

Understanding Rural Women's Intention toward Breast Cancer Screening: A qualitative study
using the Theory of Planned Behavior in Bangladesh

by

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Abstract

Breast cancer remains one of the leading causes of cancer-related mortality in Bangladesh. Although low-cost screening methods, such as Clinical Breast Examination (CBE), have been introduced with a focus on rural populations, where approximately 70% of the population resides, screening participation among rural women remains critically low. Given the limited research on rural women's decision-making regarding cancer screening, this study aimed to examine how the socio-cultural environment and health knowledge shape women's attitudes, social and familial influences, and perceived confidence in seeking preventive care, and how these factors, in turn, influence their intention to participate in screening.

Ten rural women were interviewed to explore their lived experiences, focusing on socio-cultural stigma, health beliefs, decision-making confidence, and the influence of family and community support. The findings indicate that women's attitudes toward preventive cancer screening, as well as the support they receive from family and society, are strongly shaped by cultural taboos and social norms surrounding breast health. Many participants had a limited understanding of preventive screening, and their perceived risk of breast cancer and perceived benefits of screening significantly influenced their attitudes. Additionally, social influences rooted in stigma, limited health knowledge, lack of formal health communication, and women's restricted autonomy over health decisions emerged as key barriers.

A key finding of this study is that, although structural and logistical barriers exist, participants did not perceive them as the primary obstacles. Instead, perceived risk, perceived benefits, the need for spousal permission, and the availability of female healthcare providers emerged as the most influential factors shaping future screening intentions.

This study contributes to the application of the Theory of Planned Behavior (TPB) in a restrictive sociocultural context by showing that, while subjective norms, particularly spousal influence, directly shape behavioral intentions, TPB constructs alone do not fully explain women's screening behavior. Instead, these constructs are influenced by broader socio-cultural conditions and gaps in health communication. The study also offers participant-informed implications, highlighting the need for culturally sensitive and context-specific health communication strategies to improve screening participation among rural women.

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Chapter 1 - Introduction

Every minute, four females are diagnosed with breast cancer worldwide, and one female dies from it (Kim et al., 2025). In 2022, around 2.3 million new cases of breast cancer were found globally, with 670,000 deaths from female breast cancer, making BC the leading cancer diagnosis and cause of cancer-related death (Bray et al., 2024). Although countries worldwide are implementing various strategies to control the prevalence of breast cancer and cancer-related death, regional differences in age structure, risk factors, and healthcare infrastructure shape disease severity and outcome in each context. For instance, while breast cancer is more prevalent in women aged 60 to 70 years in Western countries, the peak range in Asia usually falls between 40 and 50 years (Leong et al., 2010). Asian countries account for nearly 1 million of the 2.3 million breast cancer cases reported in 2022 and 47.3% of related deaths (Fu et al., 2025). It is also the most common cancer in 43 out of 47 Asian countries and the leading cause of death among females in 32 of them (Fu et al., 2025), highlighting the significant disease burden in Asian countries compared to that in Western countries (Arnold et al., 2022).

Bangladesh, a lower-middle-income country in South Asia, is facing a rising burden of breast cancer. In the past five years, the incidence of breast cancer has continued to increase, accounting for 32.8% of female cancer cases, with 150,781 new cases in 2023 alone, and causing 69% of cancer-related deaths (Islam, 2023; Shamsi, 2021). The high mortality rate is exacerbated by late-stage diagnosis, with 90% of the cases being diagnosed at stage III-IV (Story et al., 2012), which can be attributed to limited awareness and inadequate knowledge about available cancer screening methods like CBE (Clinical Breast Examination), BSE (Breast Self-Examination), or mammograms (Alam et al., 2021).

Despite national efforts to expand access to screening, particularly through Clinical Breast Examination (CBE), by establishing CBE centers in 271 Upazila Health Complexes (UHCs) across all districts to ensure access to screening for women in low-resource settings (Sarker et al., 2018), participation in screening, especially among rural women, remains low, with recent studies reporting engagement rates <1% (Azim et al., 2025). Given that approximately 70% of the population resides in rural areas, understanding the factors influencing women's screening behavior is essential.

While existing research has primarily focused on urban or hospital-based samples and quantitative assessments of awareness and knowledge (Alam et al., 2021; Amin et al., 2020; Hasi et al., 2025), there remains a gap in the deeper exploration of the contextual and psychological factors that can influence rural women's participation in preventative breast cancer screening. Increasingly, contemporary studies highlight communicative and relational environments, including how information is accessed, interpreted, and socially negotiated (Srinath et al., 2023). In the context of rural Bangladesh, communication surrounding breast health is shaped by cultural taboos, limited formal messaging, and reliance on informal networks, all of which influence women's understanding of disease risk and preventive care. Therefore, this study will adopt a qualitative approach to explore these contextual and communicative factors that motivate rural women's intention to participate in preventative breast cancer screening (CBE/MMG) using the theory of planned behavior (Ajzen, 1991), a behavioral theory that explains people's decision-making to engage in a certain behavior.

Problem Statement

Women in Bangladesh, despite having overall positive attitudes towards preventative breast cancer screening, rarely participate. This disconnect between their attitude towards

preventative screening and actual behavior of participation suggests that other factors beyond might actively limit screening behavior.

While a majority of people in Bangladesh reside in rural areas, significant healthcare access disparities exist between urban and rural parts (Ahmed et al., 2015; Huq et al., 2024). Some studies have found that rural women are approximately three times less likely to participate in screening than their urban counterparts (Hoq et al., 2023). Not only are factors like logistical and access differences putting rural women at a higher health risk, but their care-seeking behaviors are also influenced by complex sociocultural and communicative environments that they have to navigate. Women frequently lack the vocabulary, social permission, and safe spaces necessary to discuss breast-related concerns. Discussions about breast health are often constrained by stigma, defined as a socially constructed process that associates certain health topics with shame, secrecy, and social judgment, limiting open dialogue and discouraging care-seeking. In some areas, uttering the word "breast" in public is forbidden or frowned upon. Additionally, very few studies conducted in Bangladesh have included the actual voices of marginalized rural women (Azim et al., 2025), underscoring the need for further exploration of how their lived experiences in rural settings impact their decision-making process.

At the same time, gaps in health communication contribute to limited health literacy. Many women are unaware that breast cancer can develop without symptoms and that screening is a preventive measure rather than a response to illness. Instead, knowledge is often shaped by informal sources such as community narratives, interpersonal communication, and emerging digital platforms, which may reinforce misconceptions. These socio-cultural and communication challenges can directly influence key determinants of behavioral intention, as women's feelings towards participating in breast cancer screening can be shaped by perceived risk and benefits of

preventative screening, often informed by incomplete or inaccurate information. Their idea of feeling supported/pressured by the family and the society to get screened can be influenced by family and societal expectations of women in that specific context and their position in the household, where decisions are frequently mediated by spouses or elders. Similarly, their perceived ability and confidence to seek preventative care can be constrained not only by logistical barriers but also by limited autonomy and restricted communication within households.

While existing research in Bangladesh has largely focused on awareness levels and structural barriers using quantitative approaches, there has been a limited exploration of how the context and communication norms in a society influence women's decision-making process. Therefore, to understand the lack of participation in preventative screening, this study extended beyond the physical miles to the clinic and explored how the sociocultural and health communicative factors influenced women's cognitive evaluation and shaped their intention and actual screening participation. Guided by the Theory of Planned Behavior (Ajzen, 1991), this study integrated these sociocultural and communicative factors to explain women's cognitive factors, like attitudes toward screening, subjective norms, and perceived behavioral control, which affected their intention to engage in breast cancer screening.

To explore this process, this study was developed around the following questions:

RQ1: How do individual, sociocultural, and systemic factors collectively shape rural Bangladeshi women's decisions to engage in preventative cancer screening?

RQ2. Based on their lived experiences, what community-informed strategies do these women suggest to overcome existing barriers and improve screening uptake?

Justification of the Study

With the rising prevalence of breast cancer in Bangladesh and a significant female population living in rural areas, establishing CBE centers locally or having access to other screening methods like mammograms is not enough to solve the crisis. Listening to the voices of the women themselves is needed to understand the true barriers that they are facing before deciding to participate in the screening and identify future pathways to address those barriers.

Attending breast cancer screenings is a behavioral decision that requires women to cognitively evaluate various external factors and barriers; however, very few studies have employed a behavioral communication theory to explore how women think about these barriers that they face in a specific context. Introducing the Theory of Planned Behavior allowed this study to explain the complexity of the human decision-making process while acknowledging the rigid, silenced reality of rural Bangladesh. Previous studies in other conservative socio-economic countries showed that rural women's attitudes, subjective norms, and perceived behavioral control heavily influenced their intention for breast cancer screening participation (Keshavarzi et al., 2022; Sun et al., 2022). Unfortunately, in Bangladesh, very few studies have focused on women's cognitive pathways in the decision-making process from a contextual and communication perspective. With a staggering <1% screening rate (Azim et al., 2025), this study tried to address that critical need by shedding light on those deep-rooted sociocultural and communicative factors that negatively influence women's feelings towards preventative screening, their lack of support from their family and society, and their limited control over their own health decisions, which all combinedly influenced their lack of participation.

Additionally, most prior breast cancer studies were cross-sectional, survey-based, and conducted primarily in hospitals or university settings. Surveys can easily capture that a woman

didn't go to a clinic because it was "too far" or "too expensive," but they fail to capture the fear of mentioning breast issues to a mother-in-law or the avoidance of breast health discussion with the husband because he won't understand, which were broadly discussed in this study validating the need for this deeper qualitative exploration that this study adopted.

Purpose of the Study

The purpose of this study was to examine how sociocultural and health communication factors influence rural Bangladeshi women's decision-making process of forming an intention to participate in preventive breast cancer screening.

To understand the process of forming the intention to participate, this study was guided by the Theory of Planned Behavior (Ajzen, 1991), that provided a framework to understand how rural women felt about participating in preventative breast cancer screening (Attitude), how they thought the people in their family and society would react to their decision to participate (Subjective Norms), and how capable and confident they felt to go for screening if they wanted to that (Perceived Behavioral Control). The theory is particularly relevant in this study because it accounts for both individual beliefs and social influences, which can also be shaped by external contextual and communication factors, all of which are central to decision-making in a conservative, collectivist, and patriarchal society like Bangladesh.

Since rural areas in Bangladesh share overall similar socio-cultural demographics, to achieve this purpose, this study employed a qualitative research design using semi-structured, in-depth interviews with 10 rural women from villages in Senbag Upazila, Bangladesh. While initially starting with purposive sampling, a snowball sampling method was used mostly to recruit participants, allowing access to women whose voices are often underrepresented in

research. The qualitative approach enabled an in-depth exploration of participants' lived experiences, focusing on how communication environments, cultural stigma, and social relationships influence their perceptions and decisions regarding breast cancer screening.

Significance of the Study

This study contributes to both theoretical and practical understanding of health behavior in low-resource, socioculturally restrictive settings. Theoretically, it extends the application of the Theory of Planned Behavior by integrating the sociocultural and health communication perspective, demonstrating how the existing societal norms and communication strategies shape attitudes, subjective norms, and perceived behavioral control. By focusing on rural Bangladeshi women, the study also highlights the limitations of applying behavioral theories without considering broader sociocultural and communicative contexts.

From a practical standpoint, the study provides insights into why breast cancer screening participation remains extremely low despite the availability of services. Rather than attributing nonparticipation solely to structural barriers, the findings emphasize the role of stigma, misinformation, and communication constraints in shaping behavior. These insights are valuable for policymakers, healthcare providers, and non-governmental organizations seeking to design culturally appropriate and communication-centered interventions to improve screening uptake.

In short, by centering the voices of rural women, this study contributes to a more inclusive understanding of health behavior, highlighting the importance of context-specific health communication strategies that address both informational and sociocultural barriers.

Organization of the Thesis

This thesis is organized into five chapters. Chapter 1 introduces the study, including the background, problem statement, justification, purpose, and significance of the study. Chapter 2 presents a comprehensive review of the literature, focusing on breast cancer screening, health communication, and theoretical frameworks relevant to understanding health behavior. Chapter 3 outlines the research methodology, including the study design, participant recruitment, data collection procedures, and analytical approach. Chapter 4 presents the findings derived from the qualitative analysis of participant interviews. Finally, Chapter 5 discusses the findings in relation to existing literature and theory, highlights practical implications, and offers recommendations for future research.

Chapter 2 - Literature Review

Overview of Breast Cancer and Screening Across the World

Screening is considered one of the key preventative measures, as early detection is important to reduce breast cancer-related mortality, giving patients more treatment options and a longer prognosis. While developed countries have appropriate methods of cancer screening, like mammography or MRI, facilitating early diagnosis and reduced mortality rates, low-income countries continue to struggle, facing a greater mortality rate. In the following sections, a detailed overview of the related literature is provided to understand global screening behavior, followed by an examination of trends in existing research on breast cancer and screening in Bangladesh, specifically highlighting the gaps regarding cultural stigma and communication.

Globally, High HDI (Human Development Index) countries like the US, Belgium, and Sweden, which have high dimensions of human development in areas like healthy life, knowledge, and a decent standard of living, employ various screening methods to ensure early diagnosis of breast cancer, leading to a significant decrease in mortality rates in those countries. On the other hand, most medium to low HDI countries (i.e., Colombia, Brazil, Mexico) struggle to establish proper screening access and face the risk of increasing disease burden and mortality rates. By 2050, new breast cancer cases and deaths will increase by 38% and 68%, respectively, disproportionately impacting medium to low-HDI countries, which illustrates the urgent need for increased awareness, early diagnosis, and access to treatment (Kim et al., 2025).

While Asia has a significant share of breast cancer statistically (Fu et al., 2025), the burden is not equally shared by all Asian countries. Developed and high-income Asian countries like Japan and Korea report a higher incidence attributed to their comprehensive breast cancer screening methods that enable early detection and higher survival rates. Conversely, low and

middle-income (LMICs) Asian countries face higher mortality rates linked to limited access to screening and treatment (Hong et al., 2021; Ohuchi et al., 2016). Additionally, factors such as reproductive patterns, breastfeeding durations, and dietary changes contribute to variations in incidence and mortality rates of breast cancer across Asia (Song et al., 2022).

Region-wise, in South Asia, most countries are low- and middle-income countries (LMICs), with a mortality-to-incidence ratio twice that of the East Asia and Pacific sub-region (Lim et al., 2022). These LMICs in South Asia face challenges due to limited resources and inadequate infrastructure (Amin et al., 2020; Gupta et al., 2015), resulting in insufficient cancer screening programs and, in turn, late diagnosis and poor survival rates (Fu et al., 2025).

Being one of the LMICs in South Asia with a high breast cancer prevalence, Bangladesh adopted clinical breast examination (CBE) as the primary screening method country-wide to facilitate screening accessibility for women in low-resource settings (Sarker et al., 2018). Though the effectiveness of CBE as a screening test is controversial, considering the limited resources, the World Health Organization (WHO) recommends CBE over mammography in LMICs (Ngan et al., 2020). However, this nationwide screening implementation has not confirmed the screening utilization among women. Studies found out that while most women knew about screening, the main reason for not participating was the lack of symptoms and inadequate knowledge about its function (Islam et al., 2016). This highlights a massive health communication failure: women simply do not know that asymptomatic screening is necessary. In terms of including rural women in their natural settings, a recent study conducted in a village in Jessore division examined rural women's attitudes and screening behaviors and found that a lack of awareness and education were key factors affecting rural women's screening participation, with as low as <1% participation (Azim et al., 2025).

The gaps between screening opportunity and screening utilization suggest that the problem is not only about access, but also about the wider communication environment that affects awareness and behavior in Bangladesh, which demands scholarly investigation to move beyond whether screening services are available towards how information about breast cancer or preventative cancer screening is shared, understood, and shaped by social and cultural influences. Health communication helps explain this by examining how people receive and respond to health information within their communities. Using this approach makes it easier to see how factors like stigma, cultural norms, informal sources of information, and limited official messaging influence women's choices about breast cancer screening, which is why the next section focuses on defining health communication and its role in preventive health behavior.

Health Communication

Definition of Health Communication

Health communication is a broad academic area that relies on targeted messaging to shape how people and communities make medical decisions. While scholars offer many different definitions, they all agree that sharing information is a primary method for improving public well-being. For instance, major organizations like the Centers for Disease Control and Prevention describe health communication as the careful study and application of messaging to guide choices that promote better health (CDC, 2001). Similarly, researchers explain it as a practical way to prevent disease by changing how people act, using specific techniques to create environments where human health can thrive (Freimuth, Linnan, & Potter, 2000; Maibach & Holtgrave, 1995). At its core, the main objective is to expand public knowledge, shift personal attitudes, and remove harmful habits to elevate the overall physical condition of the target audience (Muturi, 2005; CDC, 2011a).

