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Psychological experiences and coping strategies among women with precancerous cervical lesions ineligible for ablative therapy: a qualitative study

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Abstract

Background

Cervical cancer (CC) remains a significant public health concern in Kenya, with only about 40% of age-eligible women accessing screening services. Women with precancerous cervical lesions who are ineligible for same-day screen-and-treat with thermal ablation often face multiple challenges beyond treatment costs that may delay timely linkage to care. Despite this, there is limited published evidence on the psychological and psychosocial experiences of these women, as well as the coping strategies they employ during this period.

Methods

Between September 2024 and February 2025, we conducted in-depth interviews (IDIs) at ten reproductive health clinics in Kenya among women with abnormal cervical cancer screening results ineligible for ablative therapy who were referred for further treatment. The IDI guide explored women's psychological and psychosocial experiences and coping strategies. Thematic analysis was used to analyze the data

Results

We interviewed 20 women with a median age of 40 years (interquartile range [IQR]: 35–44); 35% (7/20) were married, and half (10/20) had received treatment. Reactions to screen-positive results included denial, with some questioning why they screened positive despite having no prior symptoms, fear of progression to cancer and death. Anxiety during linkage to care was driven by unclear referral instructions and health system frustrations, such as delays in accessing treatment due to multiple clinic visits and healthcare provider unavailability. Women expressed fear of treatment including concerns about physical exposure, femininity, and pain during surgical procedures such as hysterectomy, and myths and misconceptions that associate treatment with infertility or death. Emotional relief followed treatment with improved self-confidence and social interaction. Women coped through shifting perspectives and prioritizing health, trust in healthcare providers, social withdrawal, individual information-seeking and social support.

Conclusions

Women diagnosed with precancerous cervical lesions who are ineligible for ablative therapy face considerable psychological distress, including fear and anxiety, as they navigate treatment. Access to care is shaped by facilitating factors such as social support and trust in healthcare providers but is hindered by health system challenges and stigma. These findings underscore the need for integrated

cervical cancer care that addresses psychological needs, improves referral clarity, and strengthens health systems to enhance timely linkage to care.

Introduction

Cervical cancer is one of the few preventable cancers that can also be cured if detected early (1). Yet, it remains the fourth most common cancer among women worldwide (2, 3). According to the World Health Organization (WHO), 2020 global estimates, there were 604,000 new cases and 342,000 deaths from cervical cancer, with approximately 90% of incident cases and deaths occurring in low-and-middle-income countries (LMICs) (4). Cervical cancer remains a significant public health problem, particularly in Kenya and other sub-Saharan African settings, where low screening coverage and late-stage diagnosis contribute to high morbidity and mortality among women (5–7).

Cervical cancer prevention programs have expanded in many LMICs (8, 9), with increased emphasis on same-day screen-and-treat for precancerous cervical lesions using ablative modalities, such as thermal ablation, to minimize loss to follow-up and improve treatment access (10, 11). However, not all women who screen positive are eligible for ablative treatment. Women with cervical lesions that encompass more than 75% of the transformation zone or otherwise ineligible for ablative therapy require referral for excisional procedures such as the Loop Electrosurgical Excision Procedure (LEEP) (12–15). Evidence from a study in Zambia reported that approximately 28% of screen-positive women are ineligible for thermal ablation (16). Additionally, a randomized trial in India found that 15.6% of VIA-positive, HPV-negative women and 5.4% of HPV-positive, VIA-negative women were ineligible for ablative treatment (17). These findings indicate that a notable subset of women requires non-ablative care. Compared to same-day treatment with thermal ablation, excisional treatment often involves more invasive clinical interventions, longer care pathways leading to loss to follow-up, and increased interaction with the health system (12, 15). Ensuring effective linkage to and follow-up care for patients referred for non-ablative treatment is critical, although this phase of cervical cancer prevention has received less programmatic attention than initial screening in many resource-constrained settings (12, 18, 19). Beyond clinical complexity, seeking referral treatment may generate psychological and social stressors as women navigate referral systems and procedural care that are not always responsive to their informational and emotional needs.

