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Research Article

Suicidal Ideation Factors and Coping Mechanisms Among Breast and Cervical Cancer Women in Harar, Ethiopia: A Qualitative Study

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Abstract

Background: Cancer-related suicidal ideations and coping mechanisms vary from country to country and region to region within a country. So, identifying these can help in interventions, thereby reducing suicidal risks, morbidity, and mortality. *Purpose:* The aim of this study was to explore suicidal ideation factors and coping mechanisms among breast and cervical cancer women in Harar, Ethiopia. *Methods:* A qualitative study was applied using an interview guide. The interviews were then transcribed verbatim and analyzed using an inductive thematic approach. The study was conducted in one large regional oncology center in Harar, Ethiopia. A purposive sample of 23 women (nine with cervical cancer and 14 with breast cancer) was individually interviewed, aided by a voice recorder and field notes between June and August 202023. *Findings*: Twenty-three women (nine with cervical cancer and 14 with breast cancer) were involved in the study. Six key suicidal ideation factors were explored, influenced by self-perception, family and society, income, cancer information, traditional healers, and witch doctors. Coping mechanisms included acceptance, religious practices, advice from friends, counseling from professionals, non-disclosure, and sports. *Conclusion:* Factors of suicidal ideation for cancer women (breast and cervical) emanated from self, family, society, income, and information, and they different coping mechanisms. Therefore, it is imperative to develop patient-family-societal, culturally sensitive, and inclusive programs that address factors contributing to suicide.

Keywords

Cancer, Suicidal Ideation, Dire Dawa

1. Introduction

In women, breast cancer continues to be one of the most frequent and deadly malignancies, despite ongoing treatment improvements [1-3]. Sub-Saharan Africa has the highest number of deaths related to breast cancer [4]. Similarly, in Ethiopia, the bulk of affected women are relatively young, which causes concern for Ethiopia and the communities in the research area [5-8]. Cervical cancer occurs on the cervix and is caused by the Human Papilloma Virus (HPV subtypes 16

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and 18), which is mainly transmitted through sexual contact [6].

Cervical cancer is also the other most common malignancy affecting women worldwide, mainly in Southeast Asia, Melanesia, South America, and sub-Saharan Africa 10. Cervical cancer continues to be a major public health problem, affecting thousands of women in Ethiopia [11].

In addition, cancer and suicide are serious public health problems worldwide, and people living with cancer are at high risk of suicidal behaviors such as ideation, planning, and attempts [12-15].

Accepting illness status, especially cancer, strongly influences treatment follow-up; its outcome and level of illness acceptance vary depending on the treatment method and patients [9, 10, 16]. Acceptance of illness improves the quality of life of women with cancer, regardless of the specific treatment method [16, 17]. Education, income status, and family structure are factors assessed as predictors of acceptance levels [16]. Illness acceptance can also be affected by living area (rural vs. urban) [18]. Women with breast and cervical cancer experience physical, emotional, community, and financial changes that reduce their quality of life [19-21].

The diagnosis and treatment of cancer often result in significant hopelessness and psychological distress [22, 23]. They express stress through different responses, both in psychological and behavioral terms, which resemble the symptomatology of worry [14, 20, 24]. Emotional distress following a diagnosis of cancer is normal and anticipated, but may manifest in some women at some point as a level of anxiety that significantly affects quality of life and coping, which is a risk factor for suicide [15, 25]. This is reflected in the fact that living in the countryside, having a history of traumatic experiences, having a paid job, and having symptoms of post-traumatic stress disorder [13].

