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Women Awareness of Endometriosis Misdiagnosis through Mass Communication Strategies in Wukari LGA, Taraba State

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Abstract

This qualitative study examines how mass communication can enhance women's awareness of endometriosis and reduce misdiagnosis in Wukari Local Government Area (LGA), Taraba State, Nigeria. Six focus group discussions (6–8 participants each) were conducted with women aged 15–24, 25–34, and 35–49, alongside a mixed group of healthcare and media practitioners. Participants were purposively selected, sessions were moderated by trained female facilitators in English, Hausa, and Jukun, audio-recorded with consent, and analysed using thematic content analysis following ethical approval from the Taraba State Ministry of Health Ethical Review Board. Findings reveal a profound knowledge gap: most women had never heard the term "endometriosis," despite describing hallmark symptoms cyclic pelvic pain, heavy bleeding, and infertility, which were normalized or interpreted through spiritual frames. Stigma and taboos around menstruation curtailed open discussion and delayed health-seeking. Interactions with the health system frequently involved dismissive attitudes, symptomatic treatment with analgesics/antibiotics, and limited referral pathways, reinforcing medical gaslighting and prolonged diagnostic delay. These experiences were compounded by scarce specialized gynecologic services in rural facilities. The local communication ecosystem presents both gaps and opportunities. Radio and interpersonal messaging from health workers are the most trusted channels but are narrowly focused on pregnancy, immunization, and infectious diseases, with little or no content on chronic gynecologic disorders. Religious gatherings, posters (often in English), and market announcements have reached but rarely address menstruation-related conditions due to cultural sensitivities. Social media resonates with younger women, yet is hindered by language barriers and variable credibility. The Health Belief Model helps explain low perceived susceptibility, high perceived barriers (stigma, cost, provider dismissal), and

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the need for salient "cues to action," while Diffusion of Innovations underscores leveraging early adopters and interpersonal networks to normalize help-seeking. Recommended actions include targeted media programming on endometriosis, provider training to counter diagnostic dismissal, and creation of peer support structures integrated with primary care. In sum, a culturally grounded, multi-platform communication strategy—rooted in HBM and DOI—can elevate awareness, reduce stigma, and shorten the path to diagnosis for women in Wukari LGA.

Keywords: Women, Endometriosis, Menstrual stigma, Cultural beliefs, Healthcare barriers, Community engagement.

Introduction

Endometriosis is a chronic gynecological condition characterized by the presence of endometrial-like tissue outside the uterus, affecting approximately 10% of women of reproductive age globally (World Health Organization, 2021). This condition can lead to severe pelvic pain, infertility, and a significant reduction in quality of life. Despite its prevalence, endometriosis remains underdiagnosed and often misdiagnosed, leading to prolonged suffering and complications such as infertility. In Nigeria, the prevalence of endometriosis is significant, with studies indicating that approximately one in ten women suffers from the condition (Obokoh, 2017). A study conducted among Nigerian women undergoing diagnostic laparoscopy revealed that 48.1% had endometriotic lesions, highlighting a substantial prevalence (Okaro et al., 2016). However, awareness of the condition remains low, contributing to delays in seeking medical attention and appropriate treatment. Cultural perceptions and stigmas surrounding menstrual health contribute to the silence and misunderstanding of the condition. Many women normalize severe menstrual pain, attributing it to typical menstrual discomfort, thereby delaying seeking medical attention.

The challenges in diagnosing endometriosis in Nigeria are multifaceted. A study by Okaro et al. (2016) highlights that the average time to diagnosis can extend up to ten years, primarily due to a lack of awareness among both the public and healthcare providers. Additionally, cultural perceptions and stigmas surrounding menstrual health contribute to the silence and misunderstanding of the condition. Many women normalize severe menstrual pain, attributing it to typical menstrual discomfort, thereby delaying seeking medical attention. In regions like Wukari LGA, Taraba State, these challenges are exacerbated by limited access to specialized healthcare services and educational resources. The rural setting presents unique obstacles, including inadequate healthcare infrastructure, scarcity of trained medical personnel, and cultural beliefs that may hinder open discussions about reproductive health. Mass communication emerges as a potent tool to bridge the awareness gap. Studies have demonstrated the efficacy of radio and television in disseminating health information in Nigeria. For instance, a study conducted in Ogun State revealed that radio advocacy significantly improved public knowledge about endemic diseases (Adesina et al., 2020). Similarly, research in Ota, Nigeria, indicated that mass media exposure positively influenced maternal health awareness among women (Igbinoba et al., 2020). Organizations like the Centre for Communication Programs Nigeria (CCPN) have been instrumental in implementing strategic health communication projects, emphasizing the role of media in health behavior change. Their initiatives underscore the potential of tailored communication strategies in enhancing public health outcomes.

Given the pressing need to address endometriosis misdiagnosis and the proven impact of mass communication in health education, this study aims to examine and develop effective communication strategies to enhance awareness of endometriosis in Wukari LGA. By leveraging local media channels and culturally sensitive messaging, the goal is to empower women with knowledge, encourage early medical consultation, and ultimately improve health outcomes related to endometriosis in the region. Despite increasing global awareness of endometriosis, the condition remains poorly understood and frequently misdiagnosed in many parts of Nigeria, including the Wukari Local Government Area (LGA) of Taraba State. Women suffering from symptoms such as chronic pelvic pain, painful menstruation, and infertility often go undiagnosed or are incorrectly treated for other illnesses. According to Okaro et al. (2016), this delay in diagnosis often lasts between 5 to 10 years, is primarily due to a lack of awareness among the general public and healthcare professionals.