While existing literature has largely focused on screening uptake, treatment acceptability, and clinical outcomes, limited attention has been paid to the emotional and social dimensions of care for women referred for non-ablative treatment. This qualitative study explored the psychological and psychosocial experiences and coping strategies employed by women requiring non-ablative treatment for precancerous cervical lesions.

Methods

Study design and setting

We conducted a cross-sectional qualitative study using in-depth interviews (IDIs) with women who underwent cervical cancer screening through the TIBA study (ClinicalTrials.gov, ID: NCT05472311. Registered on 2022-06-10. https://clinicaltrials.gov/study/NCT05472311.) and subsequently received abnormal screening results requiring referral for further treatment. The TIBA study evaluated a same-day screen-and-treat approach using thermal ablation and was implemented through a stepped-wedge cluster randomized trial in Kenya (13). The study was conducted within three counties in Central Kenya including Embu, Murang'a and Kiambu across ten health facilities.

Participants and recruitment

We purposively sampled women who received abnormal cervical cancer screening results, were ineligible for thermal ablation, and were subsequently referred to healthcare facilities with the providers and equipment needed to offer excisional treatment options such as LEEP and/or hysterectomy. Women were recruited from ten reproductive health facilities where the TIBA study was conducted (13). Eligible women were identified by facility staff providing cervical cancer screening or treatment services at the respective facilities. Interested women were then approached by the research team, provided with study information, and invited to participate. Those who agreed provided written informed consent before enrolment. To capture variation in treatment experiences, we selected women who had accessed referral treatment (n = 10) and those who had not yet received referral treatment at the time of the interview (n = 10). No women who provided consent withdrew after enrolment. Twenty women were recruited and completed their IDIs. Recruitment continued until the research team determined that thematic saturation had been reached, indicated by the absence of substantially new themes or insights emerging from subsequent IDIs.

Data collection

Between September 2024 and February 2025, we conducted IDIs at reproductive health clinics in Central Kenya among women who had an abnormal cervical cancer screening result and were referred for treatment for precancerous cervical lesions that were ineligible to ablative therapy. A semi-structured IDI guide was developed to explore participants' psychological and psychosocial experiences as well as coping strategies as they navigated the referral process and sought to access treatment services. The guide was pilot tested with women who were not part of the study sample to assess the clarity, relevance, and appropriateness of the questions and was revised based on the feedback received.

IDIs were conducted in person in either Swahili or English, according to participants' preference by Kenyan qualitative researchers (authors PO, MNG, and CC) with extensive experience in qualitative and cervical cancer-related research. IDIs were conducted in private spaces based on the participants' preference, and no non-participants were present during the interviews. Repeat IDIs were not conducted. Field notes were documented during and immediately after each IDI to capture contextual observations, non-verbal cues, and reflections that informed subsequent analysis. All IDIs were audio-recorded,

transcribed verbatim, translated into English where necessary, and each lasted for approximately one hour. Transcripts underwent quality checks prior to analysis. Transcripts were not returned to participants for review or correction, and participants were not involved in subsequent validation of the transcripts or study findings.

Research Team and Reflexivity

IDIs were conducted by three Kenyan qualitative researchers (PO, MNG, and CC), comprising one male and two female researchers with extensive experience in qualitative research and cervical cancer implementation studies. PO and CC are social scientists with bachelor's degrees in environmental studies and public health, respectively, while MNG is a research assistant with a bachelor's degree in Sociology. All interviewers had prior training in qualitative interviewing, research ethics, and conducting interviews on sensitive health topics. They had no clinical role in participants' care and were not involved in delivering the TIBA Study intervention, reducing potential power imbalances during interviews. Before each IDI, interviewers introduced themselves, explained the purpose of the study, and clarified that participation was voluntary and would not affect participants' clinical care. Throughout analysis, the research team held regular reflexive discussions to examine how their disciplinary backgrounds and assumptions might influence interpretation and to ensure that findings remained grounded in participants' narratives.

Data analysis

Data were analyzed thematically using an inductive and deductive thematic analysis (20). First, the same team members who conducted the IDIs immersed themselves in the data by repeatedly reading the interview transcripts. They then independently conducted open coding on the same subset of transcripts to identify participants' psychological and psychosocial experiences and coping strategies. The analysts compared their coding and refined the codebook through consensus by clarifying code categories and definitions. The remaining transcripts were then equally distributed among the three coders (PO, CC, and MNG), who met regularly to discuss and resolve coding challenges and refine the codebook as needed. Coding was conducted using Dedoose version 9.0.107 (SocioCultural Research Consultants, LLC, USA). After all transcripts had been coded, the analysts reviewed the data within each code, refined categories through iterative discussion and consensus, and developed the final themes.