Studies also suggest that some coping mechanisms by women with cancer, such as adaptive cognitive coping strategies, behaviors of acceptance, and shifting attention, are the best psychological adjustment [23, 26, 27]. However, younger age, lower education, shorter time since diagnosis, being widowed, living in rural areas, and undergoing chemotherapy are possible markers for patients with less adaptive coping patterns [28]. Interventions that promote participation in treatment decisions and a sense of meaning and peace are also suggested as coping mechanisms for women with breast cancer and, potentially, quality of life [29]. However, the coping mechanisms for women with cervical cancer lack literature since the majority of research is general rather than specific. Moreover, a few quantitative studies have identified that the magnitude of suicidal ideation among cancer patients is high in Ethiopia, which leads to poor adherence to treatment, worsening of their illness, and ending their lives [30-32]. However, the specific factors leading to suicidal ideation, particularly the most common cancers in women (breast and cervical), lack in-depth research. Therefore, this study aimed to explore factors of suicidal ideation and coping mechanisms via a qualitative study, which can help in self, family, and psychosocial interventions to reduce suicidal risks.

2. Methods

Study Setting and Design

The study was conducted at the Hiwot Fana specialized university hospital (HFSUH) oncology center in Harar city, which is located about 526 km away from Addis Ababa, the capital city of Ethiopia. HFSUH is a teaching hospital at Haramaya University that delivers wider health care services to approximately 5.2 million people in the catchment area. It has different service areas, including chronic disease OPD, emergency OPD, medical, surgical, pediatrics, psychiatry, gynecology, obstetrics wards, ICUs, and an oncology center. The interviews were conducted between June and August 2023.

Research Design

This was a qualitative, semi-structured interview involving cervical and breast cancer women at cancer treatment follow up at oncology center. This methodology was chosen because it helps describe what participants have experienced and is good at generating themes.

Sampling Strategy

Both study setting and participants were recruited using a purposive sampling technique. Participants were eligible to participate in the study if they were legally adults (18 or older years) and were followed up for cancer treatment (breast and cervical cancer). However, those who were severely ill and unable to provide a response were excluded.

Data Collection Methods

An interview guideline, observations (field notes), and audio recording were used for data gathering.

Ethical Consideration

Study participants were *interviewed after obtaining ethical clearances from the* Hiwot Fana specialized university hospital (HFSUH) oncology center. A written informed consent form was also obtained from participants, and all information obtained was kept confidential during all stages of the study. The collected data were used only for the purpose of the study.

Data Analysis

The investigators followed clear file naming, developed a data tracking system, and established and documented data transcription and translation procedures. The initial coding was performed by one of the researchers, and fine-tuning was performed by supporting researchers, both with experience in qualitative data analysis.

Before analysis, all interviews, field notes, and voice records were transcribed and translated to English. The authors transcribed each discussion verbatim and carefully checked each transcript for accuracy by simultaneously listening to the audio recording and reading the transcript. Notes taken during the interviews were incorporated into the final transcripts. The preliminary coding of transcripts was done using an inductive thematic approach. Then consistent codes were reduced into

groups and, subsequently, into themes. Finally, the themes were triangulated (interview, field notes, and audio records), and the document was thoroughly reviewed using the COREQ (Consolidated Criteria for Reporting Qualitative Studies) check list.

Operational Definitions

Suicidal ideation: is having a thought and attempt to kill oneself (due to having the cervical or breast cancer for whatever reason) [12-14].

Coping mechanism: thoughts and behaviors practiced to manage internal and external stressful situations (in this case, suicidal ideation) [19, 28].

Trustworthiness of the Study

In this study, to enhance trustworthiness, the pilot interview guide was tested two weeks before the actual interview with two participants. Two days of training were provided to interviewers regarding procedures, how to approach participants, interviewing sensitive issues, and using voice recordings. Diverse participants (age, cancer type and stage, residence) were included. In addition, interviewers participated in peer debriefing and member checking to enhance trustworthiness. All interviews were transcribed verbatim, and those conducted in the local dialect were translated into English for analysis.

Results

Participants' profile: Twenty-three women (nine with cervical cancer and 14 with breast cancer) were interviewed over a three-month period. The median age of patients with cervical cancer was 41 years (range 36-44) and that of patients with breast cancer was 51 years (range 46-58). The majority of the participants were married and multiparous (Table 1).

