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"My Wife's Healthcare Is my Healthcare": A Qualitative Study Exploring Family-Centered Strategies to Enhance Cervical Cancer Prevention in Northern Ghana

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Abstract

Introduction: While largely preventable, cervical cancer remains a major cause of morbidity and mortality in low- and middle-income countries (LMICs), where gaps in screening uptake persist despite expanding prevention efforts. In many patriarchal settings, men play influential roles in household decision-making and access to healthcare, positioning them as critical but under-engaged stakeholders. There remains limited understanding of how educational strategies to improve health literacy can be designed to effectively engage men in supporting women's screening participation. **Methods:** We conducted a qualitative study in northern Ghana to explore men's understanding, priorities, and values related to cervical cancer prevention to inform male-focused educational strategies. Guided by the Consolidated Framework for Implementation Research and the Health Belief Model, 9 in-depth semi-structured interviews were conducted with married adult men recruited from community settings, examining household roles, perceptions of cervical cancer and screening, and preferences for education and engagement approaches. Interviews were conducted in English or Dagbani, audio-recorded, transcribed, and analyzed thematically using a hybrid inductive and deductive approach. **Results:** Three cross-cutting themes emerged. Men viewed healthcare professionals as trusted sources of cervical cancer information and described their roles as primary financial decision-makers, with cost and competing household priorities influencing support for screening. Masculine responsibility, particularly related to fertility and family wellbeing, strongly motivated engagement, and messages

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framed around these themes were more compelling than disease-focused messaging alone. Participants recommended integrating education into routine health services, leveraging healthcare workers, offsetting screening-related costs, and using mass media to initiate awareness and information seeking. **Conclusion:** Men represent pivotal yet underutilized partners in cervical cancer prevention. Educational strategies that align with men's roles, economic realities, and trusted sources of information and address household decision-making barriers may enhance screening uptake while supporting women-centered care. These findings provide implementation-relevant insights to inform male-engaged cervical cancer prevention strategies across diverse LMIC settings.

Keywords
cancer screening, cervical cancer, prevention, Ghana, screening utilization, educational intervention, health literacy

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Introduction

Cervical cancer, though largely preventable and curable, remains a major global health challenge, with the highest incidence and mortality concentrated in low- and middle-income countries (LMICs).[1-3] Particularly, Africa experiences the highest incidence and mortality rates worldwide, reflecting persistent gaps in prevention, early detection, and treatment.[4-7] Part of the World Health Organization's strategy to eliminate cervical cancer includes ensuring that 70% of women are screened at least twice in their reproductive-aged years, specifically by age 35 and again by age 45.[5] Improving health literacy, defined as the ability to access, understand, and act on health information, has been identified as a key strategy for increasing screening uptake and reducing disparities in cancer prevention.[8-10] In many African contexts, health literacy efforts are often delivered through community-based approaches that account for local cultural norms and social structures. Despite the expansion of screening program across many African countries, screening uptake remains suboptimal due to limited awareness, sociocultural perceptions surrounding screening, and gendered dynamics that shape women's access to healthcare, particularly in patriarchal contexts where men often influence or control health-related decision-making.[11-15]

Emerging evidence indicates that engaging men as active partners in cervical cancer prevention may be an effective strategy to increase screening uptake and reduce the overall burden of cervical cancer.[16-20] Men frequently play a central role in household decision-making related to healthcare utilization and resource allocation, positioning them as key stakeholders in women's access to preventive cancer services. Studies indicate that when men are informed about cervical cancer and the benefits of screening, they may be more likely to provide emotional, logistical, and financial support for screening and follow-up care, as well as help reduce stigma and misconceptions surrounding cervical cancer.[21-23] The potential value of male engagement in cervical cancer prevention is further supported by evidence from other sexual and reproductive health interventions, including prenatal care and prevention of mother-to-child human immunodeficiency virus (HIV) transmission, where male involvement has been associated with improved health outcomes.[24-26]

Specifically education has emerged as a key strategy for engaging men in cervical cancer prevention efforts, by increasing health literacy, knowledge, addressing misconceptions, and fostering supportive behaviors related to women's screening participation.[16,27,28] However, substantial gaps remain in understanding how men interpret cervical cancer information, which messages resonate most strongly, and how educational approaches can be designed to align with men's priorities, values, and decision-making roles.[11,29] Ghana, particularly its northern region, offers a valuable context for addressing these questions, as it reflects a predominantly patriarchal social structure in which men play a central role in household and healthcare decision-making, mirroring broader gender dynamics across many African and similar low- and middle-income settings.[30-33] The disparity between health literacy and screening practice is also found to be wider in northern Ghana than its southern counterparts, requiring nuanced attention to traditional values and priorities.[34-36] In such contexts, the effectiveness of male-focused education depends not only on increasing awareness, but on how information is framed and delivered in ways that align with men's roles within the family. Examining men's perspectives in northern Ghana therefore provides an opportunity to generate contextually grounded insights into how educational strategies for men can be designed to meaningfully support women's cervical cancer screening uptake and inform similar efforts in other settings shaped by comparable gender norms.

Accordingly, we conducted a qualitative study to explore how men in northern Ghana understand cervical cancer prevention, what motivates their support for screening, and how educational messages can be tailored to resonate with their roles and responsibilities, with the goal of informing the development of a community-driven educational intervention targeted to men.