Trustworthiness of the Study

Credibility: Credibility was enhanced through purposive sampling to capture variation in treatment experiences, pilot testing and refinement of the semi-structured IDI guide, iterative data collection and analysis, and regular discussions among the research team to refine codes and interpretations. Verbatim

participant quotations are presented to support the findings and demonstrate their grounding in participants' accounts.

Transferability: Detailed descriptions of the study setting, participant characteristics, sampling and recruitment procedures, data collection, and data analysis procedures are provided to enable readers to assess the applicability of the findings to similar contexts.

Dependability: Dependability was supported through systematic documentation of the data collection and data analysis procedures, iterative refinement of the codebook, and regular team discussions to review coding decisions and resolve discrepancies.

Confirmability: Confirmability was enhanced through reflexive discussions among the research team and by repeatedly comparing codes, categories, and emerging themes with the original transcripts to ensure that interpretations remained grounded in participants' accounts.

Ethical approval

This study was approved by the Scientific Ethics Review Unit at the Kenya Medical Research Institute (SERU-KEMRI No. 4923) in Nairobi, Kenya, and the Human Subjects Institutional Review Board (STUDY00014200) at the University of Washington, Seattle, USA. The study was conducted in accordance with the ethical standards outlined in the Declaration of Helsinki. Written and verbal informed consent was obtained from all women participating in the study. The consent forms clearly stated the purpose of the study, that it was based on voluntary participation, and that participants could withdraw from the interview at any time. All study materials were de-identified, stored in password-protected files, and only accessed by the study team. The data obtained were used solely for scientific purposes

Results

Participant characteristics

From September 2024 to February 2025, we conducted IDIs with 20 purposively sampled women who screened positive for precancerous cervical lesions and were ineligible for thermal ablation. The median age was 40 years (interquartile range [IQR]: 35-44 years), 35% (7/20) were married, half (10/20) had received treatment, and the median years of education was 12 (IQR: 8–14) (**Table 1).**

Table 1: Participant demographics (N=20)

Characteristics	Participants (n=20)
Age in years (Median (IQR))	40 [35-44]
Marital status	
Married	7/20 (35%)
Not married	8/20 (40%)
Separated	4/20 (20%)
Widowed	1/20 (5%)
Treatment status	
Treated	10/20 (50%)
Type of Treatment received	
Loop Electrosurgical Excision Procedure (LEEP)	6/10 (60%)
Total abdominal hysterectomy (TAH)	1/10 (10%)
LEEP, TAH	3/10 (30%)
Years of schooling Median (IQR)	12 [8-14]

IQR: Interquartile range

Qualitative findings

Overall, women reported a range of psychological and psychosocial experiences, as well as coping strategies **(Table 2).** Psychological experiences encompassed denial of screen-positive results; fear of progression to cancer and death; fear of treatment; anxiety and uncertainty upon referral; concerns about physical exposure and femininity during hysterectomy; and relief following treatment. Psychosocial experiences included family and social network support, both emotional and financial (including loans or fundraising to afford care), healthcare system frustrations, and stigma. Women reported coping through shifting perspectives and prioritizing health, trust in healthcare providers, social withdrawal and disruptions to daily activities, individual information-seeking, as well as spiritual and social support, as discussed below

Psychological experiences

Denial of a positive screening result: Women, both treated and untreated, initially experienced denial after receiving positive screening results. Some interpreted screen-positive results as invasive cancer and

found it difficult to accept the diagnosis. Others questioned why they had screened positive for precancerous cervical lesions in the absence of any prior symptoms. This period was marked by confusion and hesitation, with some pausing decision-making on next steps as they struggled to process the diagnosis and cope with emotional distress. These reactions were most pronounced immediately after receiving their screen-positive results.