Table 1. *Demographic and obstetric characteristics of participants, Harar, Ethiopia, 2023.*

Characteristics		Cervical cancer (n=9)	Breast cancer (n=14)
Median age (in completed years), years (minimum-maximum)		41 years (36-44)	51 (46-58)
Median time since diagnosis, years (minimum-maximum)		1 (0.6-2)	1.4 (0.8-3)
Residence, n (%)	Urban	5 (55.6)	6 (43)
	Rural	4 (44.4)	9 (57)
Marital status	Married	7 (77.8)	5 (35.7)
	Widowed	1 (11.1)	4 (28.6)
	Divorced	1 (11.1)	5 (35.7)
Education level	No formal education	2 (22.20	2 (14.3)
	Primary level (1-8)	2 (22.2)	4 (28.6)
	Secondary level (9-12)	2 (22.2)	6 (42.8)
	Diploma	3 (33.4)	2 (14.3)
Occupation	Housewife	5 (55.6)	2 (14.3)
	Merchant	2 (22.2)	5 (35.7)
	Private employee	1 (11.1)	4 ((28.6)
	Government employee	1 (11.1)	3 (21.4)
Religion	Muslim	3 (33.4)	2 (14.3)
	Orthodox	4 (44.4)	3 (21.4)
	Protestant	1 (11.1)	5 (53.7)
	Catholic	1 (11.1)	4 (28.6)
Parity	1-2	2 (22.2)	10 (71.5)
	3-4	5 (55.6)	3 (21.4)
	>4	2 (22.2)	1 (7.1)

Factors of Suicidal Ideation

Six major themes were identified for suicidal ideation factors, which are linked to *self-perception, family and society, income, cancer information, traditional healers, and witch doctors.*

Self-perception

This study revealed that patients' self-perception is one factor in suicidal ideation. Distinct physical changes as a result of the cancerous stage, surgery (particularly breast), or a protruding lump near the cervix can all lead to psycho-emotional issues such as distress, which again lead to suicidal thoughts. The participants also experienced worry due to discomfort and insomnia, which ultimately resulted in suicidal thoughts. The following quotes illustrate these experiences:

"There were times I thought to kill myself. It hurts me after losing one breast and starting cancer therapy."

"The alteration hurts a lot, much like having a cervical lump that makes sexual activity difficult. I hurt when I think about how my husband accepts me or if he is going to have sex with other women."

Family and Society

When husbands start sexual relationships with other women, this leads both breast and cervical cancer women to suicidal ideation. The other is when husbands neglect to support (psychological and economic) spouses; this also leads them to suicidal ideation. Thus, both sexual and neglected support had a negative impact on their mental health and contributed to suicidal thoughts, particularly when they began having sex with women other than them. The following quotes illustrate these experiences:

"Once upon a time, I decided to commit suicide when I confirmed that my husband had sexual relationships with another woman in my neighborhood, a widow woman, hiddenly."

"Once the cancer was confirmed, I lacked support from my husband; he neglected me in everything: food, clothing, psychotherapy, and others. Lastly, after hearing that my husband married in another town, I was in a suicidal act."

Both familial and social snags contribute to suicidal thoughts. These include familial and social stigma and a lack of support from the family or society. Stigma after cancer is identified and a lack of support drives their hopeless thoughts and leads them to consider suicide. The following quotes explain this:

"I had already gone through numerous social isolations, such as during a wedding or birth day ceremony; that is why I chose to consider suicide. My family is also the same, but I choose to live despite their wrongdoing."

"I once committed a suicidal act, but after receiving counseling from doctors, I ignored it in the hopes that I would live and continue with my treatment. It was actually caused by my family isolating me because of my cancer, not anything else."

Cancer Information

When cancer patients do not have cancer-related information that is what it is, its treatment options and its cause as not due to cultural thought (due to sin) could act as a factor for suicidal ideations. The following quotes explain this:

"As you know, cancer treatment centers are limited; only one is available in this eastern Ethiopia, so I lack information about the cancer. I thought it was caused by my sin or familial sins, and I do not know its treatment. So, every time I was thinking to kill myself rather than living with a cureless disease."