Furthermore, modern experts point out that effective health messaging is much more than just handing out facts. It is actually a deeply interactive process focused on mutual understanding and shared meaning (Pearson & Nelson, 1991). This requires a balanced, two-way conversation where ideas are traded equally to create a foundation of shared knowledge and agreement (Exchange, 2005, as cited in Schiavo, 2013, p.9). Therefore, health communication tries to teach people about physical risks while also giving them the tools to fight off negative social pressures (Campbell & Scott, 2012). Finally, as highlighted in public health goals, this type of strategic messaging is critical for reaching health equity. It ensures that medical information is welcoming, inclusive, and easy to grasp for everyone, especially for marginalized groups who often lack access to these resources (Schiavo, 2013; U.S. Department of Health and Human Services, 2012b).

Applicability of Health Communication

The practical use of health communication extends across a wide variety of areas, such as public wellness, medical care delivery, and community development. For many years, government health departments, charitable organizations, and private businesses have successfully relied on targeted messaging campaigns to push forward important medical, corporate, and social objectives. This field is highly effective because it borrows foundational concepts from a diverse range of academic areas, including psychology, sociology, marketing, and the behavioral sciences (Bernhardt, 2004; Institute of Medicine, 2003b; Kreps, Query, & Bonaguro, 2007; World Health Organization [WHO], 2003). By combining these different perspectives, health communication becomes a primary driver for the types of personal, social, and organizational shifts that are absolutely necessary to improve public health results (Schiavo, 2013).

Furthermore, the real-world application of these strategies must always account for the broader environment where people actually live. A person's capacity to take up and maintain healthy habits is not just based on the medical facts they know. It is heavily influenced by structural realities, such as their financial situation, their community support networks, and their overall ability to easily access reliable information (Glanz et al., 2015; Schiavo, 2013). Because these outside forces are so powerful, any communication program must be built on a deep and thorough understanding of the specific people it aims to help. To be truly practical and effective, campaigns have to carefully map out the unique personal beliefs, cultural expectations, and everyday obstacles that the target audience faces.

Health Communication Strategies and Campaigns

To achieve the best possible results, health communication initiatives rely on a variety of overlapping methods. Leading global health groups, like the World Health Organization and the Centers for Disease Control and Prevention, strongly advise against relying on just a single method. Instead, they promote comprehensive strategies that combine multiple channels of communication. This approach includes using television and radio, encouraging personal conversations, organizing local community events, and utilizing professional medical networks to reach the public (Bernhardt, 2004; Schiavo, 2013; WHO, 2003). By blending these different techniques, campaigns become much stronger because they repeat the same healthy message across various parts of daily life and social settings (Wakefield et al., 2010). Experts broadly agree that one communication method is never powerful enough to change the habits of a large and diverse population.

Beyond just using multiple channels, creating a successful campaign requires a deep focus on the specific audience. Planners achieve this through a widely accepted practice known

as audience segmentation. This method involves taking a massive population and dividing it into much smaller groups based on shared characteristics, such as their age, local traditions, daily habits, and personal concerns (Schiavo, 2013). Once these smaller groups are clearly defined, health professionals can design targeted messages that directly speak to those unique needs. The designers of these campaigns must carefully weigh the social and cultural realities that shape how a community receives and understands new information. If a program ignores these local details and tries to use a generic message for everyone, it will almost certainly fail to improve public knowledge or change any physical behaviors (Schiavo, 2013).

Role of Health Communication in Breast Cancer Prevention

Health communication is not a neutral conduit for transmitting clinical information. It is a purposeful, theoretically grounded practice that shapes how individuals understand risk, evaluate options, and decide whether to engage in protective health behaviors such as breast cancer screening. Kreps and Sivaram (2008) argue that strategic health communication campaigns that use multiple channels can effectively disseminate information about breast health risks to vulnerable populations and encourage the adoption of health-promoting behaviors. However, they emphasize that such campaigns must be designed using persuasive strategies grounded in local social, cultural, and economic contexts. This highlights an important principle in breast cancer communication literature, that communication is most effective when it is contextually tailored rather than universally standardized (Kreps & Sivaram, 2008).

The intent-to-action gap and the role of communication

A persistent challenge in breast cancer communication is the gap between intention and action. Knowledge and positive attitudes toward screening do not always translate into actual participation. This issue is well recognized in the Theory of Planned Behavior and is equally

relevant in communication research. Effective health communication must therefore go beyond raising awareness and shaping attitudes. It must also address the practical and structural barriers that prevent women from accessing screening services. Kreps and Sivaram (2008) note that communication strategies should span the entire continuum of care, from early detection and diagnosis to treatment and survivorship. A breakdown in communication at any stage can interrupt the pathway from intention to behavior. As a result, communication must address not only why women should be screened, but also how, where, and under what conditions they can act.

Cultural tailoring and targeting

The literature consistently supports the importance of culturally tailored communication in promoting breast cancer screening. Culturally tailored messages are designed to reflect the beliefs, values, barriers, and social norms of specific populations rather than relying on generalized messaging. Evidence shows that messages aligned with cultural values are more effective in influencing behavior, and that matching communication to a group's cultural identity can be an efficient strategy for audience segmentation in cancer communication (Huang & Shen, 2016). Cultural tailoring is particularly important in breast cancer communication because the breast carries different symbolic meanings across contexts, including associations with femininity, sexuality, motherhood, and modesty. These meanings influence how screening messages are interpreted and whether they are accepted or resisted.

Interpersonal communication and patient navigation

Interpersonal communication plays a critical role in promoting breast cancer screening. Communication between patients and healthcare providers, as well as interactions within community networks, can strongly influence decision-making. Research on patient navigation in

breast cancer care shows that building trust and maintaining patient-centered communication are among the most impactful aspects of the navigator relationship, as recognized by patients, navigators, and administrators (Gallups et al., 2023). Community health workers and lay navigators, who are often trusted members of the community, are especially effective in bridging gaps between health systems and underserved populations. They provide information, support, and encouragement, helping women navigate screening services. This approach is particularly valuable in contexts where institutional mistrust, language barriers, or geographic isolation limit access to care. Interpersonal communication in these settings reinforces social influence and normative pressures, which are key mechanisms in shaping behavior (Gallups et al., 2023; Krok-Schoen et al., 2016).

Multi-channel communication strategies

Effective breast cancer communication strategies typically rely on multiple communication channels rather than a single approach. Social media and health literacy campaigns have shown promise in encouraging women to seek screening services, particularly among populations with digital access. At the same time, traditional channels such as radio and interpersonal communication remain essential for reaching economically disadvantaged groups who may have limited access to digital platforms. The effectiveness of any communication strategy depends on how well it aligns with the target population's media use, literacy levels, and social environment (Plescia & White, 2013).

Bangladesh and Breast Cancer Communication

Bangladesh presents a particularly instructive case of the gap between the availability of breast cancer screening infrastructure and the uptake of preventive screening. To address the growing burden of breast cancer in low-resource settings, Bangladesh adopted Clinical Breast

Examination as the primary national screening method, to improve screening accessibility for women, particularly those living in rural communities (Sarker et al., 2018). To support this effort, the national government established more than five hundred screening centers across the country by 2020; however, the effectiveness of these programs has rarely been systematically evaluated (Chowdhury et al., 2024). Despite this investment in physical infrastructure, screening participation remains extremely low, with national rates around one percent and recent rural estimates below one percent due to unreliable services and limited public awareness (Azim et al., 2025).

While distance and cost remain important barriers, the limited uptake of screening also reflects a deeper breakdown in health communication shaped by cultural stigma, gender norms, and limited preventive health literacy. In South Asian contexts, femininity is often socially constructed around emotional caregiving, physical modesty, and silence, reinforcing expectations that women should avoid open discussion of their bodies and reproductive health concerns (Aurat Foundation & USAID, 2016, as cited in Agha, 2019). Because the breast is closely connected to womanhood, motherhood, sexuality, and modesty, breast cancer may be experienced not only as a medical threat but also as a threat to feminine identity and social respectability. These meanings contribute to a culture of silence in which women may avoid discussing breast symptoms, seeking screening, or consulting healthcare providers due to fear of embarrassment, stigma, and social rejection (Noman et al., 2020).

The silence around the female body

One of the most significant barriers is the cultural silence surrounding women's bodies. Discussions about breast health are often constrained by stigma, modesty norms, and social discomfort, creating an environment where even well-designed health messages struggle to gain

legitimacy (The Business Standard, 2025; Aarsal, 2025). In this context, breast cancer is not perceived solely as a medical issue but as a culturally sensitive topic tied to identity, femininity, and social expectations (Hamid & Roy, 2025).

Gender inequality and decision-making autonomy

Gender inequality further complicates this communication environment. Women's limited autonomy in healthcare decision-making means that screening is not simply an individual choice but a negotiation within household power structures. Evidence from national survey data shows that only a small proportion of women can independently make decisions about their healthcare, requiring approval from male family members (Kundu et al., 2024). Qualitative research also highlights the role of family support, resource control, and stigma in shaping women's ability to seek screening (Steiness et al., 2018).

Stigma and Cultural Taboos

Stigma and cultural taboos remain central barriers to effective communication. Modesty norms, fear of social judgment, and reluctance to discuss breast-related issues discourage both information seeking and healthcare utilization. These patterns are reinforced by misconceptions about cancer and limited open communication within families and communities, often beginning early in life (Alam et al., 2026; Steiness et al., 2018).

The symptom-only paradigm

Another critical issue is the persistence of a symptom-based understanding of screening. Many women believe that breast examinations are only necessary when symptoms are present, reflecting a fundamental misunderstanding of preventive care (Amin et al., 2024). Many women assume that breast examination is necessary only when pain, lumps, or other symptoms appear. Islam et al. (2016) found that even when women were aware of screening, many had never

undergone breast examination because they did not perceive screening as necessary in the absence of symptoms. This perception significantly reduces the perceived relevance of screening messages for healthy individuals and limits the reach of preventive communication.

Urban-rural and educational inequities in reach

Urban-rural and educational disparities further exacerbate communication challenges. Awareness of screening practices is significantly higher among urban women, while rural women face limited access to both healthcare services and reliable information (Hoq et al., 2024). Research consistently identifies fear, shyness, lack of knowledge, and weak awareness programs as major barriers, pointing to failures in both message design and communication reach (Amin et al., 2020).

Informal communication networks also play a dominant role in shaping health perceptions. Even as internet access expands, interpersonal discussions within families and communities remain the primary source of information. These networks often spread misinformation, fear, and fatalistic beliefs, further discouraging screening behavior (Islam et al., 2016; Noman et al., 2020).

Introducing Health Communication Factors in BC Screening

Communication plays a central role in shaping behavioral intentions and influencing whether those intentions translate into action. The development of effective interventions requires increasing social support, fostering community engagement, and making it easier for individuals to adopt and sustain new health behaviors. As discussed in the previous section, to understand the underutilization of breast cancer screening in Bangladesh, it is necessary to examine key communication factors that influence women's decision-making and how communication can improve them. Existing research has largely relied on quantitative methods

to measure knowledge, awareness, and perceived barriers (Alam et al., 2021; Amin et al., 2020). While these studies identify important trends, they often fail to capture the deeper cultural meanings and communication dynamics that shape behavior. This study, therefore, adopted a qualitative approach to explore these processes in greater depth.

Health communication literature emphasizes several core determinants of behavior, including knowledge, perceptions, attitudes, and social norms. These factors influence how individuals interpret health information and make decisions. Understanding audience characteristics, including beliefs, perceived barriers, and cultural expectations, is essential for designing effective communication strategies (Schiavo, 2013).

Communication channels also play a critical role in determining access to information and its credibility. While interpersonal communication and traditional media have historically shaped public knowledge, social media and digital platforms are increasingly influential. Media exposure can reinforce or challenge existing beliefs, significantly shaping health perceptions and behaviors (Wakefield et al., 2010). Understanding how women navigate both formal and informal communication channels is therefore essential.

Finally, structural factors such as access to healthcare services and communication infrastructure influence whether individuals can act on the information they receive. Examining variables such as knowledge, perceived risk, perceived benefits, attitudes, cultural norms, societal norms, and communication channels provides a comprehensive framework for understanding health behavior. These factors are widely recognized in health communication and behavior change research and form the foundation for this study's analysis of breast cancer screening intentions among rural women in Bangladesh.

What can culturally grounded communication offer?

The limitations of existing communication approaches highlight the need for culturally grounded strategies. Experimental work in Bangladesh demonstrates the potential of such approaches. For example, Raisa et al. (2023) developed a culturally embedded “pot song” intervention based on traditional folk art to promote breast health awareness. This approach shows that effective communication in this context requires deep engagement with local beliefs, values, and communication practices. It also underscores the limitations of applying Western communication models without adaptation, particularly in settings where assumptions about individual autonomy and open discussion do not hold (Raisa et al., 2023).

In summary, breast cancer communication in Bangladesh has been limited not because women are unwilling to protect their health, but because the communication environment is shaped by stigma, gender inequality, cultural silence, and structural inequities. Addressing these barriers requires moving beyond information dissemination toward culturally responsive, context-specific communication strategies that engage social systems, leverage appropriate communication channels, and support access to screening services.

Theoretical Framework

Existing Theories Used in Health Communication Research for Preventive Cancer Screening

Understanding why individuals participate in preventive cancer screening requires theoretical frameworks that can explain the psychological, social, and structural factors shaping behavior. Over time, health behavior research has drawn on a range of theoretical models to explain screening participation. Model-based meta-analytic research shows that at least fourteen theories have been applied in the cancer screening domain, with the Health Belief Model being

the most frequently used, followed by the Theory of Reasoned Action and its extension, the Theory of Planned Behavior (Feng et al., 2021).

This section reviews three widely used frameworks in cancer screening communication research: the Health Belief Model, the Transtheoretical Model, and Social Cognitive Theory. It then introduces the Theory of Planned Behavior as the utilized framework for this study.

The Health Belief Model (HBM)

The Health Belief Model is widely regarded as one of the foundational theories in cancer screening research. It consists of six primary constructs: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy, and cues to action (Alyafei & Easton-Carr, 2024). Originally developed in the 1950s in response to low participation in a free tuberculosis screening program, the model has since been applied to a wide range of preventive health behaviors.

The HBM suggests that individuals are more likely to take preventive action when they believe they are personally at risk of a serious health condition, perceive benefits in taking action, and face minimal barriers to doing so (Feng et al., 2021). In breast cancer screening research, the model has been widely applied to examine how women's perceptions of susceptibility, severity, benefits, and barriers influence their attitudes, intentions, and behaviors related to breast self-examination and mammography (Alamer, 2024). Its strength lies in its focus on threat perception, particularly how understanding personal risk can motivate preventive behavior. Both the HBM and the Theory of Planned Behavior have shown positive explanatory value for mammography screening participation (Ritchie et al., 2021).

Despite its widespread use, the HBM has several limitations. It focuses primarily on individual cognition and does not adequately account for social norms, peer influence, or

structural constraints. This is particularly problematic in collectivist and resource-constrained settings, where screening decisions are often shaped by family expectations, gender roles, and access limitations. The model also lacks a clear mechanism linking attitudes to behavioral intention, leaving a gap between cognitive perception and actual behavior. Comparative research in South India found that screening intention was better explained by the Theory of Planned Behavior than the HBM, highlighting the importance of incorporating social and contextual factors (Dsouza et al., 2022).

The Transtheoretical Model (TTM)

The Transtheoretical Model offers a different perspective by conceptualizing behavior change as a process that occurs over time. Rather than viewing behavior as a single decision, the model identifies five stages of change: precontemplation, contemplation, preparation, action, and maintenance (Trauth et al., 2023). This framework allows researchers to assess an individual's readiness to engage in screening and to design stage-specific communication strategies.

In the context of cancer screening, the TTM highlights the importance of tailoring communication to a woman's stage of readiness. For example, individuals in the precontemplation stage may require awareness-building interventions, while those in the contemplation stage may benefit from information that helps them evaluate the benefits and barriers of screening. A review of TTM applications found that stage-based interventions are particularly effective for mammography, although evidence for other types of cancer screening remains limited (Spencer et al., 2005).

A central concept within the TTM is decisional balance, which refers to how individuals weigh the advantages and disadvantages of a behavior. Research on Chinese American women found that screening behavior was strongly associated with decisional balance, suggesting that

communication strategies should address both perceived benefits and concerns (Strong & Liang, 2009). However, the model has been criticized for assuming a linear progression through stages and for lacking sensitivity to external constraints such as cost, access, or social approval, which can limit behavior regardless of readiness stage.

Social Cognitive Theory (SCT)

Social Cognitive Theory, developed by Bandura (1997), introduces self-efficacy as a central determinant of health behavior. Self-efficacy refers to an individual's confidence in their ability to perform a behavior and overcome obstacles. In the context of breast cancer screening, this includes a woman's confidence in accessing services, navigating healthcare systems, and managing emotional and social barriers.