"So, I asked myself if there is no way you can tell...does it mean this thing does not have any signs. I just told myself, no, I do not have this disease…the lack of acceptance, you are still in denial, I am not sick" **-42-year-old, single, treated**

Fear of progression to cancer and death: Women reported that living with a diagnosis before treatment led to persistent distressing thoughts. Among those who had not yet accessed care, these centered on fears of progression to cancer and death. Some reported that upon being told they had screened positive, they *'just saw death'*, and doubted the possibility of cure. Those who received treatment described similar distress prior to care but reported some reduction in these thoughts after treatment, although concerns about recovery sometimes remained. Worry about progression and death also strained personal relationships and parenting, with some women expressing concern about their children's welfare in the event of death, thereby adding to their psychological burden, particularly among those who had not accessed treatment. These fears were compounded by unclear explanations and perceived insensitivity in how results were communicated by healthcare providers. A woman reported she was just told her result was 'not good' and that she needed treatment without further explanation, which led her to believe she had cancer.

"He told me that my cervix was not normal. I was very surprised, and I felt I was going to die. Until he told me that it was not cancer." **-41-year-old, single, untreated**

Fear of treatment: Anticipation of treatment triggered fear, particularly fear regarding potential pain, bodily harm during procedures such as LEEP and hysterectomy, and complications such as excessive bleeding. Myths and misconceptions about treatment, including associations with death or infertility, further amplified emotional distress. Among women who had not yet accessed treatment, these fears were largely shaped by uncertainty about whether they would eventually receive treatment, what the treatment experience would entail, and information they had heard from others, which intensified anxiety. Some women reported hearing that treatment is painful and may lead to excessive bleeding, further compounding their fear. In contrast, those who underwent treatment described fear that was reinforced by their own experiences during the procedures. They reported feeling physically exposed during LEEP and hysterectomy procedures, and some expressed embarrassment related to being attended to by multiple or younger healthcare providers. Some women described their experiences of anesthesia or postoperative pain as highly distressing, further shaping negative perceptions of treatment.

*"The challenge was the fear, how is that process, how is it going to be done, how long is it going to take? After treatment, how am I going to feel? You know I got treated and started developing other problems such as bleeding and all that...I felt traumatized."***-38-year-old, married, treated**

Additionally, some women reported changes in self-perception, including concerns about femininity and womanhood, questioning whether they would remain “complete” women after hysterectomy.

“*Yes, I remember that one question I asked her: 'Will I be a full woman without my uterus? Will I still have the hormones of a woman?' Then she told me it would not interrupt anything; I will just feel like a woman even after that.”***-42-year-old, single, treated**

Anxiety and uncertainty after referral: After a screen-positive result, women reported anxiety related to unclear referral instructions and delays in accessing treatment resulting from multiple clinic visits and the unavailability of healthcare providers. Uncertainty about where to begin or what steps to take after referral contributed to persistent worry even when healthcare providers were trusted to deliver treatment. Some women reported not receiving referral documents to present at the referral facility, leading to confusion; others were unaware of the referral location or how to get there. For women who eventually accessed treatment, this anxiety was most intense during the waiting period and reduced after treatment. In contrast, women who had not yet accessed treatment described prolonged uncertainty that disrupted their daily activities and expressed concerns about the consequences of delayed treatment. Some reported being unable to carry out their usual activities, as they reported persistent worriers. Others questioned the value of continuing to work while uncertain about their survival and whether they would live to enjoy the benefits of their efforts. While waiting for appointments or guidance, women described feelings of helplessness, which were particularly pronounced among those without a clear treatment plan.

*“For example, when I was referred, I kept wondering, now that I have been referred here without even knowing where to start, which procedure to follow. It was just confusing and stressing.”***-46-year-old, married, untreated**

Relief following treatment: Women who accessed treatment reported ‘peace of mind’ following treatment, which they noted increased self-confidence and improved social interaction. Emotional recovery occurred over time, although some continued to reflect on earlier stress, embarrassment, and fears related to treatment experiences. In contrast, women who had not yet accessed treatment expressed a desire for similar relief but continued to report uncertainty and persistent worry about their health.