Methods

Study Context and Implementation Setting

Cervical cancer remains a major public health challenge in Ghana, where it is the second most common cancer among women, with an estimated 3,072 new cases and 1,815 deaths reported annually.[1,4] This corresponds to an age-standardized incidence rate of 27 per 100,000 women and a mortality rate of 16.9 per 100,000, highlighting the substantial risk faced by the country's 10.6 million women susceptible to the disease. Ghana currently lacks a coordinated national cervical cancer screening program, with formal screening guidelines limited primarily to women living with HIV/AIDS.[37,38] As a result, cervical cancer prevention efforts are largely implemented through regional and facility-level initiatives, even as there is increasing national momentum to expand prevention through broader screening access and the introduction of school-based human papillomavirus (HPV) vaccination programs.[37,39,40]

Northern Ghana is a region where cervical cancer prevention challenges are particularly acute due to socioeconomic disadvantage, limited health infrastructure, and reduced access to healthcare services (34).[41] The study was embedded within regional cervical cancer prevention efforts supported by AMPATH Ghana (Academic Model Providing Access to Healthcare), a global health academic partnership between NYU Grossman School of Medicine (USA), the University for Development Studies (Ghana), and Tamale Teaching Hospital (Ghana), in collaboration with the Ghana Health Service. This partnership provided the programmatic infrastructure and community engagement context within which the present qualitative study was conducted.[42]

Study Design

This qualitative study was guided by the Consolidated Framework for Implementation Research (CFIR) to examine multilevel determinants of cervical cancer prevention, and by the Health Belief Model (HBM) to address individual health behaviors and decision-making.[43-45] The CFIR provided a systematic approach to understanding the implementation context, while HBM informed the exploration of perceptions, knowledge, and attitudes related to cervical cancer prevention and screening behaviors.

Study Population, Sampling, and Recruitment

The study population consisted of adult men residing in the Tamale Metropolitan Area in northern Ghana. Eligible participants were required to be 18 years of age or older, able to communicate in either English or Dagbani, and able to provide verbal informed consent. A community-based purposive sampling approach was used to recruit participants face-to-face from key social and occupational settings across the metropolitan area, including workplaces, marketplaces, and other common community gathering spaces. Random, in-person recruitment was conducted within these settings, with study team members approaching eligible men and inviting them to participate. Rates of declining participation among approached men in the local metropolitan area were not recorded. Participants were compensated for their time. Recruitment continued until thematic saturation was achieved, which occurred after nine interviews ($n = 9$). Thematic saturation was defined as the point at which new data gathered would not contribute significantly to addressing the research question and existing data was being replicated.[46] This sample size approach is consistent with prior literature investigating appropriate sample sizes and thematic saturation for qualitative studies.[47]

Study Tool

Using CFIR and HBM as guiding frameworks, a semi-structured interview guide was developed to assess participants' roles within their families and communities, baseline knowledge and perceptions of women's health issues (including cervical cancer), and attitudes towards potential interventions to increase screening uptake. Specific, targeted questions at the end of the interview aimed to understand how men envisioned their involvement in cervical cancer prevention efforts. The guide was developed in English, translated into Dagbani, the predominant language in this part of Ghana by a research team member, and pilot tested in both languages. Following three iterative revisions based on feedback from these pilots, trained research assistants in English and Dagbani administered the finalized guide to participants.

Data Collection

Two authors conducted the semi-structured interviews: MC (female medical student from the United States at NYU Grossman School of Medicine) and CT (male registered nurse from northern Ghana at Tamale Teaching Hospital). Both

interviewers had prior research training and experience. Prior to data collection, they participated in three qualitative research training meetings with SH, the study Principal Investigator (PI), who has extensive experience in qualitative research. They also conducted three supervised practice interviews, which were reviewed by the study PI to provide feedback and ensure consistency and quality in the interviewing approach.

Interviews were conducted at locations chosen by participants where privacy could be ensured. Most interviews took place at participants' workplaces, market centers, or mosques, and only the participant and the interviewer were present. Interviews were conducted in either English or Dagbani and were audio-recorded to ensure accuracy. Rapport was established during recruitment and when scheduling the interview, at which time participants were provided with a brief description of the study aims and interview process. Participants were aware of the interviewers' professional roles in the study, although no additional information about the interviewers' personal backgrounds or perspectives on the research topic was disclosed.

Interviews lasted approximately 45 minutes on average, and repeat interviews were not conducted. Interviews conducted in Dagbani were translated and transcribed into English for analysis. Translation was completed by study team member fluent in both English and Dagbani (CT), to ensure preservation of meaning. Transcripts were not returned to participants for review or correction following transcription and translation. Field notes were not collected as part of this study. To ensure data quality, the study PI reviewed the first three interviews and transcripts. Thematic saturation, indicating sufficient depth and breadth of data, was achieved early in the study and finalized after completing nine interviews (n = 9).[46,47]

Data Analysis

Prior to any data analysis, transcripts were de-identified and all details that could have suggested a participant's identity were removed. Transcripts were stored in a secure cloud location for access by approved study team members as per IRB guidelines. A preliminary codebook was developed using a hybrid deductive and inductive approach, informed by both CFIR and HBM frameworks, as well as an initial inductive review of the interview data and finalized collaboratively between three team members (NK, CH, AA) through two iterative rounds of refinement. Codes were then grouped into higher-order categories based on conceptual similarity, with primary categories of participant roles, values and priorities, involvement in wife's healthcare, resources, engagement with sexual and reproductive health, and strategies for screening programs and implementation (Appendix A). Three study team members (NK, CH, AA) participated in the coding of each transcript, and each transcript was coded independently by two team members in Dedoose (Version 9.2.22, SocioCultural Research Consultants, LLC, Los Angeles, CA, https://doi.org/www.dedoose.com). Coding discrepancies were systematically resolved through discussion, and a final agreed-upon code was applied. Synthesizing the resulting codes into comprehensive themes was completed both via a deductive and inductive thematic analysis approach led by two team members and supervised and finalized by study PI to ensure consistency and rigor in the thematic analysis. Study participants were not contacted after thematic analysis to provide feedback on the findings for the present study; however, member-checking procedures are planned in future work.