SCT emphasizes that behavior is influenced not only by personal beliefs but also by social and environmental factors. Observational learning is a key component, suggesting that individuals are more likely to adopt behaviors when they observe others doing so. In breast cancer screening, this means that seeing peers or community members participate in screening can increase motivation and reduce uncertainty.

SCT has often been used in combination with other frameworks, particularly the Health Belief Model and the Theory of Planned Behavior. For example, research in Malaysia found that perceived benefits and knowledge, informed by HBM and SCT constructs, were among the strongest predictors of screening intention (Chin et al., 2019). The concept of self-efficacy in SCT closely aligns with perceived behavioral control in TPB, making it a useful complementary framework.

However, SCT has limitations similar to the HBM. While it incorporates environmental influences, it still focuses largely on individual-level processes and does not fully account for broader structural and cultural factors such as gender norms, social expectations, and power dynamics (Burke et al., 2009).

The Theory of Planned Behavior

Overview

Participating in breast cancer screening is a behavioral aspect, and understanding rural women's intention to participate in the context of Bangladesh benefits greatly from the Theory of Planned Behavior (TPB). This is a widely used and validated theory, especially in the health context, for predicting or changing health behaviors, i.e., cancer screening practices, as well as identifying unique barriers and facilitators (Sun et al., 2022).

TPB is a modification of Ajzen and Fishbein's Theory of Reasoned Action (TRA), which has three main constructs that include attitudes, subjective norms, and perceived behavioral control (PBC). This theory posits behavior as a planned action driven by a person's evaluation of the behavior (attitude), perceived social support/pressure regarding that behavior (subjective norms), and the person's ability to engage in that behavior (perceived behavioral control) (Ajzen, 1991). The uniqueness of TPB lies in its ability to be adjusted to suit various cultural contexts, which is crucial in Bangladesh's diverse and complex socio-cultural landscape.

TPB in BC Research

The Theory of Planned Behavior has been widely used in understanding cancer screening intentions, ranging from cervical cancer to breast cancer among women from diverse demographics (Roncancio et al., 2013; Tolma et al., 2006). While other behavioral theories discussed previously are also extensively used to predict behavioral intentions, studies that used

both found that TPB had a more significant predictive power in cancer screening behaviors than HBM (Wang et al., 2019). The Theory of Planned Behavior has been widely used in breast cancer screening research across diverse geographical contexts, including Asia, the Middle East, and Western countries. It has been applied to multiple screening behaviors such as mammography, breast self-examination, and clinical breast examination. Location-wise, TPB plays out differently in forming screening intentions. For women in the US and UK, attitude significantly affects the intention, while subjective norm and PBC have a low to medium effect on intention for cancer screening, pointing to the minimal effect of normative pressure on women in these contexts when they consider preventative screening (Cooke & French, 2008). Whereas, in a rigid socio-cultural structure and low economic context like rural areas in Asia, subjective norms and perceived behavioral control significantly influence rural women's intention to participate in breast cancer screening (Keshavarzi et al., 2022; Sun et al., 2022).

Regardless, its continued use reflects its ability to incorporate five constructs (Attitudes, Subjective Norms, Perceived Behavioral Control, Intention, and Actual Behavior) to reflect the decision-making process from both individual and social dimensions, making it especially useful for studying preventive health behaviors in culturally diverse populations (An & Vincent, 2022).

Attitudes

Attitude plays a central role within this framework, reflecting how individuals evaluate the behavior. Research has shown that positive attitudes toward screening are associated with a higher likelihood of participation. Studies in Iran have demonstrated that educational interventions based on the Theory of Planned Behavior can significantly improve attitudes toward screening and increase participation (Kamyab et al., 2024). At the same time, research has also identified a gap between positive attitudes and actual behavior, indicating that favorable

perceptions alone are not sufficient to ensure screening uptake (Khani Jeihooni et al., 2023). Studies conducted in China similarly show that negative attitudes toward health check-ups can reduce screening participation, while positive attitudes are strongly associated with intention (Sun et al., 2022; Li & Li, 2021). Longitudinal research in Nepal suggests that attitudes may remain stable over time following interventions, highlighting their importance as a durable component of behavior change (Dhakal et al., 2023).

Subjective Norms

This construct captures the influence of social pressure on behavior. Evidence shows that family members, healthcare providers, and peers play a critical role in shaping screening decisions. In studies conducted in China, perceived social expectations have been identified as a key driver of screening intention among both women and healthcare providers (Sun et al., 2022; Zhao et al., 2025). Healthcare professionals are often among the most trusted sources of information, and their recommendations can significantly increase screening participation (Khani Jeihooni et al., 2023). Social influence from family and friends also contributes to shaping attitudes and intentions. However, research suggests that the effect of subjective norms may weaken over time without continued reinforcement, highlighting the importance of sustained communication strategies (Dhakal et al., 2023).

Perceived Behavioral Control

This reflects an individual's perception of how easy or difficult it is to perform the behavior. This includes both internal factors such as confidence and knowledge, and external factors, such as access to services, time constraints, and social barriers. Research in China has shown that both logistical challenges and cultural factors, including discomfort with male healthcare providers, can influence perceived control (Sun et al., 2022). Studies in Nepal highlight the extent to which

structural barriers can limit women's ability to access screening, even when attitudes are positive (Dhakal et al., 2023). Research involving healthcare providers also demonstrates the importance of perceived control, showing that factors such as time constraints and resource availability influence their ability to support screening decisions (Légaré et al., 2015; Khani Jeihooni et al., 2023).

Intention

This represents the motivational component of the framework and reflects an individual's readiness to act. It is widely recognized as the most immediate predictor of behavior. Research consistently shows that stronger intention is associated with a higher likelihood of screening participation (Khani Jeihooni et al., 2023). However, the gap between intention and behavior remains a key challenge, as many individuals who intend to screen do not follow through due to structural or contextual barriers (Kebede et al., 2023). Studies across different countries, including Korea and Malaysia, demonstrate that intention is shaped by attitudes, social norms, and perceived control, reinforcing the interconnected nature of these constructs (Chin & Mansori, 2019; Kim et al., 2010; Son et al., 2009).

Behavior

Finally, behavior refers to the actual performance of screening, such as attending a clinical examination or undergoing mammography. Research confirms that intention is a strong predictor of behavior, but it is not the only factor. Demographic characteristics, prior health experiences, and access to healthcare services also influence whether individuals act on their intentions (Griva et al., 2013). Intervention studies have shown that programs based on the Theory of Planned Behavior can improve both intention and actual screening behavior, demonstrating the practical value of the framework (Kamyab et al., 2024; Zheng et al., 2024). Variation in screening

practices across populations further highlights the importance of contextual factors such as cultural norms, healthcare access, and education in shaping behavior (Keddebe et al., 2023).

Why does TPB fit in this study?

The selection of a theoretical framework must be guided by both conceptual relevance and empirical support. For research examining breast cancer screening behavior, particularly in socially and culturally complex contexts such as Bangladesh, the Theory of Planned Behavior offers a comprehensive and practical framework. It brings together individual beliefs, social influences, and perceived control in a way that aligns closely with how screening decisions are actually made in real-world settings.

Its strengths are compared to other behavioral models

One of the key strengths of the Theory of Planned Behavior is its ability to address a limitation found in earlier models. The Health Belief Model and stage-based approaches largely frame health behavior as the result of individual cognition, focusing on personal perceptions of risk and benefits. This perspective does not fully capture the social nature of decision-making, particularly in collectivist or patriarchal societies. The Theory of Planned Behavior extends this perspective by explicitly incorporating subjective norms, recognizing that individuals are influenced not only by their own attitudes but also by their perception of social expectations. In many contexts, including Bangladesh, decisions about screening are shaped by family members, community expectations, and healthcare providers, making the inclusion of social influence essential for understanding behavior (Nickerson, 2023).

Empirical research supports the strength of this framework. The Theory of Planned Behavior has consistently demonstrated strong predictive value for health-related behaviors, including cancer screening. Its structure allows it to capture multiple dimensions of decision-

making, including how individuals evaluate a behavior, how they perceive social expectations, and how capable they feel of performing the behavior. Compared to earlier models, it provides a more complete understanding of the factors that influence screening participation.

Subjective norms are especially critical in Asian and South Asian contexts

The role of subjective norms is particularly important in Asian and South Asian contexts. Studies conducted among rural Chinese women have shown that perceived social expectations can be the most influential factor in shaping screening intention, even more than individual attitudes or perceived control (Sun et al., 2022). Similar patterns have been observed across other Asian contexts, where family influence, community expectations, and social obligations play a central role in health decision-making. These findings highlight the importance of using a framework that can capture social pressures and collective influences, rather than relying solely on individual-level explanations.

The TPB accounts for barriers to action, not just barriers to intention

Another key advantage of the Theory of Planned Behavior is its ability to address the gap between intention and action. Many women may express positive attitudes toward screening but still fail to participate due to practical or structural barriers. The concept of perceived behavioral control captures both internal confidence and external constraints, including access to services, time, cost, and social discomfort. This makes the framework particularly relevant in low-resource settings, where barriers such as distance, financial limitations, fear, and lack of access to female healthcare providers can prevent women from acting on their intentions (Kamyab et al., 2024).

The TPB's constructs are modifiable and intervention-friendly

An additional strength of the framework is that its core components are modifiable. Attitudes can be influenced through persuasive communication, subjective norms can be shaped by engaging social networks and trusted community figures, and perceived behavioral control can be improved by reducing structural barriers and increasing access to services. Because of this, the Theory of Planned Behavior is not only useful for explaining behavior but also for designing effective interventions. It has been widely applied across different health contexts, including studies involving both patients and healthcare providers, demonstrating its flexibility and practical relevance (Zhao et al., 2025)

Meta-analytic evidence supports the TPB's predictive validity for cancer screening

The framework is also supported by a strong body of empirical evidence. Research across different types of cancer screening has shown that the Theory of Planned Behavior can effectively predict both intention and actual behavior (Cooke & French, 2008). Studies focusing specifically on breast cancer screening have similarly found that the framework provides strong explanatory value, particularly in understanding screening intention (Ritchie et al., 2021). This consistent evidence base strengthens the justification for using the Theory of Planned Behavior as the primary framework for this study.

Limitations and how the research addresses them

Despite its strengths, the Theory of Planned Behavior is not without limitations. Some studies have suggested that subjective norms may be less influential in certain contexts, particularly in individualistic societies, and that the model may not fully capture factors such as habits, emotions, or past experiences. Other critiques highlight the need for further research to evaluate its practical effectiveness in promoting screening behaviors in real-world settings (An &

Vincent, 2022). These limitations are important but also provide an opportunity for further investigation. By applying the Theory of Planned Behavior within the specific socio-cultural context of Bangladesh, where social influence and structural constraints are particularly strong, this study contributes to the ongoing evaluation of the model's applicability across different settings.

Research Gap

The existing literature on breast cancer screening in Bangladesh highlights several important gaps. First, most studies rely on quantitative approaches that measure levels of knowledge, awareness, and perceived barriers but do not capture the lived experiences of rural women or the sociocultural contexts in which screening decisions are made. As a result, the everyday realities, meanings, and communication dynamics that shape women's health behavior remain underexplored.

Second, there is limited attention to the role of health communication in shaping knowledge, attitudes, and behavior. While previous research identifies factors such as lack of awareness, fear, and embarrassment, it often treats these as isolated variables rather than outcomes of broader communication environments characterized by stigma, silence, and limited access to reliable information.

Third, few studies in the Bangladeshi context have applied theoretical frameworks that integrate both individual-level cognition and social influence. Although models such as the Health Belief Model have been widely used, they do not fully account for the role of social norms, communication constraints, and perceived control in shaping behavior, particularly in collectivist and patriarchal settings.

This study addresses these gaps by adopting a qualitative, communication-centered approach to examine how sociocultural and communication factors shape breast cancer screening intentions among rural women. By integrating the Theory of Planned Behavior with a health communication perspective, the study moves beyond individual-level explanations to provide a more comprehensive understanding of how attitudes, social norms, and perceived control are formed and negotiated within specific cultural and communicative contexts.

Conceptual Framework: Integrating TPB with a Sociocultural and Communication Lens

Building on the Theory of Planned Behavior, this study conceptualizes health communication as a broader contextual layer that influences and shapes the core constructs of the model. Specifically, sociocultural and communicative factors such as cultural stigma, the culture of silence surrounding women's bodies, limited formal health messaging, and women's health beliefs are treated as overarching influences that interact with and reinforce attitudes, subjective norms, and perceived behavioral control. Rather than functioning as separate variables, these communication factors shape how each construct is experienced and interpreted in the local context.

Within this framework, the traditional constructs of the Theory of Planned Behavior are operationalized as follows:

Attitude (evaluation of the behavior)

Attitude reflects a woman's overall evaluation of breast cancer screening. In this context, however, such evaluations are shaped by limited access to accurate health information and the absence of preventive health messaging. When women are not informed that breast cancer can be asymptomatic, their understanding is often shaped by informal narratives, including fear-based

community stories. As a result, preventive screening may be perceived as unnecessary or associated with fear and uncertainty.

Subjective norms (perceived social pressure)

Subjective norms refer to the perceived expectations of significant others regarding screening behavior. In rural Bangladeshi settings, these norms are strongly influenced by cultural taboos surrounding the female body. The association of breast-related discussions with shame and modesty creates a social environment in which seeking breast care may be viewed as inappropriate. Consequently, normative pressures may discourage women from discussing or pursuing screening.

Perceived behavioral control (ability to act)

Perceived behavioral control reflects a woman's perceived ability to access and participate in screening. In this context, control is shaped not only by structural barriers such as cost and distance but also by communication constraints within households. When women feel unable to communicate their health needs to family members or cannot negotiate financial and logistical support, their perceived and actual capacity to engage in screening is reduced.

Chapter Summary & Research Questions

As demonstrated in the preceding review, while global screening practices have significantly reduced breast cancer mortality in developed nations, LMICs like Bangladesh continue to struggle with late-stage diagnosis. The existing literature heavily relies on quantitative methods and hospital-based surveys to identify logistical barriers, generalized “lack of awareness”, or individual embarrassment as the primary reasons for extremely low screening participation. However, this surface-level diagnosis is insufficient for capturing the lived realities

of rural Bangladeshi women. The literature consistently fails to explore the deeply entrenched sociocultural and communicative factors that might influence women's cognitive evaluation of a health behavior, which in turn affects actual behavior.

By integrating health communication-centered factors with the Theory of Planned Behavior, this study sought to move beyond simply identifying that barriers exist and instead investigate how rural Bangladeshi women's structural, communicative environment, and cultural experiences actively construct negative attitudes, unsupportive norms, and a lack of behavioral control. To fill these critical gaps in the literature and explore how rural Bangladeshi women form their screening intentions within this highly restrictive context that can lead to future culturally appropriate strategies, the following research questions guided this study:

RQ1: How do individual, sociocultural, and systemic factors collectively shape rural Bangladeshi women's decisions to engage in preventative cancer screening?

RQ2: Based on their lived experiences, what community-informed strategies do these women suggest to overcome existing barriers and improve screening uptake?

Chapter 3 - Methodology

Qualitative Approach

This study employed a qualitative approach using semi-structured in-depth interviews to explore the sociocultural and communicative factors influencing rural women's decisions about breast cancer screening in Bangladesh. A qualitative design was appropriate because screening decisions are complex and shaped by multiple interacting factors that cannot be fully captured through surveys or numerical measures (Lau et al., 2022). Women's health behaviors are influenced by sociocultural expectations, including norms that prioritize their roles as daughters, wives, and mothers over their own health, as well as concerns about modesty, privacy, and cultural taboos surrounding the female body. In Bangladesh and similar South Asian contexts, barriers to screening operate across multiple levels, including individual, family, community, healthcare system, and broader societal structures. These include stigma, reluctance to communicate, financial concerns, and limited support systems, all of which are deeply embedded in everyday social interactions.

In addition, modesty norms and concerns about interacting with male healthcare providers can lead to discomfort, mistrust, and avoidance of screening, particularly in Muslim communities. Women's decisions are also shaped by family dynamics, as husbands and male relatives often influence or control access to healthcare, making screening a relational rather than purely individual decision. These layered and context-specific dynamics require a method that allows women to express their experiences, concerns, and decision-making processes in their own words.

Semi-structured in-depth interviews were therefore selected as the primary data collection method, as they provide flexibility to explore participants' perspectives, allow for probing of sensitive topics, and enable the emergence of unanticipated themes. This approach is particularly suitable for studying stigmatized issues such as breast cancer, where open and conversational formats can help build trust and encourage candid discussion. Given that previous research in Bangladesh has been largely quantitative and hospital-based, there is a clear need for contextually grounded qualitative research. This study responds to that need by centering the voices of rural women to better understand the barriers to screening and to inform culturally appropriate health communication strategies.