*“I felt settled when I was told I am okay. For your peace of mind there is a surety that I don’t have that…they have screened my breast they are okay, and the cervix is okay, you find that you have peace of mind.”***-35-year-old, separated, treated**

Psychosocial experiences

Family and Social Network Support: Some women reported receiving emotional, logistical, and financial support from relatives and sexual partners. Some family members expressed disbelief after positive screening results and the referral for further treatment, whereas family members with some medical knowledge offered reassurance and guidance on next steps. Concerns about privacy and fear of

burdening loved ones led some women not to disclose their diagnosis and instead manage their treatment privately. Experiences with sexual partners were similarly mixed; some partners provided emotional and financial support and actively participated in treatment decision-making, while others withdrew entirely. Beyond immediate family, broader social networks including church members and peers assisted with household responsibilities such as paying rent and caring for children or farms, thereby reducing caregiving and financial burdens.

*"Family members supported me with household duties I was doing; they would employ someone to help with household chores."***-39-year-old, single, untreated**

Health system frustrations: Women reported heightened anxiety and reduced trust in the healthcare system due to repeated delays in receiving treatment. These delays were attributed to multiple clinic visits, long waiting times, follow-up appointments scheduled on working days, unavailability of healthcare providers, and prolonged turnaround times for results. Some women reported visiting referral facilities only to find that providers were on strike or unavailable due to competing duties. Others reported delays in receiving results to guide further care; for instance, some experienced delayed treatment due to late receipt of their Pap smear results, requiring multiple return visits to obtain them. Among those who had accessed treatment, frustration was due to delays experienced before receiving treatment, while those yet to access treatment described ongoing uncertainty and continued waiting as sources of distress. Crowded clinic spaces further contributed to emotional discomfort, particularly for women still navigating the system to access treatment. Additionally, some women were unable to attend follow-up appointments because they were scheduled on working days.

"*Also, like the way I was sent to go see the doctor, by the time I saw the doctor, I already had a very difficult time…when they were on strike, I did not manage to see the doctor."* **46-year-old, married, treated**

Stigma and Fear of Judgment: Women reported experiencing both actual and anticipated stigma after screening positive. Those who disclosed their diagnosis described being told they were either cursed or had multiple sexual partners. Among women who accessed treatment, stigma was sometimes encountered before treatment but reported to have lessened afterward, although concerns about gossip occasionally persisted. In contrast, women who had not yet accessed treatment described ongoing fear of stigma, which influenced their hesitation to disclose their diagnosis, as they feared being judged or talked about.

*"Mostly they told me that a woman without a husband is the one who gets cervical cancer or has multiple sexual partners, yeah, those are the two things I have heard."***–42-year-old, single, treated**

Coping strategies

Shifting perspective: Among women who accessed treatment, acceptance was driven by a desire to survive and remain present for their children. Those who had not yet received treatment expressed

similar motivations but reported ongoing hesitation due to fear or uncertainty. Some chose not to disclose their diagnosis to protect family members from emotional distress.

*"Even if LEEP could not have worked, I was ready to do away with the uterus, or the whole procedure to be done for the sake of bringing up the two kids."***-40-year-old, separated, treated**

Prioritizing health: Prioritizing health over work or other responsibilities helped those receiving treatment adhere despite financial and logistical challenges, whereas those still awaiting treatment focused on mobilizing resources and preparing mentally. Mental preparation to receive treatment was described as strengthening resilience**.**

*"Because I couldn't work when I am needed because I saw this process is important to my health and for my life. So, I had to stop completely what I was doing to attend to the processes."***- 42-year-old, single, untreated**

Spiritual support: Women, both treated and those yet to access treatment, received emotional support through spiritual beliefs, with some reporting turning to prayer as a source of healing. Some also believed God was in control of health outcomes and submitted to 'the will of God' when faced with challenges.

"*…because apart from seeking medical advice and treatment, I know I can pray and get healed*."**- 35-year-old, separated, untreated**

Information seeking: Women reported searching for information from various sources, including online searches, relatives, friends, and peers to fill information gaps and manage their anxiety. This was most common among those who felt the information provided by healthcare providers was inadequate and sought external sources to address their concerns.