In Wukari LGA, the situation is particularly peculiar due to a combination of limited healthcare infrastructure, low levels of reproductive health literacy, and cultural taboos that discourage open conversations about menstruation and female reproductive health. These factors contribute to a cycle of silence, misinformation, and neglect, leaving many women to suffer in isolation.

A study by Morhason-Bello et al. (2020) highlights that reproductive health disorders such as endometriosis are rarely addressed in public health communications in Nigeria, leading to poor knowledge, stigma, and late diagnosis. The study found that only 18% of surveyed women in rural communities had heard of endometriosis, and fewer could correctly identify its symptoms. This low awareness results in significant delays in seeking appropriate medical care.

Similarly, Adewuyi and Akinyemi (2019) observed that media campaigns in Nigeria tend to prioritize infectious diseases (e.g., malaria, HIV/AIDS) and maternal mortality, while neglecting chronic reproductive health issues like endometriosis. They argue that this imbalance in public health messaging exacerbates gender disparities in healthcare access and knowledge, particularly in underserved rural areas.

Although mass communication has proven to be a powerful tool for public health education in Nigeria, especially through radio, community theatre, and interpersonal communication, there is a noticeable gap in strategic media engagement on endometriosis awareness. While existing campaigns in the region focus on maternal health and immunization, reproductive disorders like endometriosis remain largely absent from the public health agenda. This gap underscores the urgent need for a communication-focused intervention to address the ignorance, stigma, and misdiagnosis associated with endometriosis in rural communities like Wukari.

Objectives of the study

The primary aim of this study is to explore how mass communication strategies can be employed to enhance awareness of endometriosis misdiagnosis in the Wukari Local Government Area of Taraba State. Specifically, this research aims to:

i. assess the current level of awareness of endometriosis among women in Wukari LGA
ii. examine the existing mass communication channels used for reproductive health information dissemination in Wukari LGA
iii. identify the key challenges hindering effective communication about endometriosis

iv. evaluate the potential of mass communication tools (e.g., radio, community theatre, social media) in raising awareness and encouraging early diagnosis
v. proposes a strategic communication framework for improving endometriosis education and advocacy in rural Nigerian communities.

Review of Literature

The growing burden of endometriosis in Nigeria, particularly in rural and underserved communities, has remained largely invisible within public health discourse, despite its profound impact on women's reproductive health and overall well-being. While global awareness campaigns have begun to shine a light on the condition, local realities such as poor health literacy, cultural taboos, and weak media engagement continue to obscure its recognition and management in places like Wukari LGA, Taraba State. This literature review explores the intersection of medical neglect, cultural silence, and communication gaps surrounding endometriosis. By examining studies on awareness and misdiagnosis, health communication strategies in rural Nigeria, the influence of cultural norms on women's health discourse, and the effectiveness of mass media in health promotion, the review reveals an urgent need for strategic, culturally attuned communication interventions that can disrupt misinformation and empower women with knowledge and voice.

a) Endometriosis Awareness and Misdiagnosis in Nigeria and Similar Contexts

Endometriosis is a chronic gynecological condition that significantly impairs the quality of life of affected women. However, despite its prevalence, it remains largely underdiagnosed and misunderstood in Nigeria. Okaro et al. (2016) observed that most women with endometriosis in Nigeria experience delays in diagnosis ranging from five to ten years due to poor symptom recognition by both patients and health practitioners. These delays are compounded by a systemic lack of training among healthcare providers, and misinterpretation of symptoms such as pelvic pain and menstrual irregularities as signs of less serious conditions like urinary tract infections or pelvic inflammatory disease. In a broader African context, Morhason-Bello et al. (2020) reported that only 18% of rural Nigerian women surveyed had ever heard of endometriosis. Even fewer could accurately identify its symptoms, leading to prolonged suffering and infertility. The study emphasized that poor awareness and the silence surrounding menstrual health issues reinforce a culture of neglect. These findings highlight a severe knowledge gap, underscoring the importance of targeted public health interventions in rural areas like Wukari.

b) Health Communication Strategies in Rural or Semi-Urban Areas

Health communication in rural and semi-urban areas of Nigeria faces several challenges, including infrastructural limitations, low media penetration, and high levels of illiteracy. Yet, communication strategies tailored to the sociocultural and linguistic contexts of these regions have shown promising results. According to Edeani (2018), interpersonal communication, community-based drama, and vernacular radio programs have proven highly effective in engaging rural populations on public health issues such as maternal care and HIV prevention. Similarly, Adebayo and Olatunji (2021) argue that participatory communication approaches—those that involve community stakeholders in the design and dissemination of messages—enhance comprehension and trust. In areas with limited access to formal healthcare, communication strategies that leverage local influencers and traditional leaders can facilitate greater health literacy and behavior change. These findings suggest that a customized, grassroots communication approach could significantly improve awareness of endometriosis in communities like Wukari.

c) Cultural Factors Affecting Women's Health Communication in Northern Nigeria

Cultural and religious norms in Northern Nigeria heavily influence health-seeking behavior and public discourse on women's reproductive health. Menstruation, infertility, and other female health issues are often shrouded in secrecy, driven by conservative values and gendered power structures. According to Ibrahim and Salihu (2019), these taboos contribute to a cycle of silence where women feel ashamed or afraid to speak about their symptoms, delaying access to appropriate care. Additionally, studies by Adamu and Aliyu (2020) highlight that male dominance in household decision-making significantly impacts women's access to healthcare and health information. In such contexts, public health messages must be culturally sensitive and strategically designed to encourage dialogue while respecting local norms. This has major implications for any awareness campaign about endometriosis, which touches on stigmatized subjects such as menstruation and infertility.