Ethical Consideration

Following approval from the Institutional Review Board (#IRB 13462), participant recruitment was initiated by a local female contact. All protocols were strictly adhered to protect participant confidentiality and ensure data privacy, reflecting a strong commitment to ethical standards. Participation was entirely voluntary, and individuals were informed about the purpose of the study prior to providing verbal consent, as approved by the IRB. Participants were free to decline or withdraw at any time without penalty or loss of benefits. Interviews lasted approximately 60 to 90 minutes, and this time commitment was communicated in advance. Although participants received a small incentive of \$4, they were not informed of this beforehand; it was provided afterward as a token of appreciation for their time and contribution, funded solely by the primary researcher. The study was classified as minimal risk, meaning that any potential risks were no greater than those encountered in everyday life.

Research Design

This study was exploratory in nature, utilizing semi-structured in-depth interviews to understand the decision-making process of rural women as they thought about participating in available preventative breast cancer screening. The target population of this study was women living in the villages under Senbag Upazila, and a local female contact initiated participant recruitment. The initial sampling was purposive, which later transformed into snowball sampling. The interviews were conducted via WhatsApp video call, which was recorded with an audio device, transcribed and translated before analyzing the data thematically to identify findings.

Sampling Strategy and Sample Size

Purposive sampling, which quickly evolved into snowball sampling, was used to recruit 10 women for interviews. The sample was limited to the Senbag Upazila in Chattogram Division, Bangladesh. Rather than focusing on data saturation, this study was guided by the concept of information power to ensure the generation of trustworthy findings. Given the context-specific nature of the research, which focused exclusively on rural women, a relatively small sample was deemed appropriate, as participants provided rich, in-depth responses to the research questions (Malterud et al., 2016). Furthermore, the use of in-depth interviews supports the adequacy of a smaller sample size; as noted by McCracken (1988), a sample of approximately eight participants can be sufficient for a qualitative research study.

The initial purposive recruitment was facilitated by a local female contact, who identified and recruited the first participant following a brief eligibility screening. This screening consisted of two criteria: participants were required to report awareness of breast cancer screening and no

prior participation in such screening. Upon meeting these criteria, the first participant was recruited and provided with the primary researcher's WhatsApp contact information.

Following the initial interview, recruitment progressed organically through a snowball sampling process. The first participant, along with subsequent participants who completed the interview within their home settings, began voluntarily sharing information about the study with neighbors and female relatives. As a result of this informal community-based dissemination, further involvement from the local contact was not required. Interested individuals were provided with the researcher's WhatsApp number and contacted the researcher independently.

Participants were then recruited based on their willingness to participate in a 60–90-minute in-depth interview. This process continued until a final sample of ten participants was reached.

Inclusion Criteria

Only women aged 18 and above were recruited for the study. Eligibility was restricted to participants who were aware of clinical breast examination (CBE) or other breast cancer screening methods but had never undergone any form of screening. This criterion was essential for exploring women's decision-making processes regarding non-participation in preventive screening despite prior awareness about screening.

In addition, participants were required to have access to a stable internet connection and a private space within their home to facilitate a 60–90-minute in-depth interview without interruption.

Exclusion Criteria

Women aged under 18 were excluded from the study. In addition, women who had previously undergone any form of breast cancer screening, as well as those with no awareness of

breast cancer screening methods, were not eligible for recruitment. Excluding participants without prior awareness was essential, as the formation of intention to engage in a health behavior requires at least a basic level of knowledge or awareness of that behavior. This criterion enabled the study to more effectively examine decision-making processes among women who were aware of screening but had not acted upon that knowledge.

Participants' Profile

This section provides a brief demographic overview of the ten women who participated in this study. To humanize the data and support interpretation, each participant has been assigned a culturally appropriate pseudonym. Information on their age, living arrangements, educational background, and daily responsibilities offers important context for understanding their healthcare-related decision-making.

Table 1

Demographic Characteristics of Participants

Participant	Age	Marital Status	Children	Education	Occupation	Family Structure
Maria	24	Married	2	SSC	Housewife	Nuclear (4 members)
Amena	23	Married	2	HSC	Housewife	Joint (7 members)
Shila	29	Married	4	HSC	Housewife	Joint (11 members)
Munni	29	Married	2	Bachelor's degree	Housewife	Joint (7 members)
Anowara	53	Widowed	3	Master's degree	High school teacher	Nuclear
Sonali	44	Widowed	0	Master's degree	High school teacher	Joint
Taslima	30	Married	2	HSC	Housewife	Joint (11 members)
Rupa	24	Divorced	0	Bachelor's degree	Kindergarten teacher	Joint (6 members)
Kohinoor	42	Widowed	3	HSC (some college)	Housewife	Nuclear

Mitali	22 Married	1 HSC	Housewife	Joint (6 members)
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Note. SSC = Secondary School Certificate (equivalent to U.S. 10th grade); HSC = Higher Secondary School Certificate (equivalent to U.S. high school diploma). All participant names are pseudonyms.

Overall, these profiles indicate that, regardless of educational attainment, most women in these rural contexts bear primary responsibility for household management and caregiving. This shared reality significantly shapes their autonomy and capacity to seek healthcare.

Data Collection

The interviews were conducted in the Bengali language by the primary researcher via WhatsApp video call. Given the cultural sensitivity surrounding breast health in Bangladesh and the nuanced, context-dependent barriers experienced by rural women, in-depth interviews were considered the most appropriate method for data collection. This method provided a flexible, interactive setting in which participants could gradually build comfort as they discussed sensitive issues. It also enabled the primary researcher to probe responses, seek clarification, and capture rich, detailed accounts of lived experiences that would be difficult to obtain through more structured data-collection methods.

WhatsApp was selected as the interview platform due to its widespread use and accessibility in Bangladesh, as well as participants' familiarity with the application. This platform also allowed participants to take part in the interview from the comfort of their homes, since they already knew and used the application. To facilitate participation from the comfort of their homes, participants were provided with the researcher's WhatsApp contact number and initiated the video calls using their own mobile devices. The researcher conducted interviews via laptop and recorded the sessions as audio using a personal mobile phone.

All participants completed the interviews from the privacy of their own homes, scheduling calls at times convenient to them and using their own internet connections. This approach enabled participants to remain in a familiar, secure environment, supporting open discussion of sensitive topics while eliminating the logistical and financial burden of travel.

At the beginning of each interview, the researcher explained the purpose of the study and the interview procedure to ensure participants fully understood their involvement and could provide informed consent. Participants were informed that the interviews would be audio-recorded, that they could withdraw at any time without penalty, and that they could decline to answer any questions they found uncomfortable. Given that all interviews were conducted virtually and that the participant population included individuals with varying levels of education, verbal informed consent was obtained before proceeding and recording the interview in accordance with Institutional Review Board approval.

Following consent, interviews were audio-recorded using the researcher's personal mobile phone, positioned near the laptop. All recordings were stored exclusively on the researcher's password-protected device, which the researcher accessed, thereby ensuring data security and confidentiality.

Interview Protocol

An interview protocol was developed to answer research questions, informed by TPB constructs and other factors such as beliefs, information sources, knowledge, and communication barriers, to better understand the decision-making process. At the beginning of the interview, all participants were asked to answer demographic questions about age, gender, marital status, children (if any), and professional status. The questions from interview protocol are below:

1. Demographic and Everyday Life: Questions related to marital status, children, education, family size, and daily routine and workload.
2. General Health and Care Seeking: Questions related to women's general health concerns and care-seeking behavior
3. Women's Health and Breast Health: Questions related to how women's health or breast health is talked about in the community. Women's knowledge about breast cancer and symptoms. Their personal and family experiences related to breast cancer.
4. Awareness, Information Sources, and Preferences: Questions related to breast cancer screening methods/procedures. Health information sources that women use for their health or breast health, and the trust and comfort they have in those sources.
5. Attitudes Toward Breast Cancer Screening: Questions related to women's feelings towards breast cancer screening participation. Perceived usefulness of breast cancer screening. Their knowledge and feelings about the procedure itself, and their preference about male/female health care worker and the effect it might have on their screening intention.
6. Social Support, Norms, and Communication: Questions related to women's perceived social support about participating in breast cancer screening, including support from loved ones, family members, and the community. Women's comfort level about talking about breast health concerns, or cancer screening thoughts, with people in their family and community.
7. Perceived Capability, Barriers, and Reasons for Nonparticipation: Questions related to women's confidence in participating in breast cancer screening on their own. Factors that might boost or decrease that confidence. The main reasons that have caused them not to

participate in breast cancer screening to date are. The barriers they might face if they attempt to go for screening.

8. Recommendations and Future Intentions: Women's ideas about practical steps that might improve screening participation among rural women. Women's intention to participate in breast cancer screening in the near future

Data Analysis

This study utilized Thematic Analysis (TA), as outlined by Braun and Clarke (2006, 2013), to analyze the interview data. Thematic Analysis is one of the most widely used approaches in qualitative research and is characterized as a flexible yet systematic method for identifying, analyzing, and reporting patterns of meaning within data. It is an iterative process of sense-making that involves moving back and forth between the dataset and emerging interpretations rather than following a strictly linear procedure. Braun and Clarke describe this process as consisting of six interconnected phases, which guide the organization and interpretation of qualitative data from initial familiarization through to the development and refinement of final themes.

Phases in reflexive thematic analysis

1. Familiarization: First, I organized the translated data into text units, accumulating all responses from participants under specific interview questions. Following Agar's (1980) advice, the primary researcher first "immersed" in the details by reading the transcripts in their entirety several times. This helped the researcher to get a sense of the interviews before breaking them into smaller parts.
2. Coding: During the reading phase, the researcher wrote "memos"—short phrases, ideas, or key concepts- directly on the transcripts to identify major organizing ideas.

- The researcher then began formal coding by aggregating text segments that shared common meanings using two types of labels: vivo codes, which used the exact words of the participants, and author-composed labels that best described the information.
3. Generation of initial themes: After the coding was complete, the researcher began classifying the codes into broad units of information, or themes, according to the research questions/theoretical constructs. This way, two major themes were generated deductively to explain the research questions of this study. Each theme consisted of several codes/subthemes, aggregated to either directly answer the research question or illustrate a common idea that emerged from the data.
 4. Reviewing themes: The researcher then reviewed the themes and subthemes against the original Bengali and English data to ensure they accurately reflected the participants' stories.
 5. Refining and defining the themes: This phase involved refining themes built upon a strong core concept or essence and giving them names. The researcher identified two general themes that addressed the research questions, ensuring they captured the specific socio-cultural and communicative realities of rural Bangladesh.
 6. Writing-up: Finally, this phase involved creating a coherent story to meet the study's objectives. As a final step, the data was interpreted in the discussion section. This interpretation was offered in light of relevant literature and the researcher's own contextual knowledge,

Translation Process

After conducting and recording all interviews, the primary researcher manually transcribed them in Bengali. The transcripts were then translated into English using an AI-

assisted tool (NotebookLM). To ensure accuracy, the researcher conducted a detailed, line-by-line verification of the translated text against both the original Bengali transcripts and the audio recordings. This process ensured that participants' meanings, tone, and narrative voice were preserved.

The translation process was treated as a critical methodological step. As a native Bengali speaker familiar with the study context, the researcher acted as both translator and quality controller, ensuring that cultural nuances and context-specific meanings were accurately conveyed. In cases where Bengali terms, particularly those related to culturally embedded concepts such as shame or modesty, lacked direct English equivalents, the closest possible phrasing was used. This limitation is acknowledged as a structural constraint of the study.

The use of AI-assisted translation was primarily driven by practical considerations. Given the large volume of interview data and the absence of external funding, employing a professional human translator was not financially feasible. However, regardless of the translation method, manual verification by the researcher would have remained necessary to ensure contextual and linguistic accuracy. NotebookLM was also selected for its privacy features, which allowed the researcher to disable data retention and ensure that sensitive interview data was not stored or used beyond the scope of the study.

The use of AI tools for transcription and translation is increasingly recognized in qualitative research. Marshall and Naff (2024) suggest that while researchers are generally comfortable using AI for procedural tasks such as translation, analytical processes still require human interpretation. Accordingly, in this study, AI was used solely for translation, while all coding and thematic analysis were conducted manually to maintain interpretive rigor.

Data Validation and Trustworthiness

In qualitative research, data validation is crucial to ensure the trustworthiness and transferability of the data. In this study, validation required careful consideration as the data were collected in a language other than English, and there was only one primary researcher responsible for both data collection and analysis. Therefore, several data validation strategies were implemented throughout the study:

Rich, Thick Description

To ensure the transferability of the findings, a detailed description of the participants and the study setting was provided. This allows readers to contextualize the data and determine whether findings can be applied to other environments "because of shared characteristics" (Erlandson et al., 1993, p. 32). The findings described comprehensive participant profiles, detailing their household structures, educational backgrounds, and daily domestic burdens. Furthermore, direct, translated quotes from the participants were heavily embedded throughout the thematic analysis. Relying on the participants' exact phrasing minimizes interpretation biases (Asmussen & Creswell, 1995) and provides the reader with a transparent, authentic view of the rural Bangladeshi woman's experience.

As the primary researcher was the sole author transcribing and analyzing the data, maintaining the "trustworthiness" of the findings was a top priority. Therefore, the researcher ensured the rigor of the study analysis through several key strategies:

The Audit Trail

The primary researcher maintained a complete "audit trail," which is a step-by-step record of the research process. This includes the original Bengali audio, the manual transcriptions, the initial "memos" and codes created on the paper, and the documents showing

how those codes were grouped into the final themes. This trail provides a transparent view of how the data were used to reach the conclusion of this study.

Reflexivity

The primary researcher is an insider to the community under study, having grown up in the same rural environment of Senbag Upazila where the participants reside, and in some cases, having prior personal familiarity with participants. This positionality significantly shaped both the recruitment process and the interpretation of data.

This shared background functioned as a key strength of the study. It facilitated rapid rapport and trust-building, as participants perceived the primary researcher as someone who understood their lived realities. This was particularly important given the sensitivity and cultural taboo surrounding discussions of women's bodies, reproductive health, and family dynamics. As a result, participants were often more open in sharing experiences they might otherwise have withheld from an external researcher.

However, this insider position also introduced methodological risks, particularly the possibility of "assumed shared meaning," where culturally familiar expressions such as "village norms" or "family pressure" could be interpreted without adequate clarification. There was also the risk that the primary researcher's prior experiences in the same community could shape interpretation of participants' narratives.

To address these risks, reflexivity was continuously maintained throughout data collection and analysis. A reflexive journal was kept documenting the primary researcher's emotional responses, assumptions, and personal reflections after each interview. This process supported ongoing awareness of potential bias and helped separate participants' accounts from the primary researcher's lived experience.

In addition, structured strategies were used during interviews to ensure interpretive accuracy. The primary researcher deliberately avoided assuming shared understanding and consistently used probing questions to elicit clarification when participants referred to culturally embedded concepts such as “village norms” or “family pressure.” For example, when a participant described broader household and community dynamics as reasons for not undergoing screening, the primary researcher asked a clarifying question to confirm whether the main barrier was the need for permission from her husband and in-laws. The participant confirmed this interpretation. This iterative clarification process ensured that participants’ intended meanings were accurately captured rather than inferred.

Overall, the primary researcher maintained a reflexive stance throughout the study, balancing insider familiarity with a deliberate effort to remain analytically cautious. This included adopting a learner-oriented posture during interviews, prioritizing participants’ explanations over assumed knowledge, and ensuring that interpretations were consistently grounded in participants’ own words and meanings.

It is also important to note that although the primary researcher grew up in the study area, she has not been residing there since 2013. This temporal distance may have helped provide some degree of analytical detachment, particularly in relation to evolving socio-cultural dynamics and potential differences in lived experiences between the researcher and participants.

At the same time, this distance also required the primary researcher to remain attentive to avoiding assumptions about continuity in local practices, ensuring that participants’ accounts were interpreted in light of their current lived realities rather than past personal experiences.

Chapter 4 - Findings

This chapter presents the findings from interviews with ten women living in rural areas of Bangladesh. The purpose of these interviews was to explore how these women perceive their health and healthcare-seeking behaviors, what they know about breast cancer and screening, and the communicative, cultural, and societal barriers that shape their participation in preventative breast cancer screening. Through in-depth conversations, the interviews captured lived experiences of daily responsibilities, family expectations, a culture of silence surrounding women's bodies, and perceptions of the healthcare system.

As discussed in Chapter 3, participants came from diverse educational backgrounds, ranging from secondary school certificates to master's degrees. Some lived in nuclear families, while lived in large joint households with up to 11 members. While a few participants worked outside the home as teachers, the majority were housewives who carried primary responsibility for household management and childcare.

Grounded in the core constructs of the Theory of Planned Behavior (TPB), this chapter addresses RQ1 by unpacking the individual, sociocultural, and systemic factors that collectively shape screening decisions through four sequential themes; the factors shaping women's attitudes towards preventative screening, the influence of family and society's expectations on subjective norms, the emotional and logistical barriers affecting women's perceived control, and the key factors influencing future intention to participate. Finally, transitioning from theoretical diagnosis to practical application, the chapter directly answers RQ2 through two targeted themes exploring participants' community-informed strategies for interventions: first, by examining how to destigmatize breast health through proactive, interpersonal communication, and second, by

detailing the need to reduce psychological and logistical barriers through accessible health resources.