"I was thinking cancer has no treatment and everyone will isolate me, which is a great burden for me and my family. Due to this, I was thinking of self-killing."

Income

Cancer-related expenditures, including transportation costs or not being at work, put them in financial trouble and drove them to consider suicide. A few participants shared their experiences of losing their jobs, usually without receiving any paid time off or assistance from the public or private sector. The following quotes explain this:

"I was to commit suicide last time due to lacking what to eat and for transportation to go to a popular traditional healer in a rural area."

"There are no public or private organizations for support. I stopped my work, so I had no income for my life. Due to that, I decided to kill my soul once up on a time."

Traditional Healers and Witch Doctors

Terrors created by traditional healers and witch doctors are the other identified factors of suicidal ideation for cancer women (breast and cervical). The following quotes explain this:

"When my suffering was great, although I am attending follow-up at this cancer center, I was forced to go to a popular traditional healer. At that time, the traditional healer created a terror in me, saying, 'Why are you late until you come to the death stage?' I told him that I was attending treatment at the cancer center. Then he said, "It is difficult and hopeless, but I will try and come on Monday still that let me collect traditional medicine'. Then I was shocked and decided to commit suicide."

"My grandma told me that witch doctors know everything better than doctors and traditional healers. Then, I went to the recommended witch doctor, who frustrated me, saying that your case is hopeless since the man who caused cancer to happen to you has died. During that time, I was thinking about how I would commit suicide."

Coping Mechanisms for Suicidal Ideation

Both women with cervical and breast cancer who had experienced suicidal ideation *disclosed some* coping mechanisms. *Acceptance and* religious practices, *advice from friends, and counseling* (psychotherapy from health professionals, psychology counselors, and religious fathers) *were the coping mechanisms used by the majority of participants. All these acts as coping mechanisms by increasing their future curative hope.* The following quotes illustrate these experi-

ences:

"Since my relatives isolated me after my cancer, I felt severe distress and decided to commit suicide, but my husband saved me and I started attending religious education, and now I accept the cancer case and am trying the treatment well."

"Since this is God's decision, what can I do? I think God has a plan to save my life; if it were not, I may die on the day I decide to commit suicide. So, pray to my God, and due to Him, I feel good and hopeful for a future cure.".

"I have been wondering that after cancer is found on me, my husband never has sexual intercourse. Because of this, I decided to commit suicide, thinking that I was a useless wife. However, two of my best friends came to my house, and they advised me a lot, so I cancelled the idea of suicide. Now, whenever I feel bad, I seek advice."

"I decided to commit suicide due to cancer, but my elder daughter made me get religious consultations with fathers. Then, when I hear religious consultations, I feel better."

"Once upon a time I was in a suicidal act, but after I got counseling from doctors, I ignored it with hope to live and attend my treatment. After that, whenever I feel bad, I seek medical psychotherapy or psychology counseling."

The other coping mechanisms were non-disclosure and sport. Non-disclosure of the cancerous part and cancer case information to anyone, such as relatives and neighbors, using covering clothes (for one breast surgery case) was the other stated coping mechanism. Few participants listed sport as their coping mechanism; this may be related to physiological relaxation, which is linked to nervous and hormonal release, euphoria, and reducing distress. The following quotes explain this:

"To avoid people asking questions about my cancer, I avoid public meetings, weeding ceremonies, birthday ceremonies, and others. or I cover or fill the cut breast place with artificial sponges or a breast holder to avoid people's questions."

"Because of cancer, I decided to commit suicide, thinking that I was a useless wife. But after seeing someone doing physical exercise, 'I know the person was an HIV/AIDS patient', then I started doing physical exercise. Really, this makes me free of any bad ideas as a suicidal commit."