Ethical Review

This study protocol was approved by the Institutional Review Boards at New York University Grossman School of Medicine (i23-01090) on October 1, 2023 and Navrongo Health Research Centre in Ghana (NHRCIRB550) on October 3, 2023. All participants provided verbal informed consent prior to participation, and interviews were conducted in private settings to ensure confidentiality. Audio recordings and transcripts were de-identified prior to analysis. The study was conducted in accordance with the ethical principles of the Declaration of Helsinki (1975), as revised in 2024. Reporting of the study conforms to the COREQ guidelines.[48]

Results

The study sample consisted of nine adult men residing in the Tamale Metropolitan Area in northern Ghana. Participants were predominantly aged 35 years and older, all were married, employed, and had children despite these characteristics not being specified as eligibility criteria. Most identified as Muslim, reflecting the religious composition of the study setting, and participants represented a range of occupations, including religious or community leaders, business owners, and public servants. Interviews were conducted in either English or Dagbani and took place in community-based settings such as mosques, markets, and offices. Participant demographic characteristics are summarized in Table 1.

Three major themes emerged from the data describing how men perceive and engage with cervical cancer prevention in northern Ghana. These included (1) trust in healthcare professionals as credible sources of information, (2) the influence of financial decision-making on health prioritization, and (3) the role of masculine responsibility and fertility in shaping support for screening. Figure 1 represents a thematic A thematic map is included to represent of our main themes and findings.

Trust in Healthcare Professionals as Gateways to Knowledge

In this population of men, there was an existing high level of trust in the healthcare system and its providers. Because of this, men were highly receptive to education about cervical cancer prevention from healthcare professionals and placed high value on medical advice. Participants consistently described deferring to healthcare workers when making decisions about their wives' care, emphasizing that their first action when a spouse was ill was to encourage or empower her to seek medical attention by a trusted healthcare worker.

> *"I always advise her that the going to hospital to seek healthcare is good, and she is supposed to be going to the hospital, anytime whatever the doctors tell or advise her on it good to follow it."* (57 years old, married with children, occupation tailor)

Participants expressed a desire to learn about cervical cancer and screening from healthcare professionals, as the credibility and ethos of the provider conferred a greater degree of trust and factual weight. Much of men's prior knowledge of women's health came through their interactions with healthcare workers during their wives' antenatal care.

> *"I wanted to learn about it from a health worker who has much knowledge about the cervical cancer… I will have been happy if a doctor will speak with me on one-on-one face-to-face."* (57 years old, married with children, occupation tailor)

While men preferred that female providers attend to their wives, they acknowledged that this was not always possible and prioritized access to care over provider gender.

> *"It is not something that she is doing willingly...it is because she needs to be looked at, it is about her health, it's not about her nudity or any other thing…so I am not worried about that."* (64 years old, married with children, unit community leader)

Table 1. Participant Demographic Characteristics (N = 9)

Characteristic	n (%)
Age (years)	
18-24	0
25-34	1 (11)
35-44	3 (33)
45+	5 (56)
Religion	
Muslim	8 (89)
Christian	1 (11)
Marital status	
Married	9 (100)
Unmarried	0
Parental status	
Children	9 (100)
No children	0
Employment status	
Employed	9 (100)
Unemployed	0
Occupation	
Religious or community leader	3 (33)
Businessman	3 (33)
Public servant	3 (33)
Interview language	
English	4 (44)
Dagbani	5 (56)
Interview setting	
Mosque	3 (33)
Market	3 (33)
Office	3 (33)
Prior Experience with CC Screening	
Yes	2 (22)
No	7 (78)