*"I was not very satisfied because you see if they would have done the whole process I would have been satisfied and that is why you see I went to seek the second opinion."***- 41-year-old, married, untreated**

Trust in Healthcare Providers: Confidence in compassionate and skilled healthcare providers helped women overcome fear and adhere to treatment. Among those who accessed treatment, trust in providers was strengthened by comprehensive counselling, clear explanations, and respectful communication, which supported linkage to care with less anxiety. Women who had not yet accessed treatment expressed that similar support would help reduce their fear and better prepare them for care.

*"Even when I came here, the one who really motivated me was XXXX [healthcare provider's name redacted]. She is the one who was following up on me, even at home, she would call me and tell me to follow up with treatment."***–35-year-old, single, treated**

Social withdrawal and daily activity disruption: Some women reported coping through social withdrawal and interrupting their daily activities to receive care. Among women who accessed treatment, most

reported that their daily routines were disrupted due to the need to adhere to treatment and attend appointments. They had to negotiate with employers for time off or financial support, while daily wage earners faced income loss when attending appointments or preparing for care**.** Women who had not yet accessed treatment described uncertainty about how seeking care would interfere with their daily activities. However, supportive employers and relatives helped mitigate some of the psychosocial burden across both groups by providing time off work, financial support, and emotional reassurance.

"*Yes. Or even other casual jobs, because on a day like that, you cannot go for casual jobs even if you have been called for one***…** *You lose a day's pay***."–46-year-old, married, treated**

Table 2: Psychological and psychosocial experiences and coping strategies among women diagnosed with precancerous cervical lesions ineligible for ablative therapy

Theme	Description	Illustrative quote
Psychological experiences	**Denial following screen-positive results:** Women responded to positive screening results with denial, interpreting the diagnosis as invasive cancer. Some questioned why they screened positive despite having no prior symptoms **Fear of progression to cancer and death:** Due to unclear explanations about the meaning of the results, fear of cancer and death strained personal relationships and parenting **Fear of treatment:** Anticipated pain and bodily harm during treatment, concerns about complications after treatment, such as excessive bleeding, concerns about physical exposure and femininity during LEEP and hysterectomy procedures led to fear and emotional distress. **Anxiety and uncertainty during referral**: Perceived insensitivity in healthcare provider communication. Unclear referral instructions and delays in accessing treatment led to persistent worry and feelings of helplessness. **Relief following treatment:** Post-treatment, women experienced relief, regained self-confidence, and improved social engagement. Clear communication and empathetic care from healthcare providers significantly reduced distress.	• *"So, I asked myself if there is no way you can tell...does it mean this sickness does not have any signs. I just told myself, no, I do not have this disease… the lack of acceptance, you are still in denial, I am not sick"* **–42-year-old, single, treated** • *"He told me that my cervix was not normal. I was very surprised, and I felt I was going to die. Until he told me that it was not cancer."* **–41-year-old, single, untreated** • "The challenge was the fear, how is that process, how is it going to be done, how long is it going to take? After treatment, how am I going to feel. You know you can get treated and start developing other problems such as bleeding and all that."**–38-year-old, married, treated** • "*For example, when I was referred, I kept wondering, now that I have been referred here without even knowing where to start, which procedure will I follow. It is just confusing and stressing"* **–46-year-old, married, untreated** • *"My heart was settled when I was told it was cleared. For your peace of mind, there is a surety that I don't have that…they have screened my breast they are okay, and the cervix is okay, you find that you have peace of mind."* **–35-year-old, separated, treated**