3. Discussion

For a country with a national policy aimed at strengthening the quality of cancer care, like Ethiopia, it is fundamental to investigate the barriers for a better solution. Thus, this study focused on identifying s*uicidal ideation factors and coping mechanisms among breast and cervical cancer women* through a qualitative study. This is an important study, given the global effort to achieve measures against cancer elimination and reduction especially in low-resource countries. As a result, the present study explored Six key suicidal ideation factors, which are influenced by self-perception, family and society, income, cancer information, traditional healers, and witch doctors.

This study revealed that patients' self-perception is one factor in suicidal ideation. This is due to distinct physical changes as a result of a cancerous stage, surgery, or a protruding lump, which can lead to psycho-emotional distress and suicidal thoughts. *Other studies assure that* cancer is associated with sadness, worry, and hopelessness in cancer patients [20, 40]. Both cancer finding and treatment have a significant impact on patients' physical, psychological, and social well-being, as well as their overall quality of life [41]. This implies that women with breast and cervical cancer need psychological interventions such as counseling during diagnosis, surgery, and treatment follow-up to reduce their stress and worry that contribute to suicidal ideation.

Family and social issues, including stigma and a lack of support, contribute to suicidal thoughts. Cancer is considered a socially stigmatized disease in many cultures; however, some aspects of stigma are more prevalent than others [42]. Disease-related stigma is the stigmatization of an illness, which may be directed towards an individual or group of people with the illness [40]. Studies also agree with this finding, asserting that patients are stigmatized regardless of their surgery status [43-45]. This has detrimental consequences, from diagnosis to treatment completion [42, 46]. Cancer-related stigma results in low self-esteem, smaller social networks, less social potential to obtain support, and increased anticipation of social rejection and hopelessness, all of which negatively impact quality of life [40, 42]. This implies that the health sector, along with community leaders, need to increase awareness about cancer to reduce stigma against cancer patients.

Expenses associated with cancer, such as lost wages from missed work or transportation, caused financial hardship and even led to thoughts of suicide. Participants shared their experiences related to financial poverty for cancer-related expenses, which put them in economic trouble and drove them to consider suicide. Women with breast and cervical cancer experience emotional, community, and financial changes that reduce their quality of life [19-21]. This implies that the government, and other charitable organizations support cancer patients.

Lacking accurate information about cancer, such as the cause and treatment options, influences suicidal ideation. Studies confirm that cancer patients experience more psychological distress and hopelessness than patients with other forms of disease [14, 15, 20]. implies that health professionals need to provide cancer-related information to them through different media, templates, and others.

Moreover, the present study identified two new significant contributing factors that lead to suicidal ideation in women with breast and cervical cancers. These were husband-related and *terror caused by traditional healers and witch doctors.* Husbands engaging in sexual relationships with other women and neglecting support have been found to lead to suicidal

ideation, negatively affecting mental health. *However, this requires further study in various populations.*

Furthermore, the present study identified coping mechanisms for women with cervical and breast cancer who experienced suicidal ideation, including *acceptance, religious practices, advice from friends, counseling from professionals, non-disclosure, and sports.*

Studies also suggest that some coping mechanisms by women with cancer, such as adaptive cognitive coping strategies, behaviors of acceptance, and shifting attention, are the best psychological adjustment [23, 26, 27].

Religious practices, advice from friends, counseling from professionals were identified as coping mechanisms. A study also revealed that interventions that promote participation in treatment decisions and a sense of meaning and peace suggested as coping mechanisms for women with breast cancer [29].

In this study, non-*disclosure* (cancerous part and cancer case information) to society was one of the coping mechanisms for some participants, which they stated created another terror or stress to them. In contrast, a study in China identified that non-disclosure of cancer increases self-blame, which leads to emotional distress among cancer survivors [47]. This implies that culturally appropriate interventions are important for reducing the negative impact of disclosure versus non-disclosure [33-39]. One study implies that self-efficacy and coping mechanisms have a concurrent positive impact on the quality of life of cancer patients [19]. Other studies revealed "negative copers' as coping mechanism which combines emotion, cognition, and behavior, which help them cope with stressful events and feelings of hopelessness [22, 28]. Furthermore, unlike the prior studies available so far, the present study explored sport as a coping mechanism for women with cancer (cervical and breast). This finding implies the need for follow-up interventions to improve coping mechanisms based on the status of individuals with cancer.