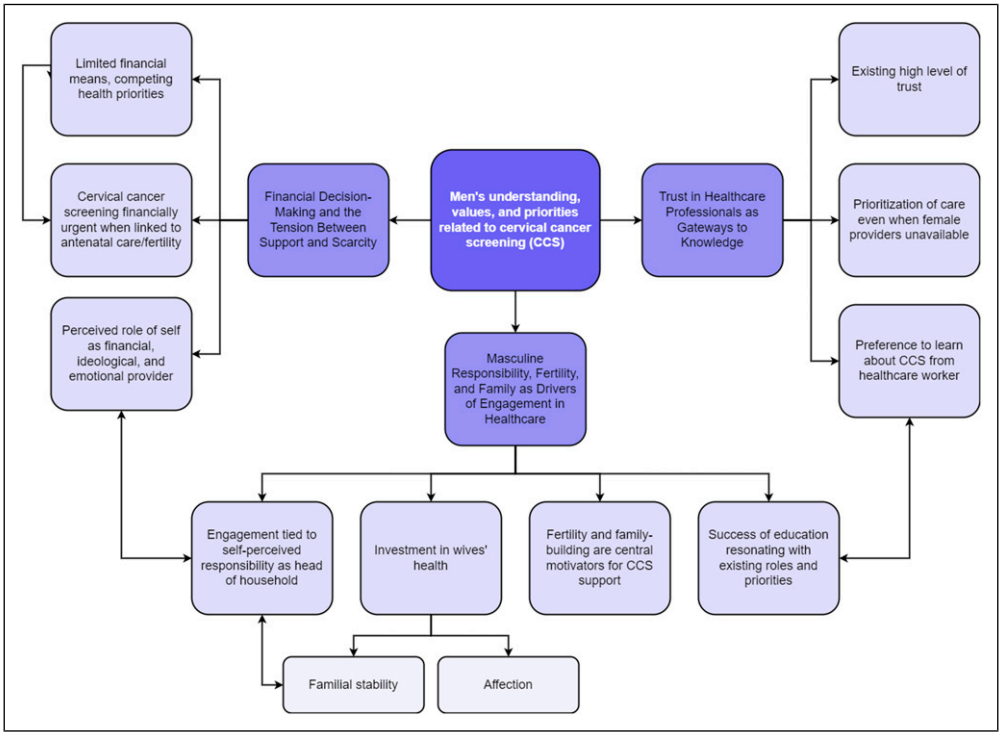


Figure 1. A visual summary of the main study themes

Financial Decision-Making and the Tension Between Support and Scarcity

Participants described themselves as primary financial, ideological, and emotional providers within the household and as key decision-makers regarding resource allocation. They expressed a strong desire to fund their wives' healthcare and to act in their best interest when they fall ill. However, limited financial means and competing priorities created tension between their desire to provide care and ability to do so.

> *"In the case that your business is not booming and you don't have money, and your wife is sick, you will see that you have to be sending her to private hospitals so that is why I wished that I had more resources so that when my wife is sick, I can be able to send them to any hospital at all."* (39 years old, married with children, occupation independent businessman)

> *"I support her financially, but here in Africa it's not every day you make money. Some days you work and earn something, other days you don't. If she needs money for healthcare when I don't have it, I have to borrow so she can go."* (57 years old, married with children, tailor)

Because of these financial pressures, preventive services such as cervical cancer screening are often deprioritized in favor of more immediate or acute concerns.

> *"Because of the cost payment involved that is why majority don't do screening… Some men really want their wives to go for the screening but they don't have money to give them to pay for it."* (57 years old, married with children, occupation tailor)

> *"Here, we don't go to the hospital until we feel uncomfortable. That one is true. We don't plan it. Until you are sick, and even the sickness has a level to reach before we go to the hospital."* (65 years old, married with children, occupation public servant)

Cervical cancer screening was perceived as taking financial precedent only when men understood it as directly relevant to urgent family health needs, such as antenatal care or fertility.

> *"The disease I am likely to fund is infertility. That is, if a woman cannot give birth… so I mean literally that she can be in the childbearing age, but she won't be able to conceive ... That is the disease that I would be more likely to fund."* (39 years old, married with children, occupation businessman)

Masculine Responsibility, Fertility, and Family as Drivers of Engagement in Healthcare

Men's engagement in women's healthcare was deeply tied to their self-perceived responsibilities as heads of household, emotional partners, and fathers. Participants articulated a strong sense of duty to ensure the health and stability of their families, roles that extended beyond financial provision to moral and emotional support.

> *"I support her in finance, first. And second, I support her in terms of advice on what she should do or what she should not do. And sometimes, the support, I go together with her to the healthcare facility... I think that I support her, financially and morally."* (64 years old, married with children, unit community leader)

Men described their wives as both loved partners and essential contributors to the family's wellbeing, particularly through childbearing and caregiving. Their investment in women's health stemmed from two intertwined motivations: affection and familial responsibility. For many, supporting their wives' health was viewed as an extension of caring for their children and sustaining the family line.

> *"Whenever she's not feeling well and she's looking very sad, I also feel very sad. I'm not happy, even if I go out, I don't normally interact with my friends and they ask me why, why are you so cold today? I say my wife is not feeling well and she's not happy. And I am also not happy."* (64 years old, married with children, unit community leader)

> *"I'm so motivated. Because, my wife's healthcare is my healthcare, so I should be concerned about it. If she goes away, who will take care of my children for me?"* (41 years old, married with children, occupation bank manager)

Fertility and family-building consistently emerged as central motivators for men's support of cervical cancer screening. Participants linked the disease to infertility and pregnancy complications, recognizing that undiagnosed cervical cancer could threaten both family growth and stability. Once men understood this connection, their willingness to support their wives, both financially and emotionally, increased substantially.

> *"Oh, now that I know that [cervical cancer screening] is important as far as production of children is concerned, I will increase it, to support her to get me good healthy children."* (65 years old, married with children, occupation public servant)

> *"It could be that is the reason why my wife is not able to get pregnant again."* (57 years old, married with children, occupation tailor)

At baseline, men's knowledge of cervical cancer was limited, with most awareness derived from prior experiences with antenatal care or infectious disease programs. However, when educational messages resonated with men's existing priorities, family health, fertility, and family harmony, they expressed strong enthusiasm for supporting screening.