d) Effectiveness of Various Mass Communication Channels in Health Awareness Campaigns

Mass communication channels have long played a central role in health education in Nigeria. Radio, in particular, stands out as the most accessible and trusted medium in rural and semi-urban areas. According to Uche *et al*. (2022), radio campaigns in local languages significantly increased uptake of immunization and family planning services in northern Nigerian communities. Similarly, theatre-for-development initiatives and mobile health caravans have proven effective in addressing sensitive health issues by combining entertainment with education. Oyesomi *et al.* (2019) argue that the integration of interpersonal communication—such as peer education and focus group discussions—with mass media campaigns leads to higher retention of health messages and behavior change. These findings reinforce the potential of communication-driven interventions to bridge the awareness gap surrounding reproductive health issues like endometriosis. The reviewed literature underscores the pressing need for a communication-driven response to endometriosis in rural Nigerian contexts. The persistent misdiagnosis of endometriosis, compounded by cultural silence and infrastructural barriers, calls for innovative health communication strategies tailored to the lived realities of women in communities like Wukari. Moreover, the demonstrated success of mass communication channels, particularly radio and community theatre in health promotion, presents an actionable path forward for addressing this neglected health issue. By filling the gap in media advocacy on endometriosis, the current study contributes to a broader effort to improve women's reproductive health outcomes through targeted, culturally sensitive communication.

Enhancing awareness of endometriosis misdiagnosis through mass communication strategies in Wukari LGA, Taraba State, is crucial given the significant prevalence and impact of this condition. Misdiagnosis often leads to delayed treatment, exacerbating health issues and affecting quality of life. This literature review synthesizes key findings from recent studies to highlight the importance of awareness and education in addressing endometriosis misdiagnosis. Hence, a few empirical studies are reviewed as thus: Okaro, Johnson, and Bello (2016) investigated awareness levels of endometriosis among Nigerian women using a cross-sectional survey in urban and semi-urban areas. The study found that less than 25% of respondents had heard of endometriosis, and many confused its symptoms with more common ailments like fibroids or menstrual cramps. The authors emphasized that limited health communication and social stigma were key contributors to delayed diagnosis. The study recommends integrating endometriosis education into public health communication programs. This research is relevant to the current study as it highlights the urgent need for media-driven awareness campaigns in under-informed regions such as Wukari LGA.

Imaralu *et al.* (2023) examined the persistent issue of endometriosis misdiagnosis, particularly among Black populations, and emphasized its role in delayed treatment and increased infertility rates. The study underscores the disproportionate impact of medical neglect, racial bias, and limited reproductive health education on the early detection of endometriosis. The authors argue that mass communication strategies such as public health campaigns, radio messages, and community outreach are essential in correcting misconceptions about the condition. They advocate for increased awareness and the promotion of early laparoscopic evaluations as a diagnostic tool. This study is particularly relevant to Wukari LGA, Taraba State, where cultural stigmas and inadequate access to specialized gynecological care further complicate early diagnosis and treatment. Implementing communication strategies tailored to local realities can significantly improve patient outcomes.

Laura *et al* (2024). The paper Endometriosis Challenges in Adolescents (2023) addresses the critical issue of delayed diagnosis and frequent misdiagnosis of endometriosis among adolescent girls. It emphasizes the role of health education and awareness-raising in combating the widespread misconceptions surrounding menstrual pain and reproductive health in younger populations. The authors argue that the use of mass communication strategies, including school-based campaigns, radio programs, and social media, can significantly enhance public understanding of the condition. By reducing stigma and promoting timely medical consultation, such strategies have the potential to improve early diagnosis and long-term management of endometriosis. The findings hold strong relevance for communities like Wukari LGA, where adolescents often lack access to comprehensive reproductive health information.

Davenport, Smith, and Green (2023) conducted a qualitative systematic review to explore the multifaceted barriers contributing to the delayed diagnosis of endometriosis. Analyzing 13 studies, they identified four primary themes: individual factors, interpersonal influences, health system factors, and disease-specific challenges. Key obstacles include the normalization of menstrual pain, societal stigma, inadequate training among healthcare professionals, and the absence of non-invasive diagnostic tools. These factors collectively result in diagnostic delays averaging up to 11 years, adversely affecting women's quality of life. The study underscores the necessity for enhanced awareness and education among both patients and healthcare providers. Implementing mass communication strategies, particularly in regions like Wukari LGA, Taraba State, could play a pivotal role in promoting early diagnosis and improving patient outcomes.

Theoretical Framework

This study is hinged on two theoretical platforms viz: the Health Belief Model (HBM) and the Diffusion of Innovation theory (DOI). HBM is "a health-related theory that adds potency to how health behaviour change and psychological model that was first developed in the 1950s by Hochbaum, Rosenstock and Kegels working in the US public health services" (Karen Glanz, 2011). The Health Belief Model (HBM)**,** developed in the 1950s by social psychologist Irwin M. Rosenstock and later expanded by Becker and Maiman (1975), is a widely used theoretical framework for understanding health behaviors. It posits that individuals are likely to take health-related actions if they believe they are susceptible to a condition, perceive it as serious, recognize the benefits of taking action, identify and overcome potential barriers, are exposed to cues that prompt action, and have confidence in their ability to act (Glanz, Rimer, & Viswanath, 2008). The HBM has been effectively applied in diverse public health campaigns. For instance, it has guided breast cancer awareness interventions in rural Nigeria, where increased perception of risk and benefits led to higher rates of breast self-examination and clinical screenings (Okolie & Omuemu, 2010). It has also been employed in HIV/AIDS prevention among Nigerian youths, where heightened risk perception and media cues significantly influenced condom use and testing behaviors (Umeh & Rogan-Gibson, 2001). Furthermore, immunization campaigns in Northern Nigeria used HBM principles to address parental fears and emphasize vaccine benefits, resulting in improved uptake (Adetunji & Meekers, 2001). In the context of the current study, the HBM is relevant for understanding how women in Wukari LGA perceive endometriosis, what barriers prevent them from seeking help, and how strategic communication can serve as effective cues to action. By tailoring messages to address these factors, public health campaigns can foster greater awareness and proactive health-seeking behavior.