Psychosocial experiences	**Family and social network support:** Family and spouse provided emotional, financial, and logistical support. These support systems eased caregiving demands. **Health system frustrations:** Repeated delays, long turnaround times, poor communication, lack of accompaniment, and crowded facilities heightened distress and eroded healthcare trust. **Stigma and Fear of Judgment:** Cervical cancer stigma, linked to myths of multiple partners and/or curses, influenced disclosure and seeking treatment.	· *"I thought I should tell my sisters because they are a bit learned so they could give me good support."* **–42-year-old, single, treated** · *"You should not be kept waiting after you are told you are suspicious of cancer… it can be very traumatizing."* **–45-year-old, single, untreated** · *"Mostly they told me that a woman without a husband is the one who gets cervical cancer or has multiple sexual partners, yeah, those are the two things I have heard."* **–42-year-old, single, treated**
Coping strategies	***Social withdrawal and daily life disruption*:** Withdrawal from social interactions, difficulty communicating with healthcare providers, and disrupted work/family roles led to stress. Supportive employers and/or relatives mitigated the burden. **Shifting perspective, and prioritizing health:** Some clients coped by accepting treatment as manageable, motivated by survival and caregiving responsibilities. **Information-seeking and spiritual support:** Prayers and proactively obtaining information from various sources reduced uncertainty and increased optimism. **Trust in Healthcare Providers:** Confidence in compassionate, skilled healthcare providers increased hope and reduced shame among clients.	· *"Yes. Or even other casual jobs, because on a day like that, you cannot go for casual jobs even if you have been called for one… You lose a day's pay."* **–46-year-old, married, treate**d · *"I also thought it was my body, and I had to follow up treatment; also, I have kids who need me, so I had to follow up on treatment."* **–35-year-old, single, treated** · *"…because apart from seeking medical advice and treatment, I know I can pray and get healed."* **–35-year-old, separated, untreated** · *"Even when I came here, the one who really motivated me was XXXX. She is the one who was following up on me, even at home, she would call me and tell me to follow up with treatment."* **–35-year-old, single, treated**

LEEP: Loop Electrosurgical Excision Procedure

Discussion

Women with precancerous cervical lesions ineligible for ablative therapy experienced interconnected psychological and psychosocial challenges during referral and treatment. Women often misinterpreted precancer as cancer, generating fear of progression and death, particularly when results were poorly explained. Treatment decisions were further complicated by concerns about femininity and womanhood following hysterectomy. Stigma and anticipated judgment influenced disclosure, although family,

partners, and social networks provided important support. Health system frustrations, including unclear referrals, repeated visits, delayed results, long waiting times, and provider unavailability, prolonged uncertainty and distress. Together, these findings demonstrate that women's experiences are shaped by individual, social, and health-system factors throughout the treatment pathway.

Women described denial and alarming interpretations of a positive screening result, equating precancer with invasive cancer. Women's tendency to interpret precancerous lesions as cancer suggests that psychological distress may arise not only from the clinical finding itself but from uncertainty about its meaning and implications. Previous qualitative studies similarly show that women may perceive abnormal cervical screening results as indicative of cancer, generating anxiety and a need for information and emotional support anxiety (21–23). Importantly, Mortensen and Adeler found that fear of cancer among women with cervical dysplasia was not proportional to disease severity but was strongly influenced by women's knowledge and the quality of communication with healthcare providers (24). This suggests that inadequate explanation can leave women to interpret an ambiguous diagnosis through the most threatening outcome cancer and death. In this context, communication is not merely an informational intervention but may shape how women appraise risk and cope with uncertainty. Providing clear, culturally appropriate explanations that distinguish precancer from invasive cancer, while outlining expected next steps, may therefore reduce catastrophic interpretations and support more informed engagement with referral and treatment.

Concerns about femininity and womanhood following hysterectomy suggest that women attached meanings to the uterus that extended beyond its biomedical function. For some participants, the uterus was associated with fertility, motherhood, bodily completeness, and their sense of being a woman, making the prospect of its removal emotionally difficult. This is consistent with qualitative evidence showing that hysterectomy may be experienced as the loss of a valued body part and can influence perceptions of femininity and identity (25–27). However, these meanings are not universal, and femininity may be understood more broadly than the presence of the uterus alone. In our study, concerns about womanhood did not appear to translate into outright rejection of hysterectomy. Rather, some women negotiated these concerns alongside competing priorities, particularly preserving their health and remaining present for their children. This suggests that treatment decisions may involve balancing concerns about bodily identity and fertility with perceived health needs. Counselling should therefore acknowledge these meanings while providing clear information about the effects of hysterectomy on fertility, hormonal function, and womanhood.