> *"It good that the awareness is made and spreads through different means to help people benefit from the importance of this message... it has encouraged and motivated me to support my wife."* (34 years old, married with children, Islamic religious leader)

> *"So, with this information, I can be helping her to go and do the screening... so that she will get well and so that she can get pregnant."* (39 years old, married with children, occupation businessman)

> *"So, most of them who have been facing this birth issues with their wives... it is a result maybe of the cervical cancer, so they have to encourage their wives. So when you talk to them this way, no one wants to have a problem in their family…so it will encourage them more."* (64 years old, married with children, unit community leader)

In response to targeted questions about what an ideal educational program to increase cervical cancer screening would entail, participants proposed a range of strategies, including community-based referral systems, financial support mechanisms and incentives, collaboration with healthcare workers, and the use of social media to disseminate information, as summarized in Table 2.

Discussion

The findings of this study highlight the importance of framing cervical cancer prevention within broader notions of family health and wellbeing, particularly in patriarchal settings where men play central decision-making roles. Participants frequently linked support for screening to concerns about fertility and reproductive health, suggesting that positioning cervical cancer screening as a means of protecting fertility and sustaining family welfare may foster stronger male

engagement. This finding is consistent with prior literature describing factors associated with male engagement in cervical cancer screening in Africa. Prior research and this study together emphasize the value of family-centered approaches in sexual and reproductive health interventions. 2[21-23]

Participants also demonstrated a high level of trust in healthcare professionals, indicating a key opportunity to strengthen cervical cancer education through provider-led initiatives. While prior evidence demonstrates a lower overall level of trust in the healthcare system in Ghana, this finding from our study indicates that trust is context dependent, in both the region sampled and for sexual and reproductive health services specifically.[49-51] Screening promotion interventions embedded within existing care pathways may therefore be more acceptable than stand-alone outreach efforts, particularly given men's openness to receiving health information from trusted professionals. However, men described financial constraints and competing household priorities that often limit the translation of knowledge into preventive action. These findings underscore the importance of integrating cervical cancer screening education into routine health services where men are already present, such as antenatal care (ANC) visits, to minimize additional time and cost burdens.[11,29,30,52] Introducing cervical cancer prevention discussions within ANC may also facilitate early buy-in and normalize men's involvement by positioning screening as a shared family health responsibility.

Consistent with this, participants expressed a strong desire to accompany their wives to healthcare facilities, reflecting a sense of responsibility and involvement in reproductive care. However, prior studies have documented health system barriers to male accompaniment, including long wait times and unwelcoming attitudes from healthcare providers.[53,54] Addressing these barriers may be critical to maximizing the effectiveness of male engagement strategies. Efforts to intentionally include men within ANC and screening programs may not only improve access to preventive services but also strengthen partnership, shared responsibility, and sustained male support for women's engagement in cervical cancer prevention.[52]

Although men in our study demonstrated low familiarity with cervical cancer screening, consistent with previous studies, education was frequently emphasized as important during interviews.[18,27] Men's motivations for supporting screening were shaped by beliefs related to fertility, reproductive outcomes, and family stability, similar to patterns observed in prior systematic reviews of male engagement in cervical cancer prevention.[16] Prior literature suggests that cultural beliefs and myths about screening, including misconceptions linking screening to promiscuity or sterility, may further influence male engagement.[3] While these beliefs were not explicitly explored in this study, interventions may address such perceptions by leveraging men's trust in healthcare providers as credible messengers.

Overall, this study provides insight into men's perspectives on cervical cancer screening within their roles as family leaders and providers. Men described financial, emotional, and cultural responsibility for their wives' health, particularly within the context of reproductive care. At the same time, societal norms and stigma may discourage visible male involvement, such as accompanying partners to health facilities.[29,30] These findings suggest that cervical cancer prevention programs should not assume male opposition or disinterest. Instead, initiatives should build on men's existing sense of

Table 2. A Summary of the Implementation Ideas That Men Believed Would be Highest Impact to Increase Cervical Cancer Screening in Their Community in Northern Ghana

Suggested strategies to improve uptake of cervical cancer screening	
Cost-offsetting financial support mechanisms	Provide subsidies, free screening, or voucher-based support to reduce financial barriers to cervical cancer screening, acknowledging men's influence over household resource allocation.
Community-based male-led referral support	Engage trusted male community members, such as religious and community leaders, to identify and encourage men whose partners are eligible for cervical cancer screening and to facilitate referrals to screening services. This approach leverages men's social networks to promote awareness, normalize participation, and support linkage to care.
Integrated mass media and digital education strategies	Participants highlighted television and radio as common sources of unintentional exposure to health information, which often prompted subsequent exploration through online platforms and health blogs. These findings suggest opportunities to pair mass media messaging with reliable digital resources to reinforce cervical cancer education and support informed decision-making.
Participatory evaluation and feedback mechanisms	Engage men in program monitoring and evaluation through surveys, structured interviews, or small-group discussions focused on values, beliefs, and experiences to assess program feasibility, appropriateness, and acceptability.
Healthcare worker led education and outreach	Men described healthcare workers as trusted sources of information and indicated a preference for both formal instruction and greater community involvement by healthcare workers in cervical cancer education.

responsibility, trust in healthcare systems, and openness to medically framed information.[22,23] Community-based strategies that engage trusted male leaders and healthcare professionals as educators may help normalize male participation in reproductive health and strengthen cervical cancer prevention efforts in low-resource settings.[10,55]