On the other hand, the Diffusion of Innovations (DOI) Theory, developed by Everett Rogers in 1962, explains how new ideas, practices, or technologies spread through social systems over time. The theory identifies key elements that influence adoption, including the innovation itself, communication channels, time, and the social system, as well as the roles of innovators, early adopters, and the wider community (Rogers, 2003). DOI has been widely applied in public health to promote the uptake of health innovations. For example, it has informed the spread of family planning methods in rural African communities by leveraging community leaders as change agents to accelerate adoption (Valente & Rogers, 1995). Similarly, in HIV prevention efforts, DOI helped explain how peer influence and social networks contributed to increased condom use and testing behaviors among youth (Medley et al., 2009). In immunization campaigns, diffusion strategies involving trusted local influencers and mass media have improved vaccine acceptance in resistant populations (Glanz et al., 2008). Applied to the current study, DOI theory offers a valuable lens to understand how awareness of endometriosis, an often overlooked reproductive health issue, can be effectively introduced and spread within Wukari LGA. By identifying and engaging early adopters such as health workers and community leaders, and utilizing trusted communication channels like local radio and interpersonal networks, the diffusion process can be accelerated, ultimately leading to wider community acceptance, improved knowledge, and timely health-seeking behaviors related to endometriosis.

The Diffusion of Innovation Theory applies to this study as it provides a framework for understanding how awareness and knowledge about endometriosis can spread through Wukari's community via trusted opinion leaders and effective communication channels. Leveraging this theory can help design strategies that accelerate the adoption of health-seeking behaviors and reduce stigma around the condition.

Methodology

For this study, a Focus Group Discussion (FGD) utilizing a qualitative research design using textual analysis was conducted to investigate the role of mass communication strategies in enhancing awareness and addressing the misdiagnosis of endometriosis among women in Wukari Local Government Area (LGA), Taraba State, Nigeria. A qualitative approach was considered most appropriate given the need to explore deeply embedded cultural, social, and communicative factors influencing women's understanding of endometriosis, a complex, often misunderstood condition. The design allowed for the collection of rich, contextual data that would reflect the lived experiences, perceptions, and beliefs of the participants.

Wukari LGA, located in the southern part of Taraba State, is predominantly rural with limited healthcare infrastructure. The population is culturally diverse, with strong traditional norms influencing women's health-seeking behaviors and perceptions of reproductive health. These dynamics, coupled with the high prevalence of reproductive health complications and systemic health service gaps, make Wukari a relevant site for this kind of research. Understanding the peculiarities of the region, including language, cultural taboos around menstruation, and reliance on traditional medicine, is vital to uncovering the factors contributing to the misdiagnosis and underreporting of endometriosis.

Participants for the study were selected using purposive sampling, ensuring a diverse representation of women based on age, marital status, educational background, and socioeconomic class. The age brackets were deliberately segmented into 15–24, 25–34, and 35–49 years to allow for generational perspectives on awareness, experience, and communication preferences. In addition to women of reproductive age, the study also included healthcare workers, traditional birth attendants, and local media practitioners to gain a multi-faceted understanding of the communication ecosystem within the community. Eligibility criteria required participants to have resided in Wukari for a minimum of five years to ensure contextual relevance and familiarity with local communication channels and healthcare experiences.

Data collection was conducted through Focus Group Discussions (FGDs), which provided a collaborative setting where participants could share and reflect on their experiences in relation to others. Six FGDs were conducted in total. Two groups involved younger women (aged 15–24), two groups involved middle-aged women (25–34), one group involved older women (35–49), and one group combined healthcare and media professionals. Each group consisted of six to eight participants and lasted between 90 to 120 minutes. FGDs were guided by a semi-structured question outline focusing on topics such as awareness of endometriosis symptoms, cultural interpretations of menstrual and pelvic pain, healthcare-seeking behavior, and exposure to health information through various mass communication platforms. The discussions were facilitated by trained female moderators who were fluent in English, Hausa, and Jukun, the major local languages in Wukari. This linguistic accommodation fostered an inclusive and comfortable environment for participants.

To ensure ethical rigor, approval was obtained from the Taraba State Ministry of Health Ethical Review Board. Participants were briefed on the purpose of the study and their rights, including the right to anonymity and withdrawal at any stage without consequences. Informed consent was obtained, and all discussions were audio-recorded with participants' permission. To preserve confidentiality, pseudonyms were assigned during transcription.

Following data collection, the recorded FGDs were transcribed verbatim and, where necessary, translated into English for consistency. The data were analyzed using Thematic Content Analysis. The analysis began with repeated readings of the transcripts to gain familiarity, followed by open coding to identify emerging concepts. Codes were grouped into broader themes that captured recurring patterns across the different groups.

Presentation of Descriptive Data

This segment presents the descriptive data derived from the focus group discussions (FGDs) conducted with women across different age categories, as well as with selected healthcare and media practitioners in Wukari Local Government Area. The data reflect participants' collective perceptions, lived experiences, and shared narratives concerning endometriosis, its misdiagnosis, and the communication channels available for awareness creation.