Stigma and anticipated judgment represented another important dimension of women's experiences. Some participants reported being associated with multiple sexual partners or being told that cervical cancer was related to curses. These beliefs influenced decisions about disclosure and contributed to concerns about being judged by family members, partners, or the wider community. This finding is consistent with previous evidence linking HPV and cervical abnormalities with stigma, shame, and anxiety (21,28). However, stigma does not appear to be an inevitable response to cervical abnormalities. Some women in previous studies did not experience shame or embarrassment when they

understood HPV as a common infection, suggesting that how women understand the condition may influence whether a screening result becomes stigmatizing (29). Importantly, stigma did not operate uniformly. Some women received substantial emotional, financial, and practical support from relatives, partners, and community members. These findings suggest that the psychosocial consequences of cervical abnormalities may depend not only on women's individual interpretations of their results but also on how their social networks understand and respond to the condition. Interventions should therefore address misconceptions and anticipated stigma while strengthening supportive social environments that enable women to disclose concerns, seek assistance, and navigate referral and treatment without fear of blame or social rejection.

Health-system constraints appeared to extend the psychological burden of an abnormal screening result by making the pathway to definitive care unpredictable. Rather than uncertainty arising solely from concerns about disease progression, women’s distress was also shaped by the reliability and responsiveness of the services through which they were expected to obtain care. This interpretation is consistent with evidence from Kenya identifying weak referral and tracking systems as important gaps in cervical cancer care, and with systematic reviews showing that limited capacity, poor service organization, inadequate referral systems, and shortages of staff and equipment can create lengthy diagnostic and treatment pathways in LMICs settings (15,30). Evidence from Uganda similarly identifies long waiting times, delayed laboratory results, inadequate information, and provider-related gaps as barriers to retention after cervical screening, while counselling and effective communication can facilitate continued care (18). Thus, improving referral coordination and patient-centred communication may not only improve continuity of care but also reduce the uncertainty that makes the period between screening and treatment psychologically difficult.

Strengths and limitations

An important strength of this study is that the three qualitative researchers had no direct role in implementing the cervical cancer screening and treatment intervention. Their lack of involvement in the intervention may have reduced participants’ concerns that their participation or responses could influence their clinical care, encouraging them to share their experiences more openly and in greater detail. This may have contributed to rich, contextualized findings that could be transferable to similar health system contexts. Limitations included, first, IDIs were conducted at a single time point, limiting insight into how participants’ psychological and psychosocial experiences and coping strategies may have evolved over time. Second, the study included a small sample of women with precancerous cervical lesions ineligible for ablative therapy within Central Kenya, which may limit the transferability of findings. Future research should explore psychological and psychosocial experiences and coping strategies across diverse clinical contexts. Lastly, because participants were identified through participating health facilities, women who were completely disengaged from care or unreachable after referral may have been underrepresented

Conclusion

Our findings highlight that women diagnosed with precancerous cervical lesions who are ineligible for same-day screen-and-treat and require referral face significant psychological and social challenges, influenced by multi-level factors, including individual fears, social networks, and stigma. Despite these challenges, women demonstrate resilience through coping strategies such as trust in healthcare providers, seeking social support, and relying on spirituality. Cervical cancer prevention programs should extend beyond screening and treatment provision to include clear referral communication, psychosocial support, and strategies for navigating non-ablative treatment pathways.

Declarations

Ethical Approval and consent to participate

This study was approved by the Scientific Ethics Review Unit at the Kenya Medical Research Institute (SERU-KEMRI No. 4923) in Nairobi, Kenya, and the Human Subjects Institutional Review Board (STUDY00014200) at the University of Washington, Seattle, USA. The study was conducted in accordance with the ethical standards outlined in the Declaration of Helsinki. Written and verbal informed consent was obtained from all women participating in the study. The consent forms clearly stated the purpose of the study, that it was based on voluntary participation, and that participants could withdraw from the interview at any time. All study materials were de-identified, stored in password-protected files, and only accessed by the study team. The data obtained were used solely for scientific purposes.

Consent for Publication

Not applicable.

Availability of data and materials

The data that support the findings of this study may be available from the corresponding author upon reasonable request.

Competing interests

The authors declare no competing interests.

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Author Contribution(s)

Study conceptualization and funding acquisition: NM, MM, KN, JS, ME. Methodology: NM, MM, JS, KN, ME. Project administration: NM, KN, MM, LO, PO. Supervision: MM, LO. Data curation: PO, CC, MNG. Data collection: PO, MNG, and CC. Formal analysis: PO, MNG, and CC. Visualization: PO. Validation: NM, KN, MM, PO. Writing – original draft: PO. All authors reviewed and edited the manuscript and approved the final version.

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