However, while education for men with a focus on family centered messaging is a promising strategy to engage men as champions of cervical cancer screening, it is critical to implement these programs with careful consideration of women's autonomy, rights, and equity. Male involvement must be framed in a way that complements and empowers women, rather than reinforcing patriarchal norms that may limit their agency in healthcare decision-making. Effective cancer prevention interventions must strike a balance between fostering male engagement and prioritizing women's voices, ensuring equitable access to cervical cancer prevention services. Recognizing the complex interplay between culturally embedded gender roles, individual health agency, and trusted healthcare relationships is vital for designing interventions that are both impactful and inclusive.[52,56,57]

Limitations

Limitations of this study include the relatively small sample size, although we did achieve thematic saturation. The use of purposive sampling rather than random sampling may have limited the diversity of participants, potentially narrowing the perspectives represented when compared to the broader community. Additionally, while this study provides valuable insights into male engagement in cervical cancer prevention within the Ghanaian context, it is important to consider these findings in the larger body of evidence on cervical cancer screening uptake across Africa. This broader context can help situate the results and ensure their applicability to settings with similar social and cultural dynamics.

Conclusion

Our findings suggest that men are important stakeholders in the global effort to eliminate cervical cancer. Their values, previous experiences engaging with healthcare, and the influence of cultural and gender norms significantly impact their receptivity to supporting cervical cancer screening and prevention efforts. The evidence presented in this study highlights various social, cultural, and gender norms that affect cervical cancer screening within a local Ghanaian community. These insights can inform the development of targeted outreach and educational programming to encourage men to actively support cervical cancer screening for their wives and women within their families, ultimately helping to decrease the global cervical cancer burden.

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Ethical Considerations

This study protocol was approved by the Institutional Review Boards at New York University Grossman School of Medicine (i23-01090) on October 1, 2023 and Navrongo Health Research Centre in Ghana (NHRCIRB550) on October 3,2023.

Consent to Participate

Informed consent was obtained verbally before participation. The consent was audio-recorded in the presence of an independent witness.

Author Contributions

SH led the conceptualization, methodology, project administration, and supervision of the study. Study design and methodology were supported by LB, CM, and AMSC. Investigation and data collection tool development were conducted by MC, CTN, MS, GA, AM, and HM, with data collection led by MC and CTN and supported by MS. The analytical plan was developed by SH, and the preliminary codebook was developed by CH, MS, AA, and NK under the supervision of SH. Formal data analysis was conducted by AA and NK and validated by SH with input from MB. RS led all institutional review board and regulatory processes and contributed to study oversight. The manuscript was initially drafted by AA and AV and comprehensively revised and edited by SH. RS, AM, GA, HW, AMSC, MB, CM, LB,

CTN, and CH contributed to manuscript review and editing and provided critical intellectual input. SH finalized the manuscript. SH led funding acquisition and provided study resources, with programmatic support through AMPATH Ghana's cervical cancer prevention program led by AMSC, HM, and SH and supported by AM and GA. All authors reviewed and approved the final manuscript.

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Data Availability Statement

The deidentified datasets generated and analyzed in this study are available from the corresponding author on request.

Supplemental Material

Supplemental material for this article is available online.

References

1. Bray F, Laversanne M, Sung H, et al. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2024;74(3):229-263. doi:10.3322/caac.21834.
2. Chidebe RCW, Osayi A, Torode JS. The Global Fund, Cervical Cancer, and HPV infections: what can low- and middle-income countries do to accelerate progress by 2030? *EClinicalMedicine*. 2025;81:103127. doi:10.1016/j.eclinm.2025.103127.
3. Triulzi I, Ciccacci F, Palla I, et al. Improving Male Partner Involvement in HIV-Positive Women's Care Through Behavioral Change Interventions in Malawi (WeMen Study): A Prospective, Controlled Before-and-After Study. *Frontiers in Public Health*. 2022;10:864489.
4. Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin*. 2021;71(3):209-249. doi:10.3322/caac.21660.
5. Organization WH. *Global strategy to accelerate the elimination of cervical cancer as a public health problem*. World Health Organization; 2020.
6. Arbyn M, Weiderpass E, Bruni L, et al. Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *Lancet Glob Health*. 2020;8(2):e191-e203. doi:10.1016/s2214-109x(19)30482-6.
7. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2018;68(6):394-424. doi:10.3322/caac.21492.
8. Sørensen K, Karuranga S, Denysiuk E, McLernon L. Health literacy and social change: exploring networks and interests groups shaping the rising global health literacy movement. *Global Health Promotion*. 2018;25(4):89-92. doi:10.1177/1757975918798366.
9. Sørensen K, Knoll V, Ramos N, et al. Health Literacy in Africa-A Scoping Review of Scientific Publications. *Int J Environ Res Public Health*. 2024;21(11):1456. doi:10.3390/ijerph21111456.
10. Chepkorir J, Guillaume D, Lee J, et al. The Role of Health Information Sources on Cervical Cancer Literacy, Knowledge, Attitudes and Screening Practices in Sub-Saharan African Women: A Systematic Review. *Int J Environ Res Public Health*. 2024;21(7):872. doi:10.3390/ijerph21070872.
11. Ganle JK, Dery I. What men don't know can hurt women's health': a qualitative study of the barriers to and opportunities for men's involvement in maternal healthcare in Ghana. *Reproductive health*. 2015;12:1-13.
12. Petersen Z, Jaca A, Ginindza T, et al. Barriers to uptake of cervical cancer screening services in low-and-middle-income countries: a systematic review. *BMC women's health*. 2022;22(1):486.
13. Mantula F, Toefy Y, Sewram V. Barriers to cervical cancer screening in Africa: a systematic review. *BMC Public Health*. 2024;24(1):525.
14. Mengistie BA, Melese M, Gebiru AM, et al. Uptake of cervical cancer screening and its determinants in Africa: Umbrella review. *PLoS One*. 2025;20(7):e0328103. doi:10.1371/journal.pone.0328103.
15. Isa Modibbo F, Dareng E, Bamisaye P, et al. Qualitative study of barriers to cervical cancer screening among Nigerian women. *BMJ Open*. 2016;6(1):e008533. doi:10.1136/bmjopen-2015-008533.
16. de Fouw M, Stroeken Y, Niwagaba B, et al. Involving men in cervical cancer prevention; a qualitative enquiry into male perspectives on screening and HPV vaccination in Mid-Western Uganda. *PLOS ONE*. 2023;18(1):e0280052. doi:10.1371/journal.pone.0280052.
17. Binka C, Doku DT, Nyarko SH, Awusabo-Asare K. Male support for cervical cancer screening and treatment in rural Ghana. *PLoS One*. 2019;14(11):e0224692.