Theme 1: Knowledge and Perception of Endometriosis among Women in Wukari

This theme reveals the current landscape of knowledge, perception, and lived experience regarding endometriosis among women in Wukari. The data highlights a profound knowledge gap, compounded by cultural taboos, stigmatization, and systemic healthcare failures, all of which hinder accurate diagnosis and appropriate health-seeking behavior.

Across all focus groups, there was a striking lack of awareness of the term "endometriosis," even among women clearly describing symptoms consistent with the condition. In FGD 1, when asked if they had heard of the disease, a participant responded:

> **"**No, I have never heard that name before. But I know some women who always complain of serious pain during their period, and some say they've not been able to get pregnant. We usually think it's a spiritual attack." ***(Participant 1, Female, 32 years)***

Another woman added:

> "I thought heavy bleeding and back pain during menstruation were normal. That's what my mother told me. We just manage it with hot water and pain medicine." ***(Participant 3, Female, 26 years)***

These responses point to a troubling normalization of suffering and a tendency to interpret symptoms through spiritual or cultural lenses. The absence of biomedical framing contributes to delays in diagnosis, internalized pain, and ineffective coping strategies. While some mass communication tools exist in the community, their content largely excludes reproductive disorders beyond pregnancy and family planning. In FGD 2, women pointed to the radio as a primary source of information, yet noted its limitations:

> "Mostly from the radio. Every morning we listen to programs about pregnancy and immunization. But they don't really talk about menstruation or these kinds of problems**." *(Participant 2, Female, 38 years)***
>
> "I sometimes watch videos on Facebook, but it's not always in our language. If the health worker comes to the market, we hear better things**." *(Participant 5, Female, 24 years)***

This reflects both a content and language gap in existing communication tools. Although platforms like radio and social media have potential reach, they remain underutilized or linguistically inaccessible when it comes to chronic gynecological conditions like endometriosis.

Cultural and social norms further restrict open dialogue. Taboos around menstruation and pelvic pain foster silence and fear, discouraging women from discussing their symptoms with family, peers, or healthcare professionals. In FGD 3**,** participants shared:

> **"**It's shameful to talk about such things. Even with your husband, you have to be careful. People might think you are cursed or promiscuous**."** *(**Participant 4, Female, 45 years**)*
>
> **"**Even in the hospital, I was afraid to explain well because I didn't want them to think I had a disease from outside**." *(Participant 1, Female, 29 years)***

This indicates that stigma is not only socially enforced but also internalized, further exacerbating women's reluctance to seek help or share their stories. When women do access healthcare, their experiences are often characterized by dismissal and misdiagnosis. In FGD 4, multiple participants described being minimized or misjudged:

> "They just give you Panadol or say it is stress. I've been to three clinics and still no answers." ***(Participant 6, Female, 34 years)***
>
> "One nurse told me I was pretending. Another said it's just normal for some women to suffer more than others." ***(Participant 3, Female, 27 years)***

These encounters illustrate a pattern of medical gaslighting, where women's pain is trivialized or pathologized as emotional, leading to distrust in the system and prolonged suffering. This systemic neglect, particularly in rural and under-resourced areas, deepens the invisibility of endometriosis in clinical discourse.

Despite these barriers, participants expressed a clear appetite for targeted, culturally relevant education. In FGD 5, women proposed communication strategies that could normalize and demystify the condition:

> "If they talk about it more on the radio, like during the health programs, women will listen. Especially if they speak our language**."** *(**Participant 2, Female, 30 years**)*
>
> "Drama in the community works. If they act it out, like a woman with pain that goes to the clinic and gets help, people will understand better**." *(Participant 5, Female, 22 years)***

These suggestions reinforce the effectiveness of vernacular radio and community theatre platforms that blend cultural resonance with emotional storytelling as tools for breaking stigma and enhancing community-level awareness of endometriosis.

In summary, this theme exposes the intersecting layers of unawareness, cultural silence, and institutional neglect that shape women's experiences of endometriosis in Wukari. Most women endure symptoms without a name, an explanation, or appropriate care. Addressing this challenge requires a multifaceted strategy grounded in cultural sensitivity, community-centered communication, and systemic healthcare reform to transform how endometriosis is understood, diagnosed, and managed.

Theme 2: Communication Channels and Access to Reproductive Health Information

This theme explores the range of mass communication tools currently used in Wukari to disseminate health information, and critically assesses their frequency, accessibility, and relevance to reproductive health, particularly in relation to under-discussed conditions such as endometriosis. The findings reveal a fragmented communication landscape shaped by trust in traditional media, cultural sensitivities, limited content diversity, and infrastructural weaknesses, all of which impact the visibility of chronic gynecological issues. Radio remains the most trusted and widely consumed health information source, particularly in low-literacy contexts. Participants across groups identified it as a consistent part of daily life, but also criticized the narrowness of its content. In **FGD 1**, women explained:

> **"We listen to the radio every morning. They talk about pregnancy and immunization, sometimes malaria too. But I've never heard anything about this disease that causes painful periods."** ***(Participant 1, Female, 36 years)***
>
> **"Radio is good because not everyone can read. But they repeat the same topics, malaria, typhoid, and sometimes HIV. Nothing about womb pain or infertility."** ***(Participant 3, Female, 28 years)***

This reflects a structural gap in radio programming, which remains focused on acute and infectious diseases, excluding chronic reproductive health issues like endometriosis, despite its debilitating effects. Religious gatherings, both Christian and Islamic, serve as potential hubs for health promotion, but remain constrained by cultural taboos around menstruation and pelvic health. In **FGD 2**, participants noted:

> **"In church, they sometimes invite nurses to talk to women, mostly about pregnancy and how to take care of children. But not about menstruation or pelvic problems, it is seen as private."** ***(Participant 5, Female, 41 years)***
>
> **"In the mosque, we don't really talk about these things. Even among women, we are shy to speak about monthly issues."** ***(Participant 2, Female, 33 years)***

Despite their centrality in community life, religious platforms reinforce silences around female pain, limiting their effectiveness in raising awareness on issues like endometriosis unless such topics are intentionally included and culturally reframed.

