Both community members and healthcare professionals agreed that the only time they witnessed significant awareness was during Pinktober, breast cancer awareness month, while the rest of the year lacked substantial ongoing information and initiatives.

However, a positive development in Fiji is the practice of conducting breast examinations for mothers visiting clinics for postnatal pap smears. Healthcare centres are utilizing this opportunity to examine the breasts of these mothers.

Health System-Related Factors

The theme also includes factors within the healthcare system or among healthcare providers that hinder patients' access to care.

House of Death

The sub-theme of 'house of death' reflects the perceptions women have regarding the hospital and the underlying reasons for their choice not to seek care there. The theme arose from women's lack of trust in the healthcare system and how this may shape their attitudes and behaviours towards seeking hospital care. One healthcare professional highlighted that the Indigenous population refers to the hospital as "vale ni mate," meaning "house of death." It was evident that this term has evolved due to the cyclic nature of delayed presentation to the hospital for treatment. This deeply entrenched stigma contributes to patients waiting until the disease has reached advanced stages before seeking medical help. By that point, it is often too late, and death becomes an

inevitable outcome, further reinforcing the association of hospitals with places of death.

The perspectives shared by survivor and community women regarding hospitals and their trust in the healthcare system were intriguing. Many women expressed a common belief that seeking treatment at a hospital would lead to their inevitable demise. Consequently, they preferred to explore alternative treatment options, convinced that going to the hospital meant facing death. However, community women mentioned that they would still turn to the healthcare system for advice, recognizing it as a reliable source of accurate information. However, when it came to actual treatment, they believed that seeking medical intervention would result in death, leading them to opt for herbal medicine or visits to priests.

"I would go to the health centre and get it checked out and if the doctor said that I have cancer then I come back to the village and do something like herbal. If I get diagnosed I do not want to get medical help, I would come home and do Fijian medicine"(CW07)

"I will go to the priest because there is no medicine or cure at the hospital and all they do is give you time to die" (CW02)

Community Accessibility to Screening and Awareness Campaigns

Interviews revealed limited access to breast cancer screening campaigns for women. For example, many survivors were unaware of prior screenings, especially in rural areas. While community women had breast check-ups during maternal health visits, few had specific screening opportunities. Additionally, those who knew of campaigns mainly linked them to Pinktober fundraising events, rather than community awareness or examinations.

"I had never heard of such diseases and had never seen promotional campaigns either" (BCS05)

"Only during the month of October and it's normally about early detection of cancer and they urge to visit doctors" (CW02)

Discussion

Early diagnosis of breast cancer symptoms is crucial in improving chances of survival and enhancing overall quality of life [15]. Understanding the social determinants of symptom recognition and healthcare-seeking behaviour is crucial for developing effective strategies tailored to the needs of specific populations. This study delved into the social determinants influencing women's decision-making in the Fiji Islands when faced with potential breast cancer symptoms. By uncovering these factors, we can understand and develop strategies tailored for specific population needs.

In this study, many showed a clear inclination towards traditional natural medicine over conventional treatments, a tendency augmented by the trust placed in traditional healers within their communities. These healers' confidence in and endorsement of their methods provide women with added reassurance. Unfortunately, a substantial number of women seeking such alternative care reach the terminal stages of the disease. This is very similar

in other low-middle income countries, where deep-rooted belief in one's culture and traditional practices is often cited as one of the reasons women delay seeking health care and present in very late stages of cancer [16, 17, 18].

We also discovered that trust, or lack thereof, in the healthcare system and hospitals played a role in reinforcing confidence in cultural and religious practices. Many women expressed reluctance to visit hospitals due to stories they had heard about people dying after seeking medical treatment. As a result, they turned to alternative medications even during the early stages of detection. Similarly, in Nigeria, fear, symbolised by the term "jejere" meaning "it will devour you," delays women attending hospital. These beliefs create barriers, leading to late-stage cancer diagnoses and increased mortality [19].