Analytically, these themes show that within the Theory of Planned Behavior, attitude, subjective norms, and perceived behavioral control do not operate independently. Instead, they are deeply shaped by a broader communicative environment that reinforces a culture of silence, which constrains women's ability to even consider screening as a viable option.

RQ1: How do individual, sociocultural, and systemic factors collectively shape rural Bangladeshi women's decisions to engage in preventative screening?

Attitude Is Influenced by Silence Around Women's Bodies, Knowledge about BC Symptoms and Screening

This theme explains how women's attitudes toward preventive screening are shaped not only by their awareness of breast cancer symptoms and screening but also by the strong social silence surrounding female health issues. Although many women express a generally positive view of preventive screening, their willingness to participate differs significantly due to cultural taboos around women's health and the perception that undergoing screening may compromise "modesty," particularly when male health workers are involved.

From an early age, women are socialized to conceal normal aspects of their bodies, including menstruation, followed later by pregnancy-related changes, and eventually breast-related concerns. This is not a single or isolated experience but a cumulative process of learned silence. Over time, this repeated expectation to hide bodily experiences normalizes non-disclosure of health concerns, as women seek to avoid gossip, judgement, and social ridicule. By

the time preventive screening becomes relevant, many women have developed a habitual pattern of concealment. This makes the idea of “showing the body” during screening feel like a violation of lifelong norms of modesty, which in turn negatively shapes their attitude toward screening participation.

Hiding Normal Female Health Issues

In rural Bangladesh, there is a strong cultural expectation that women remain silent about their bodies. The interviews show that long before a woman considers serious conditions such as breast cancer, she is taught to conceal normal bodily experiences. Every day, female health issues are often kept private and are associated with shame.

This sense of shame begins with routine health needs. One participant, a full-time housewife and mother of two, described how difficult it is to talk about even basic bodily functions.

In the village, people feel a lot of hesitation when it comes to talking about women's health. People in the village don't even want to talk normally about periods, nor do they want to go to a shop to buy sanitary pads. And they absolutely do not want to talk about breasts at all (Munni, 29).

This quote is significant as it illustrates the foundation of the issue within rural Bangladeshi culture. If purchasing a simple sanitary pad is already considered shameful and something that must be hidden from an early age, then discussing breast health or seeking a preventive breast cancer check-up becomes even more difficult for women.

As women grow older, this expectation of concealment extends to other life events. Women are often expected to hide even natural processes such as pregnancy, sometimes even

from their own parents. Maria (24), a mother of two, described the emotional strain of this experience: “During my pregnancy, I felt ashamed to even sit in front of my father. If my pregnancy bump was even slightly visible, people would say harsh and hurtful things.” The response to a visible pregnancy highlights how deeply embedded social rules are around women’s bodies in the community.

As a result, women learn to prioritize appearing “modest” and maintaining family comfort by avoiding visibility of bodily changes over their own sense of bodily safety. If a woman is made to feel ashamed of her pregnancy in front of her own family, she is effectively taught that her body can become a source of social judgment. For women like Maria, exposing the breast to a health worker, even for a potentially life-saving screening, therefore feels like a violation of a lifelong expectation of concealment. In this sense, the discomfort associated with screening is not only about the procedure itself, but also about breaking deeply ingrained patterns of silence and secrecy surrounding the female body.

The Cultural Taboo of Breast Health

As basic reproductive health is already heavily concealed, the topic of breast health is almost entirely off-limits in rural Bangladesh communities. The data show that breasts are predominantly viewed as private and sexualized body parts, rather than as normal parts of human anatomy that may require medical attention. This strong taboo makes discussions about breast health and cancer screening feel nearly impossible in everyday life.

Almost all participants made it clear that conversations about breasts simply do not take place in normal social settings. Because the community does not openly or seriously engage with the topic, women who experience symptoms such as pain or lumps often find themselves with nowhere to seek support. Instead of reassurance, responses within the community are often

dismissive or mocking. As Maria (24) explained: “If someone does have a breast-related issue, people often laugh about it or don’t take it seriously.” This fear of ridicule leads women to suppress concerns and remain silent about potential symptoms.

The silence surrounding breast health means that the concept of preventive screening is largely absent from community understanding. If the word “breast” itself cannot be spoken without shame, then discussing medical testing for it becomes even more difficult. Maria (24) further summarized this reality: “Generally, no one in the village understands what screening is, so it isn’t a topic of conversation.” This demonstrates that the absence of screening is deeply rooted in a cultural environment that enforces silence and shame around women’s bodies, prioritizing modesty and avoidance of discussion over proactive health-seeking behavior.

The idea of “Modesty”

The “lifetime of hiding” also directly shapes how women feel about the actual process of screening. The idea of exposing “private parts” to a stranger causes significant emotional discomfort, which lowers women’s attitudes towards the screening procedure. While all participants recognize the benefits of preventive screening and agree that women should be screened, and many also express support for other women who choose to do so, their personal attitudes towards the procedure itself are strongly influenced by deeply internalized ideas of modesty.

Maria (24) expressed this clearly: “The idea of screening makes me feel very shy and embarrassed... the thought of a male worker being present makes me feel extremely uncomfortable. It is very embarrassing.” For many women, the presence of a male healthcare worker becomes a “deal-breaker.”

This highlights how protecting modesty is often prioritized over seeking medical care. This is not because women do not value their health, but because the cumulative experience of concealment over many years makes physical exposure feel like a moral violation of what it means to be a “modest” woman. As Taslima (30) noted, “Village women feel shy, and if they are married, the village people will say even nastier things if they attend such examinations for breasts.”

Most participants also emphasized a strong need to avoid exposing their bodies to male healthcare providers, even in clinical settings. Cultural expectations around modesty, therefore, create a significant barrier within the context of breast cancer screening. For the vast majority of women interviewed, the idea of a male doctor performing a breast examination is entirely unacceptable.

The fear of male healthcare providers looking at or touching their bodies generates intense anxiety. Mitali (22) stated: “Many girls do not want to get their breasts examined, thinking that a doctor will look at or touch their breasts.” For some women, this is not simply a preference but a firm boundary that leads them to withdraw from necessary medical care. Shila (29) shared another example of this decision in practice: “It is extremely important to me that the health worker is a woman because I don’t want to show my private body parts to just anyone.”

For most participants, the presence of a female healthcare worker is an essential requirement for considering breast screening at all. Women emphasized the need to feel protected from shame and judgment. Maria (24) noted: “If the health worker is a woman, it isn’t as bad, but the thought of a male worker being present makes me feel extremely uncomfortable. It is very embarrassing.” Similarly, Amena (23) stated: “For breast screening, I would want only a female doctor or a female health worker to be present.” Overall, most rural women expect

healthcare services to accommodate these cultural boundaries, and without female providers, many indicated they would simply refuse to participate in screening.

Misconceptions about breast cancer symptoms and risk factors

Participants demonstrated some awareness of breast cancer symptoms, which are primarily related to pain, lumps, and lesions, often acquired through social media or interpersonal communication. However, severe misconceptions emerged regarding its causes. Narratives shared by neighbors and relatives contributed to deeply rooted misunderstandings. These accounts fostered a specific and distressing belief among many young married women that pregnancy and breastfeeding are direct causes of breast cancer.

Breastfeeding is commonly associated with physiological changes, including breast tenderness and discomfort. However, some participants interpreted normal breastfeeding-related pain or breast changes as potential indicators of cancer, particularly when they had observed others being diagnosed during similar life stages. Maria (24) described an experience that shaped her perception and fear: “I heard from a paternal aunt of mine that she was experiencing pain in her breast. She went to the doctor, and they found a tumor, which eventually turned into cancer.”

As such narratives circulate rapidly within communities, particularly in rural settings, they appear to heighten anxiety among young mothers. Amena (23) expressed a similar belief, stating: “As far as I think, cancer symptoms can appear during pregnancy and breastfeeding.” These perceptions were further reinforced by experiences of illness and death among relatives as one participant recounted:

My cousin, who died used to have pain in her nipples after having her baby. Then she went to the doctor, got screened, and found out she was suffering from breast cancer.

After that, her breast had to be removed, and she died within a year (Taslina, 30)

Similarly, another participant, Maria (24), while talking about her experience with a relative noticing symptoms during breastfeeding, added: “She underwent breast screening after the pain started, which is how it was detected, and she is currently undergoing treatment.”

Overall, many participants’ accounts of breast cancer within their families or social circles involved cases in which symptoms were first noticed during pregnancy or breastfeeding and subsequently led to diagnosis. This temporal association contributed to the belief that childbirth or breastfeeding can trigger the disease. Another misconception identified concerned breast asymmetry. Amina (23) noted that she had read on Google that uneven breast size appears smaller or larger than the other, may be abnormal, and indicative of breast cancer.

These misconceptions about breast cancer symptoms may discourage women from seeking preventive screening, particularly when no noticeable abnormalities are experienced during pregnancy or breastfeeding, or when they do not perceive breast asymmetry.

Lack of knowledge about the screening process

An important finding from the interviews is that while all participants were aware of the severity and potentially fatal nature of breast cancer, they lacked knowledge regarding how to access screening services and how the screening process is conducted. Screening was commonly understood only in terms of mammography; some participants were aware of breast self-examination (BSE), but none had heard of clinical breast examination (CBE). As Kohinoor (42) said, “As far as I know about breast cancer screening, there is a machine, and it has to be done using that. I saw this on TV, but I don't have a complete idea of what the process is like.”

Although such accounts reflect close and direct exposure to the disease and healthcare system, participants still reported a lack of understanding of what actually occurs during breast cancer screening. Munni (29) stated, “I have no idea what happens during a breast cancer screening or how it is done. But I do know screening should be done if any symptoms appear. I saw this on social media as well.” Similarly, Maria (24), whose aunt had been diagnosed with breast cancer, explained, “I am aware that you have to see a doctor for screening, but I don’t know exactly what happens during the procedure step by step.”

These accounts suggest that even when women observe family members undergoing diagnosis and treatment, this exposure alone is insufficient to build procedural knowledge about screening, particularly when explicit explanations are not provided or discussed within families or communities. This lack of awareness about screening procedures also influenced participants’ willingness to undergo screening. Some participants noted that once they became aware that screening is not an invasive or frightening procedure, their fear decreased, and they expressed willingness to seek screening in the future.

Intention to participate in preventative screening is shaped by family, social expectations, and communication constraints

This theme explores the role of subjective norms in shaping women’s intentions to participate in preventive cancer screening, with particular attention to the influence of significant others, family members, and broader social expectations.

Lack of perceived support from the husbands

A major challenge for rural women, particularly married housewives, is the perceived lack of support from husbands for preventive healthcare. Participants commonly reported that while husbands tend to be supportive when there are severe or clearly symptomatic health issues

and would encourage seeking medical care, they are unlikely to support requests for preventive cancer screening in the absence of symptoms.

Participants explained this lack of support from two main perspectives. First, they suggested that husbands are less responsive to preventive healthcare needs when women are asymptomatic. In such cases, screening may be perceived as unnecessary, potentially leading to what is viewed as a waste of money and time without a guaranteed outcome. Maria (24) highlighted this reality: “He wouldn't support the idea of me going for a screening unless there was a clear, physical problem or symptom.” Similarly, Mitali (22), despite her strong family history of breast cancer, described a lack of acceptance from her husband: “It is hard to make my husband understand because he thinks that just because my mother had breast cancer, it doesn't mean I will have it too.”

Second, participants reported difficulties communicating the importance of preventive screening to their husbands, particularly because husbands themselves had limited awareness and perceived a lack of patience or time to engage in such discussions. As a result, conversations about preventive health are often avoided. Amena (23) explained: “I don't normally talk about these things with my husband because he is usually busy, and taking the time to explain it all to him is very time-consuming.”

Pressure to maintain the image of a “healthy” bride

An additional and notable finding from the interviews is that women do not anticipate support from female members within their in-laws' household and may, in some cases, experience hostility. This indicates that barriers to healthcare-seeking are not solely shaped by male authority but are also reinforced by women who actively participate in maintaining norms of silence around health issues.

In rural Bangladesh, it is common for women to enter a joint family household after marriage, living with their father-in-law, mother-in-law, sisters-in-law, and brothers-in-law. Within this setting, female in-laws often become sources of judgment rather than support, where a bride is frequently evaluated based on her ability to work and remain “uncomplicated.” Disclosing health concerns, particularly those related to sensitive issues such as breast health, may be interpreted as a sign of being “weak” or “unsuitable” for the household.

Shila (29) described how health-related concerns are often met with hostility in her in-laws’ household: “In the village, if married women are heard to have health problems, they have to hear harsh words at their in-laws’ house; for this reason too, women do not talk about their own health problems.” This expectation to appear as a “suitable” and “silent” bride creates an environment in which illness and healthcare-seeking behaviors are suppressed to avoid judgment. Maria (24) further emphasized that this enforcement of silence can be overt and mocking: “The elders tease you if they hear about any ‘womanly’ physical problems; even other women laugh and mock you.”

This form of “moral policing” reinforces expectations that brides remain silent and compliant within the household, which in turn discourages women from disclosing health concerns. As a result, speaking about breast-related issues is perceived not only as embarrassing but also as a violation of familial expectations, potentially leading to reduced support for seeking preventive screening.

Due to this fear of ridicule, married women carefully select whom they confide in regarding health matters. Most participants reported avoiding discussions of female health within their in-laws’ households. As one participant explained:

If I wanted to talk about breast health or screening, I would feel much more comfortable sharing those thoughts with my mother or my sister than with my husband. I would not feel comfortable at all discussing this with anyone at my in-laws' house (Maria, 24)

On the same note, another woman, who lives in a large household, added:

I can talk openly about breast health with the people from my father's house [my maiden family], but at my in-laws' house, I only talk to my '*chachato nanod*' [husband's female cousin]. Other than that, I wouldn't voluntarily bring these things up with the rest of them (Taslina, 30)

These accounts illustrate how marriage can disrupt women's access to supportive and trusted communication networks. After marriage, women often find themselves in environments where they feel constrained and unable to freely express health concerns. As Maria (24) observed: "In Bangladesh, women face many hurdles regarding their health after marriage; they often hear stinging remarks and criticism at their in-laws' house." This restrictive social environment, combined with cultural taboos surrounding breast health, contributes to reduced perceived support for breast cancer screening decisions.

Fear of societal judgment

Given the prevailing cultural taboos surrounding female-specific health issues, particularly those related to the breast, participants expressed a strong belief that they would not receive social support if they sought preventive screening. Discussions about breast health were described as highly restricted, and because such topics are rarely addressed openly, participants felt that any engagement with breast cancer screening would likely be met with negative social reactions.

Participants reported that, within their communities, breast-related health issues are closely associated with notions of modesty and cultural taboo. As a result, women anticipated that those who did not interpret screening through this lens might still respond with ridicule, gossip, or derogatory remarks toward women seeking breast healthcare. This perception of anticipated judgment reinforces reluctance to engage in preventive screening.

Anowara (53) illustrated the extent of this social sensitivity through an example from her village: “For example, a 21-year-old neighbor girl of ours had breast cancer and had to have one breast removed, but no one in her family ever even utters the name of the disease.” This account reflects not only fear of external gossip and stigma but also the extent to which families may avoid openly acknowledging breast cancer diagnoses due to concerns about how they will be perceived within society.

Overall, these findings indicate that anticipated societal judgment and stigma surrounding breast health contribute significantly to women’s reluctance to seek preventive breast cancer screening.

Perceived behavioral control is limited by relational and logistical barriers

This theme explores the emotional and practical constraints that shape women’s perceived control over seeking preventive breast cancer screening. These include limited financial independence, restricted mobility, lack of transport options, and reliance on under-resourced local healthcare facilities.

Limited autonomy and mobility among married women

A key barrier to breast cancer screening identified by participants is restricted physical mobility. In rural contexts, it is generally considered neither socially acceptable nor morally appropriate for married women to travel long distances alone. As a result, women often depend

on their husbands or other accompanying persons to reach screening facilities. When such support is unavailable or withheld, access to screening becomes severely constrained.

Most participants reported that they are either not permitted to visit healthcare facilities alone or do not feel confident doing so independently. Amena (23) stated: “If I want to get a cancer screening right now... I do not have the confidence to go get screened by myself; I would absolutely need someone to go with me.”