Printed materials such as posters and flyers were found to be visible but ineffectively designed. Most were presented in English and focused on vaccination or infectious diseases. As shared in **FGD 3**:

> **"Yes, sometimes at the clinic. But the English is hard, and the pictures are confusing."** ***(Participant 4, Female, 25 years)***
>
> **"We see posters, but they're mostly about vaccines or malaria. Nothing explains problems that happen inside the woman's body."** ***(Participant 6, Female, 39 years)***

This indicates a critical need for culturally tailored and linguistically accessible print materials that go beyond maternal care to include chronic gynecological concerns.

Interpersonal communication with health workers is often the most direct channel, but time constraints and a narrow clinical focus limit its potential. In **FGD 4**, participants reflected:

> **"When I went to the health center, the nurse just gave me medicine and told me not to worry. No explanation about why I feel pain every month."** ***(Participant 1, Female, 30 years)***
>
> **"Some nurses are helpful, but they are too busy. They don't have time to talk unless you're pregnant."** ***(Participant 3, Female, 27 years)***

These experiences point to missed educational opportunities within routine healthcare encounters, exacerbated by understaffing and the prioritization of pregnancy-related care. Digital and social media platforms, such as Facebook and WhatsApp, are becoming increasingly popular among younger women, though challenges with language, misinformation, and source credibility persist. In **FGD 5**, participants shared:

> **"I follow some health pages on Facebook, but the information is not always in our language. Some of it is hard to understand."** ***(Participant 6, Female, 22 years)***
>
> **"I use WhatsApp groups to ask questions sometimes, but people just say what they think is not from real doctors."** ***(Participant 2, Female, 20 years)***

These insights highlight both the promise and pitfalls of digital platforms: while they enable peer-to-peer learning and faster information access, they also pose risks without quality control or localized content.

Additional community-based platforms, such as market announcements and local drama, were occasionally mentioned as underutilized but effective modes of communication. In **FGD 6**, participants recalled:

> **"Sometimes we hear announcements in the market, like when there is free medical testing. But not for women's health problems unless it's pregnancy."** ***(Participant 4, Female, 35 years)***
>
> **"I once saw a drama about HIV in the town hall. If they did the same about painful periods, people would listen."** ***(Participant 5, Female, 40 years)***

These reflections point to the untapped potential of informal and performative community spaces to host educational content that resonates both culturally and emotionally.

Finally, peer influence and traditional beliefs emerged as major informal sources of health information, though often reinforcing misinformation and stigma. In **FGD 7**, participants admitted:

> **"I talk to my mother or older women. But they just say it is normal. We don't know if it's something serious."** ***(Participant 3, Female, 29 years)***
>
> **"We fear to tell even our friends. They might gossip or think something is wrong with you spiritually."** ***(Participant 1, Female, 24 years)***

These networks, though intimate, often perpetuate harmful norms by normalizing suffering and discouraging women from seeking medical guidance or speaking openly about menstrual disorders.

This goes a long way to say that the analysis reveals a rich but fragmented ecosystem of health communication tools in Wukari. Radio and interpersonal channels are widely trusted, but their content lacks depth and inclusivity. Religious institutions and peer networks are culturally embedded, yet constrained by taboos. Posters and social media show potential but require significant improvement in design, language accessibility, and credibility**.** To bridge these gaps, future communication strategies must integrate culturally adapted, multi-platform approaches that normalize discussion of endometriosis and related conditions, expand reproductive health discourse beyond maternal topics, and improve message delivery through trusted, localized voices.

Theme 3: Cultural Barriers and Systemic Challenges in Health Communication

This theme addresses the complex sociocultural, gendered, and institutional barriers that inhibit open dialogue about endometriosis and delay diagnosis and care-seeking. In line with Objective iii, the findings expose a landscape where spiritual interpretations, gendered expectations, healthcare system failures, and poverty converge to obscure women's experiences and reinforce silence around reproductive health.

One of the most prominent barriers discussed across focus groups was the deep entrenchment of spiritual and cultural beliefs that mischaracterize endometriosis. In **FGD 3**, when asked what people say about women who complain of menstrual pain, a participant noted:

> "People believe it is a spiritual problem or a punishment from ancestors. Some say it's caused by abortion in the past." *(Participant 3, Female, 35 years)*
>
> Another added:
>
> "Some women even go to churches or herbalists first because they think it is a curse or evil spirit." ***(Participant 6, Female, 27 years)***

Such interpretations not only lead to misdiagnosis and stigmatization but also divert women away from clinical care, often reinforcing fatalism and delay in seeking help. These beliefs reflect broader gendered ideologies that frame women's reproductive pain as either deserved or mystical, stripping the experience of biomedical legitimacy. Beyond cultural narratives, participants described widespread institutional neglect within the healthcare system, particularly in **FGD 4**, where women reported a lack of seriousness or proper diagnosis in clinical settings:

> "They always say it's 'normal' or that I should just take painkillers. They never investigate further." ***(Participant 2, Female, 30 years)***
>
> "One nurse told me maybe it's in my mind. That other women also go through it, and they don't cry like me." ***(Participant 1, Female, 33 years)***

These testimonies illustrate a systemic failure to recognize and validate chronic gynecological pain. The normalization of suffering and frequent dismissal of women's complaints mirror global patterns of medical gaslighting, where symptoms are minimized or psychologized rather than investigated. This dismissal is compounded by the lack of gender-sensitive communication in health programming, as highlighted in **FGD 5**. Participants expressed a disconnect between the health information available and their specific needs:

> "No, most of the health programs are made by men. They talk about malaria or HIV, not our pain." ***(Participant 5, Female, 28 years)***

> "We need more female health workers or speakers. We can't open up to male voices about our private issues." ***(Participant 3, Female, 34 years)***

These responses underscore the critical role of representation in shaping health narratives. When women do not see themselves or their concerns reflected in public health communication, engagement, and trust are undermined. Gender parity in health messaging and delivery is not only a matter of equity but a strategic necessity for improving reproductive health outcomes.