18. Adewumi K, Oketch SY, Choi Y, Huchko MJ. Female perspectives on male involvement in a human-papillomavirus-based cervical cancer-screening program in western Kenya. *BMC Women's Health*. 2019;19:1-9.
19. Ebu Enyan NI, Raouna A, King-Okoye M, et al. Understanding cervical cancer prevention in Africa: a qualitative systematic review of the role of men. *BMJ Open*. 2024;14(12):e080416. doi:10.1136/bmjopen-2023-080416.
20. Williams MS, Amoateng P. Knowledge and beliefs about cervical cancer screening among men in Kumasi, Ghana. *Ghana Med J*. 2012;46(3):147-151.
21. Dsouza JP, Van den Broucke S, Pattanshetty S, Dhoore W. Factors explaining men's intentions to support their partner's participation in cervical cancer screening. *BMC women's health*. 2022;22(1):443.
22. Osei EA, Bakkari MA, Boateng S, et al. Perceptions and attitudes toward partners support for cervical cancer screening among married men in Ghana. *Public Health*. 2023;223:139-144.
23. Mungo C, Adewumi K, Adoyo E, et al. "There is nothing that can prevent me from supporting her:" men's perspectives on their involvement and support of women's use of topical therapy for cervical precancer treatment in Kenya. *Frontiers in Oncology*. 2024; 14:1360337.
24. Chapola J, Lee F, Bula A, et al. Barriers to follow-up after an abnormal cervical cancer screening result and the role of male partners: a qualitative study. *BMJ open*. 2021;11(9):e049901.
25. Lusambili AM, Wisofschi S, Shumba C, et al. A qualitative endline evaluation study of Male Engagement in promoting Reproductive, maternal, newborn, and Child Health Services in Rural Kenya. *Frontiers in public health*. 2021;9:670239.
26. Lewis S, Mphande M, Chibwana F, et al. Association of HIV status and treatment characteristics with VIA screening outcomes in Malawi: A retrospective analysis. *PLoS One*. 2022;17(1):e0262904. doi:10.1371/journal.pone.0262904.
27. Dzobo M, Dzinamarira T. Effective cervical cancer prevention in sub-Saharan Africa needs the inclusion of men as key stakeholders. Opinion. *Frontiers in Oncology*. 2025;15:1509685. doi:10.3389/fonc.2025.1509685.
28. Maseko TN, Tsoka-Gwegweni JM, Dlamini X. "A Man With a Loving Heart": A Systematic Review of Male Involvement in Cervical Cancer Screening in Africa. *International Journal of Public Health*. 2024;69:1607447.
29. Grace B, Shawe J, Johnson S, Stephenson J. You did not turn up. I did not realise I was invited. *Understanding male attitudes towards fertility awareness and poor engagement*: Human Reproduction Open; 2018.
30. Ganle JK, Obeng B, Segbefia AY, Mwinyuri V, Yeboah JY, Baatiema L. How intra-familial decision-making affects women's access to, and use of maternal healthcare services in Ghana: a qualitative study. *BMC Pregnancy Childbirth*. 2015;15:173. doi:10.1186/s12884-015-0590-4.
31. Nikièma B, Haddad S, Potvin L. Women bargaining to seek healthcare: norms, domestic practices, and implications in rural Burkina Faso. *World Development*. 2008;36(4):608-624.
32. Omigie SO, Uwagbale RF. Patriarchal norms and women access to reproductive healthcare services in Benin City, Nigeria. *NIU Journal of Social Sciences*. 2025;11(2):157-166.
33. Akhtar MU, Bhatti ME, Fredericks S. What factors influence patient autonomy in healthcare decision-making? A systematic review of studies from the Global South. *Nursing ethics*. 2025;32(3):875-891.
34. Annan G, Knowledge AAE. Attitude and Practices of Women towards Cervical Cancer and Screening at the Tamale Teaching Hospital. *Ghana Journal of Nursing and Midwifery*. 2025;2:18-46. doi:10.69600/GJNMID/2025.i2.v2.18-46.
35. Ampofo AG, Adumatta AD, Owusu E, Awuviry-Newton K. A cross-sectional study of barriers to cervical cancer screening uptake in Ghana: An application of the health belief model. *PLOS ONE*. 2020;15(4):e0231459. doi:10.1371/journal.pone.0231459.
36. Saaka SA, Hambali M-G. Factors associated with cervical cancer screening among women of reproductive age in Ghana. *BMC Women's Health*. 2024;24(1):519. doi:10.1186/s12905-024-03367-7.
37. Nuertey BD, Ansong J, Nartey EB, et al. Screening for cervical cancer among adult women: a self-reported nationwide study in Ghana. *BMC Womens Health*. 2025;25(1):619. doi:10.1186/s12905-025-04180-6.
38. *Consolidated Guidelines for HIV Care in Ghana (Ghana Health Service)*: Ghana Health Service National AIDS Control Programme; 2022.
39. WHO. *Ghana Rallies Education Sector Ahead of National HPV Vaccine Rollout*: World Health Organization Ghana; 2025.
40. Amo-Antwi K, Nartey Y, Agambire R, et al. National human papillomavirus vaccination (GH_PV) programme: Ghana at a crossroads; is vaccine supply alone enough to ensure success? *Front Glob Womens Health*. 2025;6:1667727.
41. Abdulai A-M, Sisala IM, Issah I, et al. Knowledge, attitudes, and barriers to cervical cancer screening utilization among female healthcare professionals in the Tamale Metropolis. *Women's Health*. 2025;21:17455057251401319. doi:10.1177/17455057251401319.
42. *AMPATH Ghana*. Accessed April 21, 2023.https://www.ampathghana.org/
43. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science*. 2009;4(1):50. doi:10.1186/1748-5908-4-50.