This vicious cycle perpetuates itself, as the outcomes they experience reinforce existing community sentiment. For example, a study conducted in Ethiopia saw the significant role lack of trust in healthcare professionals played in patient delays in the diagnosis of breast cancer [20]. Another in north-western Ethiopia found patients opting for herbal and spiritual remedies over conventional treatments due to the belief that cancer cannot be conventionally treated [21]. Our study mirrored this, with most patients consulting traditional healers first, turning to hospitals only after traditional methods failed. Early detection and intervention could have potentially offered treatable options, an issue which is made difficult by the limited screening programs available in the community.

The study revealed a significant lack of awareness within the community regarding the signs, symptoms, and risks associated with breast cancer, accompanied by various misconceptions. One notable finding from the results was that women believed questioning their husband's whereabouts could lead to breast cancer, with faith-based leaders being the source of this misinformation. This highlights the alarming extent of misinformation, especially considering the influential role faith-based leaders hold within the community as respected figures and sources of advice. It is interesting to consider that this might also serve as an indicator of patriarchal social structures in Fiji, potentially linked to the observation that men typically hold decision-making power when it comes to women undergoing mastectomy. Similarly, in Pakistan, low awareness and misconceptions, like fears of inadequate treatment, have led to delayed breast cancer diagnoses and treatment [22, 23]. Such misconceptions, as observed in our study and others, play a critical role in delaying diagnosis and treatment [23].

Moreover, the study highlighted the lack of information available to women. They expressed a lack of awareness about screening campaigns and the absence of accessible community-based screening facilities. Their only exposure to check-ups occurred during pap smears or family planning sessions. While these avenues are effective in reaching a specific group of women, they neglect those who are no longer of childbearing age or women seeking healthcare for other reasons. On a positive note, the influence of social support networks on women's health decisions was substantial. Younger family members, equipped with education and online resources, often acted

as advocates, encouraging their older relatives to seek medical care for concerning symptoms. This supportive trend is also seen in places like Nigeria, where family encouragement significantly influences health actions [17].

This study underscores the intricate relationships between themes, as several factors identified during interviews fit into multiple sub-themes. For example, while there is prevalent misinformation in the community regarding the causes of breast cancer, the study pinpointed faith-based leaders as a significant source of misinformation. The acceptance of such information is likely strengthened by deeply entrenched religious and cultural beliefs. Hence, women's choices are influenced by an array of factors, not just a single factor. This finding is in line with the World Health Organization's (WHO) Conceptual Framework for the Social Determinants of Health. In this framework, factors like ethnicity, education, income, and occupation often converge, shaping an individual's overall health perspective, choices and outcomes [24]. Recognising this interplay, it becomes essential when designing interventions to consider these interconnected elements and to develop approaches that include the cultural nuances of the community.

In light of these findings, it is crucial to develop targeted interventions that consider the importance of cultural beliefs, improve awareness, and foster trust in the healthcare system. Educational campaigns should focus on dispelling misconceptions and accessible functioning screening facilities need to be established to ensure that all women, regardless of their life stage or reasons for seeking healthcare, have the opportunity for early detection and intervention.

In conclusion, findings from this study offer insights into community factors affecting women's decisions on breast cancer symptoms, diagnosis and treatment in Fiji. Cultural and religious beliefs often overshadow conventional treatments, with traditional healers advocating alternative care preferences. Mistrust in healthcare, stemming from negative stories, leads to diagnosis and treatment delays until advanced disease stages. The research also highlights a community-wide lack of breast cancer awareness and limited accessible screening facilities, restricting early detection opportunities.

Author Contribution Statement

Conceptualisation: CKN, NW, AH, NH; Writing original draft manuscript: CKN; Data/reference curation: CKN; Preparation of revised manuscript: CKN, NW, NH; Review and submission of final manuscript: CKN, NW, AH, NH..

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Ethics

Ethics approval was sought from the Griffith University Human Research Ethics Committee (GU Ref No: 2021/839) and the Fiji Human Health Research & Ethics Review Committee (FNHRERC No: 39/2021).

Conflict Statement

The authors of this research have no conflicts.

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