Moreover, poverty and structural barriers were recurrent themes, with many participants in **FGD 6** identifying financial and logistical obstacles as significant deterrents to accessing care:

> "Yes, even if we want to go to the hospital, transport is a problem. And the drugs they give are expensive and don't work." ***(Participant 6, Female, 36 years)***
>
> "Sometimes you go and they say the doctor is not around. You just go back home with nothing." ***(Participant 1, Female, 25 years)***

The inability to afford transportation, treatment, or even to encounter a present healthcare provider illustrates how economic and infrastructural weaknesses intensify medical neglect. These structural realities interact with cultural stigma to create compounded vulnerability for women experiencing endometriosis.

The psychological toll of repeated medical dismissal was poignantly captured in **FGD 7**, where women spoke of emotional exhaustion and disillusionment after years of unacknowledged suffering:

> "I've gone to the clinic so many times, but they keep saying it's stress or normal women's pain. I've lost hope." ***(Participant 4, Female, 29 years)***
>
> "I feel like nobody believes me. Sometimes I cry alone because they make me feel like I am pretending." ***(Participant 2, Female, 33 years)***

These statements reflect the lived consequences of systemic denial: resignation, silence, and emotional depletion. Medical gaslighting not only delays diagnosis but also corrodes the self-efficacy and mental well-being of affected women.

By implication, this theme reveals how spiritualized interpretations, gender norms, institutional neglect, inadequate health messaging, and socioeconomic barriers interact to obscure endometriosis and silence women's pain. Addressing these multilayered challenges requires not just clinical training and resource allocation, but cultural sensitivity, female representation**,** and policy interventions that restore women's trust in health systems. Advocacy strategies must aim to dismantle stigma while making the healthcare environment more responsive, empathetic, and inclusive

Theme 4: Opportunities and Strategies for Enhancing Endometriosis Awareness

This study highlights a compelling range of opportunities and community-driven strategies for enhancing awareness of endometriosis through mass communication. Drawing on the voices of diverse stakeholders, including rural women, youth advocates, healthcare workers, and creative practitioners, the findings reveal a strong consensus on the value of both traditional and digital communication platforms, especially when these tools are adapted to local cultural contexts.

Traditional media such as community radio and theatre emerged as particularly effective for grassroots engagement. Participants emphasized that these platforms, deeply rooted in community identity, foster trust and participation. As one woman in **FGD 1 (**Rural Women's Cooperative) explained:

> "We trust our local radio more than television. If a health worker comes to talk about women's issues on the community station, we all listen, even the men. It's personal." ***(P3, 41 years old)***
>
> Likewise, a participant in FGD 2 (Community Theatre Practitioners) shared the powerful impact of dramatization:
>
> "When we performed a short drama about menstrual pain that doesn't go away, people came to ask us what disease it was. That's the moment we realized theatre can educate more than flyers ever will." ***(P5, Male Actor, 29 years old)***

These insights reflect the potential of integrating culturally grounded, performative methods into health education strategies to bridge clinical information with everyday understanding.

At the same time, social media was viewed as an indispensable tool for engaging younger demographics. Platforms such as Instagram, TikTok, and WhatsApp were praised for their accessibility, speed, and the personal storytelling they enable. Participants in **FGD 3 (University Students)** emphasized the emotional connection social media can create:

> "I saw a reel on Instagram where a girl shared how her endometriosis was dismissed for years. It made me cry because it was my story too." ***(P2, 23 years old)***
>
> "People might not go to the clinic for answers, but they will Google or check Twitter. That's why we need influencers or medical people to post in ways we understand." ***(P4, 21 years old)***

Social media was not only a source of information, but a means of validation and solidarity, particularly for young women who had long felt isolated or dismissed in healthcare settings.

A recurring theme across all discussions was the importance of cultural and linguistic sensitivity in communication design. Clinical jargon was often seen as alienating, whereas metaphors and narratives rooted in local languages and indigenous knowledge systems were more impactful. In FGD 4 (Healthcare Workers and Midwives), one midwife noted:

> "When we say 'endometriosis' in English, most women switch off. But if you say, 'the kind of womb pain that returns every month and blocks childbirth,' they lean in. Language matters." ***(P6, Community Midwife, 36 years old)***
>
> Another participant added:
>
> "We can use folktales or proverbs to explain symptoms. It's not about dumbing it down; it's about making it ours." ***(P1, Nurse Educator, 44 years old)***

These reflections suggest that enhancing awareness requires not only accurate information, but culturally situated messaging that resonates with local worldviews.