44. Damschroder LJ, Reardon CM, Widerquist MAO, Lowery J. The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation science*. 2022;17(1):75.
45. Alyafei A, Easton-Carr R. The Health Belief Model of Behavior Change. *StatPearls. StatPearls Publishing Copyright © 2025*, StatPearls Publishing LLC.; 2025.
46. Rahimi S, khatooni M. Saturation in qualitative research: An evolutionary concept analysis. *International Journal of Nursing Studies Advances*. 2024;6:100174. doi:10.1016/j.ijnsa.2024.100174.
47. Hennink M, Kaiser BN. Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*. 2022;292:114523. doi:10.1016/j.socscimed.2021.114523.
48. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007;19(6):349-357. doi:10.1093/intqhc/mzm042.
49. Amporfro DA, Boah M, Yingqi S, et al. Patients satisfaction with healthcare delivery in Ghana. *BMC Health Serv Res*. 2021;21(1):722. doi:10.1186/s12913-021-06717-5.
50. Yaya S, Bishwajit G, Ekholuenetale M, Shah V, Kadio B, Udenigwe O. Urban-rural difference in satisfaction with primary healthcare services in Ghana. *BMC Health Serv Res*. 2017;17(1):776. doi:10.1186/s12913-017-2745-7.
51. Amoah PA, Nyamekye KA, Owusu-Addo E. A multidimensional study of public satisfaction with the healthcare system: a mixed-method inquiry in Ghana. *BMC Health Serv Res*. 2021;21(1):1320. doi:10.1186/s12913-021-07288-1.
52. Musiwa AS, Mavhu W, Nyamwanza O, et al. Relational contexts and men's responsibilities informing men's participation in antenatal care in rural sub-Saharan Africa: A scoping review. *PLOS Global Public Health*. 2025;5(9):e0005227. doi:10.1371/journal.pgph.0005227.
53. Morgan AK, Awafo BA, Quartey T, Cobbold J. [Husbands' involvement in antenatal-related care in the Bosomtwe District of Ghana: inquiry into the facilitators and barriers]. Reprod Health. *Implication des maris dans les soins anténatals: enquête sur les facilitateurs et les barrières: Cas des habitants de Bosomtwe au Ghana*. 2022;19(1):216. doi:10.1186/s12978-022-01506-7
54. Nesane KV, Mulaudzi FM. Cultural barriers to male partners' involvement in antenatal care in Limpopo province. *Health SA*. 2024;29:2322. doi:10.4102/hsag.v29i0.2322.
55. Kapambwe S, Mwanahamuntu M, Pinder LF, Chisele S, Chirwa SC, Parham GP. Partnering with traditional Chiefs to expand access to cervical cancer prevention services in rural Zambia. *Int J Gynaecol Obstet*. 2019;144(3):297-301. doi:10.1002/ijgo.12750.
56. Galle A, Plaieser G, Van Steenstraeten T, et al. Systematic review of the concept 'male involvement in maternal health' by natural language processing and descriptive analysis. *BMJ Global Health*. 2021;6(4):e004909. doi:10.1136/bmjgh-2020-004909.
57. Gottert A, Pulerwitz J, Weiner R, et al. Systematic review of reviews on interventions to engage men and boys as clients, partners and agents of change for improved sexual and reproductive health and rights. *BMJ Open*. 2025;15(1):e083950. doi:10.1136/bmjopen-2024-083950.

Appendix

Abbreviations

AMPATH	Academic Model Providing Access to Healthcare
ANC	Antenatal care
CFIR	Consolidated Framework for Implementation Research
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
HBM	Health Belief Model
LMICs	Low- and middle-income countries
PI	Principal investigator