Consequently, the present study findings have implications for society, healthcare practice, and research. *Health service leaders* and staff need to consider sociocultural factors of women in health care services, including addressing misperceptions, and counseling what to do as a coping mechanism. This includes addressing attitude, communication, and suicidal ideation factors, which have implications for health service practice to achieve the SDGs in the reduction of cancer and cancer treatment barriers by the year 2030. The societal implications include the need to address community awareness to clear misperceptions and stigma ("breast and cervical cancers have diagnosis and treatment"), and social, psychological, and financial support.

Moreover, the research implication includes the need for future research on a large sample size and from different perspectives (healthcare service providers, oncology center administrators, and family) to provide further evidence.

Study strengths

The study considered multiple variables to increase representativeness (the study purposively included participants from rural and urban areas, different age groups, cultures, and religions. A more diverse sample of interviews conducted from patients (breast and cervical cancer). The accuracy of the data was improved by the use of primary data, and experienced data collectors. The study design enabled in-depth data collection about the suicidal factors.

Study Limitation

The study included only breast and cervical cancer patients and their perspectives, this was a limitation.

4. Conclusion

Factors of suicidal ideation for cancer women (breast and cervical) emanated from self, family, society, income, and information, and use different coping mechanisms. Therefore, it is imperative to develop patient-family-societal, culturally sensitive, and inclusive programs that address factors contributing to suicide.

Abbreviations

HPV	Human Papilloma Virus
SDG	Sustainable Development Goal

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Author Contributions

Aminu Mohammed Yasin: participated in conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Software, Resources, Supervision, Validation, Visualization, writing original draft, Writing review and editing.

Neima Redwan Abdu: Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Software, Resources, Supervision, Validation, Visualization, writing original draft, Writing review and editing.

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Ahmedin Aliyi Usso: Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Software, Resources, Validation, writing original draft, Writing review and editing.

All authors agree to take responsibility and be accountable for the contents of the article, agree on the journal to which the article will be submitted, and read and approve the final manuscript.

Ethical Approval and Consent to Participate

Ethical approval was obtained from the Health and Research Ethics Committee of the Hiwot Fana Specialized University Hospital (File-HFSUH-10/May/2023). Written informed consent was obtained from study participants. All protocols were carried out in accordance with relevant guidelines and regulations from Helsinki.

Declaration

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

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Data Availability Statement

The datasets collected and analyzed for this study are available from the corresponding author and can be obtained upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

Appendix

Appendix I: Preamble

Thank you very much for meeting with me today and agreeing to participate in this interview. I want to remind you that what you say here is confidential and will not be linked back to you or your family or identify you in any way. I recorded this interview so that I could transcribe it. This means that I will type out the words said in this interview into a secure document for analysis. There were no identifiers of the transcripts. De-identified transcripts will be accessed by other members of the research team to perform the analysis. The purpose of this interview is to explore your prior experiences relating to your medical illness to better understand and help with interventions in health care services. We are here to learn from you, so anything you have to share is welcome. There were no correct or incorrect answers.

Appendix II: Interview Guideline

Good morning or afternoon... Thank you once again for your willingness to conduct our interviews. Can I begin the interviews?

How do you define your illness after being diagnosed?

How have you been feeling after the diagnosis?

How do you see the treatment, your relationships with husband, family, society?

How do you see your life in the future?

Have you ever experienced hopeless situation? Why? What was your decision?

What do you do when you experience hopeless, downhearted thoughts or ideas?

We really appreciate your time and insight. Thank you once again.

Really, to the last, before we wrap up anything you want to say. Is there anything else that you think we should know?

Thank you very much!

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