Although husbands may, in some cases, grant permission for travel, the continued expectation of accompaniment remains a structural barrier to screening uptake. Even when permission is granted, the unavailability of an escort, combined with social expectations discouraging women from travelling alone, can prevent access to services. One woman described this constraint as limiting her screening intention:

The only reason I haven’t gotten a breast cancer screening done yet is that there is no one to take me to the screening center. I want to get a breast screening done, but I would have to travel to a faraway city to do it, and someone needs to take me, which is why I haven’t been able to do it yet (Taslina, 30)

This account is particularly significant as it highlights that willingness to undergo screening exists among participants; however, structural and normative constraints within rural settings inhibit action. Notably, older women above the age of fifty also reported needing an escort, although they attributed this primarily to age-related physical vulnerability rather than social norms governing women’s mobility.

Working women feel more confident

A distinction emerged between working women and housewives regarding social norms and perceived behavioral control. Working women reported greater confidence in their ability to access breast cancer screening compared to housewives.

Participants who were employed indicated that they would receive full support from their families if they chose to undergo screening, and that they would not require permission from others to do so. However, it is important to note that the working women in this study were primarily widowed or divorced. As such, the normative barrier of requiring a husband's permission was not applicable in their cases, which may partially explain their greater perceived autonomy. One woman, who was widowed and working as a school teacher, explained this full control over their health clearly:

If I decide to get screened tomorrow, I know that I will be able to do it because I have the money, I can go alone, and I can manage accommodation wherever I go. That is why I am confident that I can do it (Sonali, 44).

In addition to social support, working women also reported greater perceived ability to access screening services. Because they engage in paid work outside the home, they reported reduced domestic workload and fewer constraints on time management and financial dependence. These factors collectively contributed to a stronger sense of control over healthcare decisions compared to housewives.

Burden of household responsibilities

Even when married women obtain their husbands' permission, they continue to face a significant constraint: limited available time. The interviews clearly indicate that, in rural

settings, women are expected to manage household responsibilities and child-rearing regardless of their educational background or paid employment.

The substantial daily workload leaves women with minimal opportunity to prioritize their own health needs. Because their time is largely devoted to caring for children and other family members, attending personal healthcare becomes difficult. One woman, a mother of two children, described how these manifest in her daily life:

“I have to dedicate a lot of time to the children. Even though I have been facing many health issues since getting married and having kids, like hair fall and allergies, which make me feel bad, I just don’t get the time to go to the doctor (Amena, 23)

If women are unable to seek care for ongoing non-urgent health concerns such as allergies, the prospect of finding time for preventive cancer screening in the absence of symptoms becomes even more challenging.

In addition, screening is perceived as time-consuming and requiring advance planning. Women must organize household responsibilities in their absence and arrange alternative childcare before attending appointments. Kohinoor (42) noted: “Since this whole thing is time-consuming, I have to manage everything in advance before I leave.” Similarly, Taslima (30) highlighted this challenge: “If I want to get screened now, first I have to figure out who my children will stay with. And I will need permission from my husband and mother-in-law because I am a married woman.”

These accounts demonstrate that childcare responsibilities and domestic workload constitute substantial practical barriers that limit women’s perceived ability to engage in preventive breast cancer screening.

Lack of knowledge about where to go

Although participants were generally aware of mammography as a form of screening, they lacked specific knowledge about where breast cancer screening services are available.

Women indicated that they understood screening is typically accessed in larger, distant cities, as local availability is perceived to be absent. However, none of the participants could identify the exact facilities or locations where screening is conducted in these urban centers

Some participants explained that accessing screening would require first identifying an appropriate clinic in the city, often through informal inquiries with local contacts once they arrive. This reliance on situational guidance reflects uncertainty in navigating the healthcare system and a lack of clear referral pathways.

Participants also reported limited knowledge regarding how to initiate a screening appointment. Some suggested that they might first consult a nearby gynecologist to obtain information or a referral, who would then direct them to the appropriate facility. Anowara (53) broadly reflected this uncertainty around the process: “I just need to find a good health complex and schedule the visit on a weekend a little in advance.”

Under-Resourced Local Health Infrastructure

In addition to childcare and logistical constraints such as travel arrangements, participants identified inadequate local healthcare infrastructure as a significant barrier to screening uptake. Although every upazila (sub-district) in Bangladesh has a government-funded health complex, participants noted that these facilities generally lack breast cancer screening services.

Beyond the absence of equipment and services, participants also expressed limited trust in local healthcare provision. Several indicated that rural clinics are perceived as lacking both

appropriate diagnostic equipment and sufficiently qualified medical personnel to conduct or interpret breast cancer screening. Maria (24) summarized this perception, stating: “In villages, we lack good doctors and healthcare is often neglected.”

As a result, participants felt compelled to travel to larger cities to access screening services. This requirement increases both financial cost and physical burden, thereby reducing accessibility and weakening confidence in their ability to complete screening. These findings suggest that women’s intentions to participate in breast cancer screening are strongly shaped by structural deficiencies within the rural healthcare system.

Intention for future screening is shaped by perceived risk, benefits, and decision-making power, and female healthcare workers

This theme explores the key motivators and inhibitors that ultimately shape women’s intentions to participate in future breast cancer screening. It identifies four central factors influencing these intentions: perceived risk, perceived benefits, spousal decision-making power, and the perceived requirement for a female healthcare provider during screening procedures.

Perceived Risk

One of the most striking findings is that even women who have witnessed close family members die from breast cancer do not necessarily seek screening for themselves. Although participants were aware of the severity and fatal nature of the disease, this knowledge did not translate into perceived personal vulnerability. Breast cancer was often understood as something that happens to “others,” rather than a condition that could affect them personally, particularly in the absence of symptoms.

The youngest participant, who is also a mother of one child, provides a powerful illustration of this disconnect. Her mother died from breast cancer that was diagnosed late due to a lack of pain. Despite this experience and medical advice for follow-up screening, she has not undergone screening herself. She explained:

I know a little bit about breast cancer because my mother had it in 2014... As far as I recall, my mother had a lump in her breast, but there was no pain. At first, we all thought it would just go away. Later, when it wasn't getting better, my mother went to a doctor... and cancer was diagnosed... the doctor who treated her told my sister and me to get checkups... but I haven't done it yet (Mitali, 22)

A major reason for low screening uptake among rural women appears to be this limited perception of personal risk. Within these communities, healthcare-seeking is typically associated with the presence of illness or pain. The idea of attending a health facility for screening in the absence of symptoms is therefore not commonly perceived as necessary. Preventive screening is not widely understood as a health behavior, as medical attention is generally sought only when symptoms interfere with daily functioning or caregiving responsibilities.

Participants further linked this perception to broader sociocultural norms around healthcare use in Bangladesh. Maria (24) noted that preventive care does not align with common health-seeking behavior: “In Bangladesh, it is not considered ‘normal’ to go to a doctor unless you are already facing a visible problem.” In this context, the absence of pain, discharge, or palpable lumps is interpreted as reassurance of good health. Consequently, women often believe that screening is unnecessary unless symptoms are present. Sonali (44), a highly educated teacher, summarized this logic: “The reason for not getting a breast screening up until now is that

I did not have any symptoms or signs. So, I didn't think about it much as it didn't seem very necessary.”

This low perceived risk is also reinforced by gaps in knowledge regarding the benefits of preventive screening. Participants suggested that there is limited awareness that breast cancer can develop without early symptoms and that early detection can significantly improve outcomes. As a result, many women delay seeking care until symptoms become severe, at which point the disease may already be advanced.

However, some accounts suggest that knowledge alone does not necessarily translate into perceived risk or action. Several participants acknowledged awareness of breast cancer risks but still prioritized in the absence of symptoms. One woman, who's also a highly educated schoolteacher, reflected this contradiction:

There is actually no particular reason behind not getting a breast screening done so far. I just neglected it out of carelessness since I don't have any symptoms, even though I know about its risks and know some people who have died from it (Anowara, 53).

Despite this, several responses at the end of interviews indicated that perceived risk could become a motivating factor and could dictate the actual behavior when properly realized. For example, Amena (23) stated: “Now that I know that breast cancer can happen even without symptoms, I will definitely get screened in the next 2–3 years.”

Perceived Benefits

For a small number of participants, perceived benefits of medical care played a more dominant role in shaping intentions, positively influencing their willingness to undergo preventive breast cancer screening. These women emphasized that screening offers reassurance

and peace of mind, as it reduces uncertainty about potential asymptomatic disease progression within the breast. For them, the possibility of undetected cancer growth made screening a desirable and necessary preventive action, and they expressed clear intentions to participate in the future.

Taslina (30) highlighted this perspective, stating: “Whether the health worker during the screening is a woman or a man is not an issue for me... saving a life is farz [an absolute religious/moral duty for Muslim people].”

Several participants also identified early detection and improved treatment outcomes as key motivators for screening. They viewed screening as a proactive medical service that enables timely intervention and better health outcomes, which further strengthened their intention to participate in the near future. Sonali (44) similarly noted: “To me, cancer screening is a part of medical service needed for me to stay healthy, so it doesn’t matter to me if the health worker is female or male.”

Dependence on husbands’ permission

The interviews clearly illustrate that, in rural Bangladesh, most women’s access to healthcare is closely linked to their ability to communicate with and obtain approval from their families. Decisions regarding breast cancer screening are rarely made independently by women. Instead, most married women, particularly full-time housewives, lack autonomous decision-making power over their healthcare and must rely on their husbands for both permission and financial support.

Following marriage, responsibility for health-related decision-making often shifts from parents to husbands. One participant described this transition of decision-making after her marriage, stating:

Before I was married, my mother and father made all the decisions regarding my health.

After marriage, I have to inform my husband first. Usually, he tells me to wait and see for a while, and only if the problem persists does he tell me to go to a doctor (Maria, 24).

This account highlights how even when women experience health concerns, their concerns may be deferred or minimized within marital decision-making structures. Given their financial dependence and prevailing social norms that emphasize obedience to husbands, women often have limited scope to act independently.

This requirement for permission becomes particularly restrictive in the context of preventive screening. Participants noted that husbands often do not perceive the need for screening in the absence of visible illness or pain. Maria (24) explained: “He wouldn’t support the idea of me going for a screening unless there was a clear, physical problem or symptom.”

Even when women are aware of breast cancer risks and express a desire to engage in preventive care, a lack of spousal support can prevent action. This was illustrated by one participant who, despite having a family history of breast cancer and taking the initiative to go for screening, could not go, reported:

The main reason I haven’t had a breast cancer screening is not getting permission from my husband. Since my mother had it, I once took the initiative to get screened, but my husband forbade me from getting a screening without any symptoms, so I never went (Mitali, 22).

This demonstrates how limited autonomy over healthcare decisions can directly obstruct preventive action.

Overall, many married women reported feeling limited agency in screening decisions. Maria (24) summarized this dependency succinctly: “I cannot do anything regarding screening without my husband’s support.” For some participants, husband approval was identified as the decisive factor influencing whether they would pursue screening in the future.

In contrast, women who are not subject to spousal control reported markedly greater autonomy. Anowara (53) and Sonali (44), both widowed teachers, and Rupa (24), a divorced teacher, all of them financially independent, indicated that they do not require permission to seek healthcare. Anowara clearly stated:

If I want to get a cancer screening done now, I know I can do it without much hassle.

There is no hassle with going, managing the money, or getting permission; it completely depends on my own will.

This contrast among women in the same rural setting, differing in marital and financial circumstances, underscores the roles of economic independence and household structure in shaping healthcare access.

Overall, the findings suggest that husbands function as key “gatekeepers” to preventive healthcare. Even when women hold positive attitudes toward screening, their intentions are constrained by subjective norms shaped by spousal influence, and their perceived behavioral control is reduced due to limited communicative and financial autonomy.

Absolute Need for Female Healthcare Providers

For most participants, the presence of a female healthcare provider was considered an essential requirement for them to even contemplate undergoing breast cancer screening. Ensuring privacy, dignity, and protection from embarrassment was central to their concerns. Rupa (24) stated firmly: “It is important to me that the health worker during the screening is a woman because we live in a village, and I will only feel comfortable if there is a female worker present.” These accounts indicate that, for many rural women, adherence to cultural and modesty norms is a prerequisite for engaging with screening services, and the absence of female staff may lead to refusal to participate altogether.

For some participants, future intentions to undergo screening were entirely contingent on the availability of female healthcare providers throughout the screening process. In these cases, the presence of a male provider was described as an absolute barrier. Shila (29), a mother of four living in a 13-member household, recounted withdrawing from a medical procedure due to this issue: “Once, because there was a male doctor assigned, I left without getting my endoscopy done.”

For the majority of women interviewed, the idea of a male doctor performing a breast examination was perceived as unacceptable. Concerns about male providers observing or physically examining their bodies generated significant discomfort and anxiety. Munni (29) stated: “During the screening, I would feel more comfortable if the health worker is a woman.”

Overall, these findings suggest that the gender of healthcare providers is a critical determinant of acceptability and intention to participate in breast cancer screening, with female providers being viewed as essential for ensuring dignity, comfort, and cultural acceptability

RQ2: Based on their lived experiences, what community-informed strategies do these women suggest to overcome existing barriers and improve screening uptake?

Having established the complex web of individual, sociocultural, and systemic factors that inhibit participation in screening, this section now focuses on participants' recommendations for intervention (RQ2). When asked how to improve breast cancer screening uptake in rural Bangladesh, the women provided highly practical, lived-experience-driven strategies. Their suggestions aimed to dismantle both the deep-seated cultural silence surrounding women's bodies and the physical hurdles of the healthcare system. To capture these community-informed solutions, the following section is organized into two distinct themes. The first theme explores the need for proactive, interpersonal communication to destigmatize breast health, emphasizing the critical role of trusted health workers and physicians in initiating dialogue. The second theme then examines the necessity of accessible health resources, detailing how localized clinic infrastructure and the strategic use of visual social media can collectively reduce the logistical and psychological barriers to care.

Destigmatizing breast health through proactive, interpersonal communication

This theme synthesizes participants' recommendations for overcoming the deep-rooted cultural silence surrounding breast health. Because women in these rural communities are often hesitant to initiate conversations about sensitive bodily issues, participants emphasized that trusted authorities must take the lead in breaking the stigma. Therefore, this theme explores how interpersonal communication strategies can normalize these discussions and ultimately encourage screening uptake. First, it examines the need for female health workers to bring breast health education directly into safe, domestic spaces. Next, it highlights the critical role of

physicians in proactively initiating these dialogues during routine medical visits. Finally, it presents evidence that when women are provided with repeated, culturally sensitive exposure to this information, such as during the research itself, their attitudes can successfully shift from fear and uncertainty to a proactive willingness to screen.

Bringing Information Home

A key recommendation across all interviews was the need for effective health information dissemination strategies to increase screening participation among rural women. Given the practical difficulties of travelling to healthcare facilities and the cultural sensitivity surrounding discussions of breast health, participants strongly emphasized that health communication should be delivered directly in the home or community setting.

In rural Bangladesh, female health workers already conduct “courtyard meetings” to provide education on maternal health and family planning. Participants suggested that this existing model could be effectively extended to include information on breast cancer risk and the importance of screening. The use of female facilitators and women-only spaces was seen as particularly important, as it would create a safe, comfortable environment where women could listen, learn, and ask questions without embarrassment.

One of the women strongly supported this approach, stating:

There needs to be much more open discussion about breast health. If people understood the actual benefits of the test, they would be more motivated. So, there should be an outreach program where female health workers will visit door-to-door to explain these things, and I believe people would actually listen to them (Maria, 24).

However, participants also recognized that deeply rooted cultural silence surrounding breast-related topics cannot be changed through isolated interventions. They emphasized that sustained and repeated engagement is necessary to normalize discussions of breast health as one woman highlighted this clearly:

Doing this information campaign just 1 or 2 times won't be enough; it has to be a continuous effort because the habit of talking, or talking openly, about such a sensitive topic will not change in a short amount of time (Kohinoor, 42).

Overall, participants suggested that consistent community-based outreach by female health workers could gradually normalize conversations about breast health and make them as socially acceptable as discussions of other routine health issues.

Proactive patient-provider communication

Most participants also offered recommendations directed at doctors and government healthcare facilities. Because breast health is considered a sensitive and often embarrassing topic, women felt that patients are unlikely to initiate discussions themselves. As such, they emphasized the importance of healthcare providers taking a proactive role in raising the topic during routine consultations. When doctors introduce the subject first, it reduces the burden on patients and makes it easier to engage in discussion.

Participants suggested that doctors should actively communicate the importance of preventive breast cancer screening, even in the absence of patient prompts. They expressed strong trust in medical authority and believed that doctors' advice is generally accepted without question. Therefore, if healthcare providers consistently address breast cancer screening during routine visits, patients are more likely to become informed and take the issue seriously.

Maria (24) explained the importance of this proactive approach, stating: “I think doctors should provide this advice directly to patients during regular visits. Also, the behavior of doctors is crucial; they need to be approachable so we can discuss sensitive issues without hesitation.” Participants further noted that such communication from doctors could also help women advocate for screening within their households, as medical advice would carry greater legitimacy and be more persuasive to husbands and family members.