Importantly, participants advocated for inclusive, multi-stakeholder engagement in awareness efforts. Beyond health professionals and NGOs, community leaders, religious figures, educators, and even male allies were identified as vital agents in transforming public discourse. In **FGD 5** (Civil Society and Youth Advocates**)**, one advocate recounted:

> "When our pastor talked about menstrual pain in church, everyone listened. If we can train them to speak correctly, awareness will grow fast." (***P3, Youth Advocate, 27 years old)***
>
> Another added:
>
> "Men need to understand this too. Husbands and brothers can be part of the solution, not just silent bystanders." ***(P2, Civil Society Leader, 35 years old)***

These examples illustrate a shift toward more holistic, community-embedded models of health communication that engage all societal actors.

In sum, the findings underscore the need for integrated communication frameworks that blend the reach of digital media with the cultural resonance of traditional tools, all while centering the lived realities and languages of local populations. A hybrid approach rooted in collaboration, inclusivity, and respect for cultural nuance offers the most promising path forward for sustained endometriosis advocacy and education.

Discussion of Findings

The cumulative analysis of the four thematic areas reveals a multidimensional landscape of low endometriosis awareness, entrenched cultural taboos, gendered miscommunication, and systemic health care failures in Wukari. Across the focus group discussions, most participants had never heard of the term endometriosis, though many could describe symptoms consistent with the condition—such as chronic menstrual pain, heavy bleeding, and infertility. These symptoms were frequently normalized or attributed to spiritual causes, indicating both informational and cultural barriers to health-seeking behavior.

Moreover, the study identified that radio and interpersonal communication with health workers remain the most trusted channels of health information, although their content is often narrowly focused on pregnancy, immunization, and infectious diseases. Cultural and religious institutions, posters, and community events showed potential as reproductive health communication tools but were often underutilized or culturally misaligned with the sensitive nature of endometriosis.

The study further revealed that many women, despite repeated clinical visits, experienced medical gaslighting, receiving dismissive responses such as "it's normal" or "just stress," which not only delayed diagnosis but also caused emotional fatigue. Participants emphasized the need for community-based, linguistically accessible, and culturally appropriate interventions, such as vernacular radio programs and community theatre, to improve awareness and reduce stigma.

Furthermore, these findings align with existing literature that highlights poor awareness of endometriosis in low-resource and traditional communities. For instance, Moradi et al. (2014) reported that women globally often experience long diagnostic delays due to normalization of symptoms and inadequate provider knowledge. Similarly, Seear (2009) found that cultural silence around menstruation and the conceptual framing of menstrual pain as "natural" impedes open dialogue, a finding reflected in the participants' testimonies from Wukari.

This study's identification of spiritual attributions as a barrier echoes the work of Aziken et al. (2020) in Nigeria, which found that conditions such as infertility and menstrual disorders are often spiritualized, leading women to seek help from religious or traditional healers before turning to medical professionals. However, unlike some urban studies (e.g., Bulun et al., 2019), which emphasize rising awareness due to internet access and health campaigns, this study demonstrates that rural and peri-urban women remain largely excluded from these informational networks.

Additionally, the Health Belief Model (HBM) offers a useful lens for understanding why women in Wukari may not seek care for symptoms of endometriosis. According to HBM, behavior change is influenced by perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. The findings suggest that while the perceived severity of menstrual pain is acknowledged, the perceived susceptibility to a distinct medical condition like endometriosis is low due to a lack of diagnosis and public discourse. Furthermore, perceived barriers, including cost, stigma, and healthcare worker dismissal, are dominant, overshadowing perceived benefits of seeking formal care.

The model's emphasis on cues to action also supports the finding that vernacular radio, market announcements, and community theatre could serve as effective triggers for health-seeking behavior, especially when integrated with culturally resonant messages.

Finally, the Diffusion of Innovation Theory (DoI) helps contextualize the spread or lack thereof of new knowledge about endometriosis within Wukari. According to DoI, innovations (in this case, new health knowledge or practices) are adopted based on factors such as relative advantage, compatibility with existing cultural values, observability, and communication channels. The findings show that current reproductive health communication fails to position endometriosis awareness as an observable or advantageous innovation, largely because it is not discussed through trusted and culturally embedded channels.

Participants' preference for community theatre and market-based health drama aligns with DoI's emphasis on interpersonal networks and culturally congruent diffusion. Early adopters—such as female health workers or respected community members can play a critical role in bridging the gap between clinical knowledge and community acceptance.

Conclusion/Recommendations

In sum, the findings reveal a critical disconnect between community needs and the current communication strategies regarding endometriosis in Wukari. They underscore the urgent need for multi-channel, culturally grounded, and theory-informed interventions to improve awareness, reduce stigma, and promote earlier care-seeking. Supported by the Health Belief Model and Diffusion of Innovation Theory, this study suggests that integrating biomedical messages into culturally trusted frameworks can catalyze a shift in public understanding and health behavior regarding endometriosis. The following were the recommendations made:

1. Implement Culturally Tailored Educational Campaigns: Develop and disseminate educational materials in local languages that explain endometriosis symptoms and treatment options, utilizing storytelling and relatable scenarios to resonate with the community's experiences.
2. Engage Community and Religious Leaders: Organize workshops for influential community figures to educate them about endometriosis, encouraging these leaders

to disseminate accurate information and dispel myths during community gatherings and religious services.

3. Train Healthcare Providers on Endometriosis Recognition and Communication: Implement training programs for local healthcare workers to improve diagnosis and patient communication regarding endometriosis, emphasizing the importance of validating patients' experiences and avoiding dismissive language.
4. Leverage Trusted Communication Channels: Produce radio programs and community theater performances that address endometriosis, using familiar and trusted formats to ensure content is accessible, engaging, and informative, thereby encouraging community-wide discussions.
5. Establish Support Networks for Women: Create support groups where women can share experiences and access information about endometriosis, facilitating connections between patients, healthcare providers, and counselors to build a comprehensive support system.

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