In addition to interpersonal communication, participants highlighted the need for stronger institutional visibility of breast cancer screening services in government hospitals. Many reported a lack of accessible information in local healthcare settings. Maria (24) suggested a simple but effective intervention: “Use leaflets and put up posters in hospitals.”

Participants believed that visible informational materials within healthcare facilities could help normalize breast cancer screening, framing it as a routine and necessary medical procedure rather than a socially sensitive or stigmatized topic.

Repeated exposure changes attitudes

An encouraging finding from the interviews is that participants were not inherently opposed to breast cancer screening; rather, they lacked adequate information and exposure to appropriate health communication. All participants noted that before the interview, they had never received a clear explanation of what screening involves or why it is necessary for individuals without symptoms. One participant strongly emphasized the importance of addressing this communication gap:

We need to talk about women’s breast health or screening and spread information, especially in the villages. I think if these things are explained to village people, they will

understand, but there is no one to explain it to them; to my knowledge, you are the first person to talk about this openly (Shila, 29).

Participants further reported that taking part in the interview itself influenced their understanding of breast cancer and screening. Many indicated that previously held misconceptions were clarified once the screening process was explained, particularly regarding its preventive purpose, safety, and non-invasive nature. This increased understanding contributed to a shift in their expressed willingness to consider screening in the future.

Several women described moving from uncertainty or confusion toward a greater sense of confidence and empowerment regarding breast health, as at the end of her interview, one of the women stated:

I intend to get screened at least once in the next two to three years. If I notice any symptoms, I will go immediately. After participating in this interview today and learning more, I actually feel a strong desire to go and get screened (Maria, 24).

These accounts suggest that when women are provided with clear, repeated, and culturally appropriate information, their attitudes toward screening become more positive and proactive. This indicates that the primary barrier to preventive screening is not solely structural or financial, but also a persistent lack of accessible, safe, and contextually appropriate communication about breast health.

Reducing Psychological and Logistical Barriers Through Accessible Health Resources

While the previous theme addressed the communicative strategies necessary to break the cultural silence surrounding breast health, participants emphasized that destigmatization alone is

insufficient without practical access to care. This final theme synthesizes the environmental and structural solutions proposed by the women to make preventative screening a feasible reality.

Specifically, this theme explores how improving external health resources can simultaneously alleviate logistical burdens and psychological fears. First, this section examines the urgent need for well-equipped, localized healthcare facilities to eliminate the prohibitive costs, travel requirements, and reliance on male escorts associated with seeking care in distant cities. Second, it highlights an unexpected digitally driven solution: the strategic use of visual social media platforms as educational tools to demystify medical machinery, familiarize women with clinical procedures, and ultimately reduce the anxiety of the unknown.

Improving Local Healthcare Resources

Participants emphasized that strengthening local healthcare services would significantly increase their perceived ability to access breast cancer screening. They explained that if screening services were available locally, they would not need to travel to distant cities, arrange male escorts, or allocate an entire day free from household responsibilities, all of which currently act as barriers.

Most participants strongly believed that government investment in local clinics, including the provision of qualified healthcare professionals and appropriate diagnostic equipment, would improve screening uptake. Mitali (22) offered a clear suggestion: “Nearby health centers should be equipped with good doctors and machinery so that women can easily go there instead of having to travel to a distant city.” Similarly, another woman noted:

It would be good if there were good screening facilities nearby at a low cost, because it is not possible for everyone to go far away outside their local area to get screened, and many won’t want to spend money if they don’t have symptoms (Taslina, 30).

Adding to that, Maria (24) linked service availability to awareness, stating: “In villages, we lack good doctors, and healthcare is often neglected. If we had better facilities and screening available locally, awareness would grow.”

Overall, participants perceived the availability of high-quality local services as a key enabler of screening behavior by reducing logistical, financial, and social constraints.

Social Media as a Visual Learning Tool

An unexpected finding was the role of social media platforms such as Facebook and TikTok in shaping women’s understanding of healthcare experiences. While participants did not fully trust the medical accuracy of online content, they used visual materials to reduce fear of unfamiliar medical procedures. For many women, healthcare equipment and procedures are perceived as intimidating, and seeing them explained visually helps normalize the experience and reduce anxiety by making the unknown more familiar. One of the participants described how social media helped reduce her fear before undergoing a medical procedure:

I mostly see health-related information on social media. Before doing anything, I check social media, like Facebook, first to get a general idea. For example, once I had to get an endoscopy done, I searched on Facebook first to see what it was, and afterwards, my fear went away... I think posting this kind of content on Facebook will be helpful (Munni, 29).

Participants reported that social media, particularly Facebook, is one of their primary sources of health-related information. Many use short-form videos on platforms such as Facebook, TikTok, and YouTube, with Facebook emerging as the most frequently used. Short videos were preferred because they were accessible during busy daily routines. As Maria (24)

explained: “I watch a lot of health-related content on TikTok, mostly viral clips, short videos, or live streams, and I tend to avoid long-form content because I don’t have the patience for it.”

However, participants expressed considerable caution regarding the credibility of online health information. Although they frequently encounter such content, they rarely fully trust it, particularly if it does not originate from verified medical sources. Rupa (24) stated: “If I see any health-related information on social media that's not from a doctor’s official page, I don’t believe it.” Some participants also noted that exposure to unverified health content can increase anxiety rather than provide reassurance. Mitali (22) explained: “Even though I see health-related information on Facebook, I don’t really trust it because when I see it, it makes me think that I have a lot of problems myself.”

Overall, while social media serves as an important visual learning tool that reduces procedural fear and increases familiarity, participants ultimately relied on doctors and qualified healthcare professionals as the most trusted sources for making health-related decisions.

Chapter Summary

This chapter has detailed the lived experiences of rural Bangladeshi women, illuminating the complex web of factors that shape their participation in preventative breast cancer screening. By organizing the findings through the lens of Theory of Planned Behavior (RQ1), the data revealed how deeply entrenched sociocultural norms, particularly a pervasive “culture of silence,” intersect with severe logistical barriers to inhibit screening intentions. However, the findings also demonstrated that these barriers are not insurmountable. By centering participants’ voices (RQ2), this chapter highlighted community-informed strategies that emphasize the critical

need for proactive, interpersonal communication and the development of highly accessible, localized healthcare resources.

Building upon these findings, Chapter 5 will transition from presenting the data to interpreting its broader significance. The following chapter will contextualize these findings within the existing health communication and public health literature and discuss the theoretical implications of applying the TPB in a rural South Asian context. Finally, Chapter 5 will translate participants' insights into practical, actionable recommendations for designing culturally sensitive health interventions, while also acknowledging the study's limitations and suggesting avenues for future research.

Chapter 5 - Discussion

Breast cancer has escalated into a severe public health crisis in Bangladesh, contributing significantly to female cancer-related mortality due to a lack of early-stage diagnosis (Hasi et al., 2025). This late detection is largely attributed to a lack of screening, including Clinical Breast Examination (CBE), mammography, and Breast Self-Examination (BSE). The primary objective of this study was to explore the underlying communicative, socio-cultural, and psychological factors influencing rural Bangladeshi women's intention to participate in preventative breast cancer screening.

To explore this, the study used the framework of the Theory of Planned Behavior (TPB), which treats behavior as a function of the intention to perform (Ajzen, 1991). According to the TPB, the intention to engage in a health behavior, in this case, breast cancer screening, is determined by women's attitudes, subjective norms, and perceived behavioral control (PBC), making TPB an effective model for explaining screening intentions in clinical contexts (Griva et al., 2010; Bowie et al., 2003). By applying a communication-centered lens alongside the TPB, this study illustrates that women's health behaviors are shaped not only by physical access to care but by their ability to communicate, interpret, and negotiate health information. Through in-depth interviews, this research answers its core questions by uncovering how limited health communication shapes attitudes, how cultural norms enforce subjective pressures, and how a lack of autonomy over one's own healthcare undermines perceived behavioral control.

The findings of this study clearly show that the socio-cognitive factors like attitude, social support, and women's confidence to engage in preventative screening do shape rural women's intention to participate in the screening to a certain extent, but they are also influenced by the deep-rooted cultural norms, existing knowledge gaps, and ingrained health beliefs. While

previous literature frequently attributes extremely low screening participation rates, often below 1%, to logistical barriers such as distance, cost, and access limitations (Yaya et al., 2017; Azim et al., 2025), this study, while supporting this, also challenges the dominant narrative that removing logistical barriers will greatly increase screening participation.

By illuminating that the primary barrier to cancer screening participation is a profound communicative void that affects all the factors from women's attitudes towards screening to their self-efficacy, this study fills the critical gap explaining why the presence of healthcare infrastructure alone does not translate into utilization when the target population is culturally constrained and communicatively isolated.

Theoretical Contribution: Recontextualizing the Theory of Planned Behavior

The overarching theoretical contribution of this study lies in its application and recontextualization of the Theory of Planned Behavior in highly restrictive, conservative contexts such as rural Bangladesh. By applying this framework to understand rural women's decision-making regarding preventive breast cancer screening, the findings demonstrate not only the relevance of the theoretical constructs in explaining health behavior, but also how these constructs are shaped and constrained by cultural norms, stigma surrounding breast health, women's knowledge and belief about preventive screening (including perceived vulnerability and perceived usefulness), and the widespread information gap. This highlights that culturally safe health communication is a foundational prerequisite for influencing attitudes, subjective norms, and perceived behavioral control, all of which are necessary for behavior change. Without the ability to speak, learn, and negotiate, the formation of intention is severely constrained.

Traditionally, the Theory of Planned Behavior assumes a baseline level of individual autonomy, where individuals are able to cognitively evaluate a behavior and form an attitude, socially assess subjective norms, and independently judge their capacity to act, thereby establishing perceived behavioral control (Ajzen, 1991). However, this study shows that for rural women in Bangladesh, this baseline assumption of autonomy does not hold. The constructs do not operate independently or purely internally in this context.

In an environment where even mentioning “breast” is considered taboo and can lead to intergenerational conflict or marital tension, women are unable to safely access or process the information needed to form informed attitudes. Instead, their attitudes are shaped by limited knowledge drawn from others' experiences. Similarly, they cannot meaningfully assess subjective norms, as the dominant norms are silence and modesty. Their perceived behavioral control is also severely constrained, as healthcare decisions are largely controlled by husbands, and women often lack the communicative agency to negotiate access to care.

As detailed in the following sections, this theoretical argument is supported by the qualitative data. Once women were provided with a safe and supportive space to learn about asymptomatic screening, many expressed an immediate shift in intention. This change was not driven by improved logistics, increased financial resources, or shifts in husbands' attitudes, but rather by access to culturally safe communication that clarified perceived risk, benefits, and, for some women, increased confidence in their ability to obtain permission from husbands who also lacked accurate knowledge.

These findings suggest that while structural barriers such as cost and healthcare infrastructure remain important, a fundamental barrier in this context is the systemic restriction of women's access to information and safe communication spaces. When this silence is

disrupted, the capacity to form intentions towards preventive care becomes significantly stronger.

The Danger of the Knowledge Void and Cultural Stigma on Attitude

The study first sought to understand women's attitudes towards breast cancer screening and screening procedure and found that their attitudes towards screening are actually shaped by the existing cultural taboo around female health and breast cancer topic, their knowledge about the cancer symptoms and risk factors, their knowledge and feelings about the screening procedure. The finding here is interesting because, in straightforward terms, all the women agreed that preventative screening is universally useful for themselves and for other women. However, when it came to explaining their personal attitudes towards undergoing the screening procedure, a significant negative shift was observed in relation to the deeply embedded cultural silence surrounding women's health, intense stigma related to the female body, and a total lack of education regarding asymptomatic diseases.

Within the TPB framework, "attitude" refers to an individual's evaluation of a behavior as favorable or unfavorable. Previous academic literature heavily relies on the assumption that rural women fail to form positive attitudes toward screening due to a general "lack of awareness" or low risk perception (Amin et al., 2020; Alam et al., 2021; Azim et al., 2025). However, the findings of this study have some dissimilarities with the literature's framing of these women as passively ignorant, showing that women do think screening is necessary and are also aware of the disease, however, they think that preventative breast cancer screening is not a viable or culturally acceptable action while living in a rural setting because of the existing taboo surrounding female health, particularly "breast". This explains that a generic "lack of awareness" or "low risk perception" is a severely incomplete, and perhaps mildly dismissive, explanation for

their attitudes towards cancer screening. Additionally, the study does not show a difference in attitudes toward the screening procedure between housewives and working women, which directly contrasts the previous study by Azim et al. (2025), who found that housewives were significantly less likely than government workers to hold positive attitudes towards cancer screening.

For women, their attitude toward preventative screening is actively constructed by a lifelong conditioning of bodily concealment. Some women in this study shared a highly traumatic awareness of the disease's mortality, having watched relatives succumb to breast cancer; however, they still thought preventative cancer screening was unnecessary for them because they could not accept the idea of getting their breasts checked by others without any symptoms. This study reframes this phenomenon not as a fleeting emotion, but as a rigid "lifecycle of concealment." Long before breast cancer becomes a risk, rural women are taught to suppress and hide perfectly normal biological functions, from menstruation to pregnancy. Because the community treats basic reproductive health as a source of public shame, the concept of exposing the body to a health worker, even for life-saving preventative care, is evaluated as unnecessary or, for some women, a severe moral violation. The qualitative data reveal that the negative attitude of getting screened themselves and the screening procedure itself is the culmination of this lifelong communicative conditioning.

This cultural norm of viewing women's body parts as something shameful or secretive also affected women's idea of "modesty", which directly affects their attitudes towards cancer screening. Existing literature frequently points to modesty as a barrier, with Amin et al. (2020) noting that 64.6% of women felt "embarrassed" telling others about breast cancer or felt "shy" about uncovering their breasts. Huq et al. (2024) similarly refer to this as a "stigma" faced in

conservative societies. However, reducing modesty as a barrier severely undersells the psychological mechanism at play, because here modesty is not just women's own perception of shyness or embarrassment, but is also shaped by the culture itself that expects women to prioritize modesty over everything. That's why when clinics fail to guarantee female healthcare workers, this moral boundary is breached, leading to an immediate and absolute rejection of the procedure. However, the study does not show a difference in attitudes towards screening or the screening procedure between housewives and working women, contrasting the previous study by Azim et al. (2025), which found that housewives were significantly less likely than government workers to hold positive attitudes towards cancer screening.

The danger of the knowledge void regarding BC symptoms and their risk factors also shapes women's attitudes towards cancer screening. The absence of formal health communication can create misconceptions, which can serve as behavioral beliefs that inform attitudes. Previous study identified that over 90% of women avoid screening due to a lack of symptoms (Islam et al., 2016), with some adding that it's because women do not understand the assessment of asymptomatic disease (Wu et al., 2012). The present study also supports this literature by showing that this knowledge gap about cancer symptoms, risk factors, and the concept of preventative screening actively influences women's attitudes towards the usefulness of screening. Previous studies show that women primarily recognize lumps and pain as symptoms of breast cancer (Hasi et al., 2025); they fail to recognize other symptoms like lumps in the axilla and nipple discharge, which is also observed among the participants in this study. All the women in the present study knew about lumps and pain as the main symptoms, but no one knew about nipple discharge, nipple discoloration, or retraction, confirming that knowledge of cancer symptoms is exceptionally poor, as noted in other studies as well (Alam et al., 2021).

Another important gap is the total absence of the idea of asymptomatic status, as none of the women in this study knew that cancer could happen without any visible symptoms. This lack of knowledge about symptoms and asymptomatic status negatively affected women's attitudes towards preventative screening, since they think it is not worthwhile to get screened if they don't have symptoms.

Additionally, the women in this study have a serious misconception about breast cancer risk factors, thinking that pregnancy and breastfeeding are the direct *causes* of breast cancer. Because most of the experiences the participants had with breast cancer in their families occurred when the patients were breastfeeding, the women incorrectly link the two. This misconception about risk factors directly clashes with the epidemiological reality highlighted in The Collaborative Group on Hormonal Factors in Breast Cancer (2002), which shows compelling evidence that increased parity and duration of breastfeeding actually reduce the risk of breast cancer. Because of this wrong perception about risk factors, women falsely evaluate themselves as "safe" when they are not lactating, leading them to evaluate preventative screening as unnecessary. Another misconception regarding risk factors involves having asymmetric breasts can be a sign of breast cancer. While an asymmetric breast is perfectly normal and common among women, this misconception leads women with symmetrical breasts to believe that preventative screening is not applicable to them. As Story et al. (2012) argued, a lack of awareness reflects an incomplete understanding of the situation, as women in developing nations are often fully aware of life-threatening problems but face myriad other priorities and societal forces that compel them to make a conscious decision not to seek care. They do not lack an understanding of mortality; they lack an understanding of the clear picture, of the actual risk factors, and of what the screening procedure entails.

Furthermore, women's attitude formation about cancer screening is also affected by the lack of knowledge about available cancer screening methods. The government has adopted Clinical Breast Examination (CBE) as the primary, low-cost screening method in 271 Upazila Health Complexes across all districts in Bangladesh (Hussain & Sullivan, 2013), and Islam et al. (2016) reported that 97% of their participants were aware of CBE. However, the data from this study completely contradict Islam et al.'s statistical findings, aligning instead with Alam et al. (2021) and Sarker et al. (2022), who found that CBE was the least known method among their study population. Absolutely none of the participants in this study knew what CBE was. They associated breast screening exclusively with mammograms, and all the women in this study were aware of mammograms. Because health authorities have failed to communicate the availability of CBEs locally, women assume that screening requires a machine, a service that is only available in a distant city. This lack of awareness about readily available screening methods, combined with the misconception that screening is unnecessary in the absence of symptoms, undermines women's attitudes toward preventive care, leading them to perceive screening (mammograms) as neither routine nor easily accessible.

However, this internalized "lifecycle of concealment" does not exist in a vacuum. The individual knowledge void shapes a woman's attitude, which is actively constructed, monitored, and enforced by the surrounding social environment. To fully understand why these restrictive attitudes persist, it is necessary to examine the subjective norms, particularly the severe communicative policing within the joint family structure, that ensure this silence remains unbroken.

Silence Surrounding Breast Health Fosters an Unsupportive Environment

This study sought to uncover how societal taboos and family dynamics shape rural women's perceptions of social norms and, in turn, their decision to participate. Subjective norms refer to the perceived social pressure or support an individual feels to perform or hide a specific behavior. The stories collected in this study show that support for women's health, both from families and the wider community, is largely absent in rural Bangladesh. Social expectations and family pressures often discourage women from talking openly about breast health and from taking part in preventive screening. A key contribution of this study is showing how these strong social influences shape women's decisions, and how important family and community support is for encouraging women, especially in rural areas, to seek preventative cancer screening.

Women in conservative societies often receive little family support when dealing with sensitive health issues (Chintapally et al., 2023), a pattern also evident in this study. The women's accounts clearly show a lack of support from partners, family members, and the wider community when seeking care, which in turn affects their willingness to participate in screening. However, the deeper, underlying reasons for this lack of support are rarely examined and remain largely overlooked in existing research. Support for preventive screening is not simply present or absent; it is shaped by a range of social and cultural factors. Reducing it to labels such as "poor" or "strong" oversimplifies the issue and risks minimizing the difficult realities these women face in their everyday lives.

The most significant challenge for rural women, especially those who are married and full-time homemakers, is their husbands' lack of support for preventive care. Women in this study reported that their husbands are generally supportive when health problems become serious and may encourage them to visit a doctor. However, they expressed strong concern that their

husbands would not support preventive cancer screening in the absence of symptoms. The women described this lack of support from two main perspectives. First, they believed that their husbands would not take their concerns seriously if they were not visibly ill. Without symptoms, seeking screening would be seen as unnecessary, and husbands would likely view it as a waste of time and financial resources that might not lead to any tangible outcome. Second, the women emphasized the difficulty of communicating the importance of preventive screening. They explained that their husbands also lack basic knowledge about breast health and cancer risk, which makes it harder to justify the need for screening. As a result, husbands may become unsupportive when preventive care is introduced. In addition, many husbands are occupied with work outside the home and may not have the time or patience to engage in conversations about preventive health. These findings align with those of Story et al. (2012), which show that women's health concerns are often given lower priority than those of men.

Another surprising finding from the interviews is that women do not expect support from the female members of their in-laws' household and instead anticipate hostility. This shows that the issue is not only unsupportive husbands but also unsupportive female family members who enforce these restrictive subjective norms, which represents a nuanced theoretical contribution of this study. The study clearly shows that the culture of silence and lack of support for women's health is not solely imposed from the top down by patriarchal male authority; it is also actively nurtured, monitored, and enforced by other women.

The concept of "intergenerational policing" within the joint family structure emerges as a major contributor to this unsupportive environment, which is often overlooked in the literature. In rural settings, this form of policing ensures that the bride remains a quiet and functional part of the family unit, leading women to hide their health issues in order to protect their status within

the household. If a young bride voices a physical complaint, the prevailing subjective norm frames her as burdensome. As a result, women believe that speaking up about the need for preventive breast cancer screening would not only be embarrassing but would also violate the expectations of their husbands' families, thereby creating a deeply unsupportive environment for seeking such care. For a woman in this rural community, asking her husband or his family for the time and financial resources to obtain breast cancer screening means risking her social standing, her reputation, and her peace within the household. Story et al. (2012) support this severe consequence, documenting that women fear that a cancer diagnosis may lead to abandonment by their husbands and highlighting how the perception of women as "expendable" can be deeply harmful.

Additionally, the study shows that it is not only the women in the family but also women in the neighborhood who contribute to this unsupportive environment. Due to their mockery of breast-related discussions, women do not believe that other women, especially older women in society, would view preventive screening as important or would encourage this behavior, as these same individuals are also expected to avoid it when it applies to them.

This lack of support is also reflected in women's communication patterns, as they carefully choose whom they speak to about female health-related issues. The study showed that almost all married women feel comfortable discussing breast health in their maiden homes with their own mothers or sisters, but they would never think about communicating such issues in their marital homes. This harsh environment naturally discourages women from feeling supported in their decisions to undergo cancer screening.

The study also illustrates that rural women's lack of support is not only reinforced by husbands, female in-law members, or other older women in the community, but that society as a

whole is also not a supportive space in which women can feel encouraged to seek preventive cancer screening. With existing societal and cultural taboos around female-specific health issues and the topic of breasts, women do not believe they would be supported if they attempted to seek preventive screening. Women report that since open discussions about breasts are strictly prohibited and often met with either mockery or shame, they expect that society would react negatively if someone were known to be undergoing breast cancer screening. The study also showed how one girl's family suppressed her breast cancer diagnosis and treatment due to fear of societal judgment. This reflects how families fear that society will not treat it as a normal illness but will instead gossip and speak negatively about their daughter. This strong pattern of silence and fear of social judgment significantly undermines any positive social support, leaving women isolated, unable to communicate openly, and unsupported in their intentions to seek healthcare.

Women's lack of autonomy over their health limits their ability to seek care

When examining the factors that shape women's confidence in participating in preventive cancer screening, this study shows that such confidence is not determined solely by proximity to a clinic or by having sufficient time and financial resources. Within the Theory of Planned Behavior framework, perceived behavioral control refers to an individual's belief in their autonomy, capacity, and ability to successfully perform a specific behavior. The findings of this study overwhelmingly demonstrate that, for the vast majority of married rural women in Bangladesh, perceived behavioral control over their own healthcare is extremely limited.

Within this theoretical construct, this study seeks to challenge prevailing assumptions regarding healthcare underutilization by examining logistical and access-related barriers. Existing literature frequently identifies physical distance and economic constraints as the primary reasons why women do not undergo screening. Yaya et al. (2017), for instance, attribute

underutilization largely to the physical distance to healthcare facilities and perceived high access costs, drawing on Aktar (2012) to suggest that the decision to seek care is primarily influenced by service location. Similarly, previous studies have shown that geographic inaccessibility and inconsistent clinic availability remain key limiting factors to screening participation (Steiness et al., 2018; Tesfaw et al., 2020).

While logistical constraints are undoubtedly significant in a lower-middle-income country context and are observed in this study as well, the qualitative data reveal a more complex and restrictive reality. Contrary to the argument of previous studies, this study argues that even if a fully equipped, free breast cancer screening clinic were located directly next to these women, the majority would still be unable to access it. This is because they lack the autonomy and mobility to act independently and must also navigate additional responsibilities such as childcare and limited personal time.

As discussed in relation to subjective norms and unsupportive husbands, a major barrier to women's confidence in breast cancer screening is husbands' control over healthcare-seeking decisions. This is particularly evident among full-time housewives who depend on their husbands for permission to access resources, thereby subjecting their health-related decisions to male authority. This finding is consistent with existing literature, as Huq et al. (2024) highlight that women have limited power to access resources related to sensitive health issues in conservative societies.

This lack of autonomy also extends to physical mobility, as familial and societal expectations require women to be accompanied by an escort when traveling, which further restricts their ability to participate in preventive cancer screening. Strict cultural norms regarding female mobility prevent rural women from traveling to clinics alone. A married woman must

first communicate her need for an acceptable escort, usually her husband or a male relative. If she is unable to secure permission or accompaniment, she is effectively unable to travel. Story et al. (2012) accurately capture this severity, noting that women frequently cannot access services simply “because their families will not allow them to leave the home.” Attempting to travel without permission or an escort can lead to harmful gossip that threatens a woman’s marriage and social standing. As a result, the physical distance to a clinic becomes secondary to the cultural constraints on a woman’s autonomy. However, women note that this barrier can, in theory, be resolved through a husband’s permission, since he can accompany them or arrange an escort if he approves the decision to seek healthcare, which clearly illustrates that the lack of autonomy over personal health decisions, combined with the social and physical realities of rural norms, significantly undermines women’s confidence to participate in screening.

On the other hand, this study uncovered a stark contrast that highlights the strong impact of autonomy over healthcare decisions on women’s confidence in navigating financial and mobility barriers. The widowed and divorced participants who worked outside the home as teachers demonstrated a significantly higher level of perceived control over their ability to seek care. Because they earned their own income and were no longer under a husband’s direct authority, they reported that they could access screening without the “hassle” of seeking permission or waiting for a male escort. This contrast shows that low screening rates are not only related to physical distance to healthcare facilities. Instead, they are strongly shaped by women’s dependence on others for decision-making, which in turn reinforces structural financial dependence and restricted personal mobility. This finding directly supports the argument made by Yaya et al. (2017), who note that educated women are “better equipped for initiating and controlling decision-making affairs regarding health issues.

Beyond the barriers of husbands' control over health and mobility, the heavy burden of childcare and domestic labor places severe time constraints on women, which undermines their perceived control over seeking care. Amin et al. (2020) found in their survey that 38% of women reported being "too busy" or having no time for screening, findings consistent with this study, in which all women with children reported spending their entire day attending to their children and other family members' needs. However, the cultural mechanism underlying this "busyness" should not be overlooked. As this study shows, seeking healthcare in the absence of severe symptoms is often culturally viewed as unnecessary. As a result, arranging time for preventive screening requires an extensive and exhausting process of first ensuring that household responsibilities are fully managed. This has also been noted in previous research, where Story et al. (2012) found that women feel they have "too much responsibility to the family (child and elder care, cooking, and cleaning) to leave for her own care." This lack of time, therefore, becomes a barrier, as it generates additional access constraints that further prevent women from participating in screening. Furthermore, Alam et al. (2021) point out that socio-cultural factors contribute to a "lower preference for the treatment compared to younger family members," suggesting that mothers often neglect their own health to prioritize their children's needs. Therefore, women are not simply "too busy"; rather, their time is structurally constrained in ways that prevent them from prioritizing their own health.

Surprisingly, none of the women identified financial barriers as a factor limiting their confidence or screening behavior. Previous studies, such as Hasi et al. (2025), support the view that socioeconomic factors, including family income, strongly shape health behaviors. However, the findings of this study appear to contradict this, as women reported that screening costs are relatively affordable. They explained that most people could manage the small amount of money

required, and even when it is difficult, financial support could be accessed through non-profit organizations or other sources of assistance. The women further justified this by noting that people often spend considerable amounts on items such as clothing and other consumables, suggesting that setting aside money for screening should not be a major problem for most households. However, this apparent lack of financial concern may also be influenced by the sample composition: some participants were working women with their own income, while housewives reported that their husbands typically provided financial support when needed.

Finally, this study also illustrates that women's perceived behavioral control is further undermined by the reality of the healthcare environment. While the government has established clinical breast examination (CBE) centers in 271 Upazila Health Complexes (Sarker et al., 2022), participants reported that such services are not available in their local clinics. Many women also expressed uncertainty about where to go to schedule these visits and reported a deep lack of trust in local healthcare facilities. As a result, most women believed that screening services existed only in large cities, where qualified doctors and better-quality care were available. Huq et al. (2024) support this systemic issue, highlighting centralization of services, inadequate infrastructure and resources, and non-functional equipment as key limitations within the system. Story et al. (2012) further illustrate this challenge, noting a severe doctor-to-patient ratio of 1:15,000 in rural areas and describing situations where women travel long distances to clinics only to find that doctors are absent. Because local services are perceived as unreliable or ineffective, women feel compelled to travel to larger cities for screening.

Overall, this study suggests that access barriers to distant facilities create additional challenges; however, the more fundamental issue is women's lack of control over their own healthcare-seeking decisions, along with restricted mobility, limited time, and the demands of

coordinating daily responsibilities. These combined factors further reduce women's confidence in their ability to participate in screening.

Practical Contributions

Having established the theoretical necessity of recontextualizing the Theory of Planned Behavior to account for restricted communicative autonomy, this chapter now turns to the practical application of those findings. While theoretical frameworks are essential for diagnosing the underlying cultural and systemic barriers to care, designing effective public health interventions requires identifying actionable levers for change. To that end, this section translates the participants' lived experiences into strategic, on-the-ground guidance. First, it explores the specific, context-dependent catalysts and gatekeepers (e.g., perceived personal vulnerability and the absolute requirement of spousal permission) that directly moderate a woman's actual intention to screen. Building on an understanding of these immediate triggers, the section then presents community-informed strategies, offering participant-driven recommendations for designing culturally safe, localized health communication interventions to dismantle the culture of silence.

Context-specific Catalyst and Gatekeepers of Screening Intention

While attitudes, social norms, and behavioral control set the foundation, this study identifies more specific, context-dependent factors that directly shape whether a woman intends to participate in preventive screening in the near future. To understand these influences, the study examined the mechanisms that encourage or discourage women from developing such intentions and found that perceived vulnerability to breast cancer, the perceived benefits of early detection, the requirement of spousal permission, and the perceived need for female healthcare providers

are key factors that ultimately shape women's intentions to participate in preventive screening in the near future.

One of the most striking findings is that even women who have witnessed family members die from breast cancer still do not seek screening for themselves, and the women's narratives suggest that a key barrier in these cases is a low sense of personal vulnerability. In these communities, visiting a doctor is largely associated with experiencing severe symptoms. Because public health messages have not effectively communicated that breast cancer can develop silently, many women incorrectly assume that the absence of symptoms means there is no risk. This finding aligns with Islam et al. (2016), who identified a lack of understanding about the importance of assessing asymptomatic women as a major barrier to early diagnosis. However, once women became aware that breast cancer can develop without symptoms, their sense of vulnerability increased, and they expressed a stronger intention to seek preventive screening in order to reduce that risk.

Conversely, for a small number of women, it's not the perceived risk but the perceived benefits of preventive care that serve as strong motivators, positively shaping their intention to undergo future screening. These women explained that preventive screening helps them maintain their health and provides reassurance by reducing uncertainty about whether cancer may be developing silently. As a result, they expressed a clear intention to participate in screening in the near future. This aligns with Azim et al. (2025), who note that although actual screening uptake remains low, willingness to participate is significantly higher once the concept and value of early detection are understood.

Thirdly, this study establishes that, for some women in rural Bangladesh, obtaining a husband's explicit permission acts as the ultimate gatekeeper to their intentions, a factor that has

been only minimally addressed in previous literature. Because married rural housewives often lack financial independence, seeking medical care requires negotiating with their husbands for both travel funds and approval. This finding provides important qualitative context to Story et al. (2012), who observed that women may avoid seeking care due to strong fears of marital conflict. Huq et al. (2024) similarly note that women's behavioral intentions are often constrained because they lack the communicative power to override their husbands' decisions. In this context, a woman's intention is not entirely her own; it is highly dependent on her husband's approval. If a husband holds the belief that medical visits are only necessary for visible illness, a request for asymptomatic screening is likely to be refused, regardless of the woman's perceived vulnerability or awareness of the benefits of screening. If the husband does not approve, women reported that they would not proceed with screening.

The fourth factor identified in this study is the gender of the healthcare provider, which emerged as a non-negotiable influence on women's intention to seek screening. Amin et al. (2020) noted that women feel "shy" about uncovering their breasts, while Alam et al. (2021) highlighted a "lower preference" for treatment due to socio-cultural factors. However, this study suggests that for some women, this is not simply a matter of preference or shyness, but a firm boundary grounded in deeply held beliefs about modesty. Story et al. (2012) highlight the seriousness of this issue by noting that female doctors are extremely scarce in Bangladesh, comprising only 23% of medical graduates since 1971. This shortage, combined with women's need for female-only providers, has a substantial impact on screening participation. If a clinic cannot guarantee a female practitioner, some women may never intend to participate and may instead avoid screening altogether. Therefore, the availability of a female healthcare provider emerges as a key structural requirement for the formation of screening intentions.

Community-informed Strategies for Health Communication Interventions

This study identified culturally appropriate intervention strategies to improve screening uptake among rural women, as suggested by participants. The findings highlight several important communication strategies and information channels proposed by rural women to address stigma and increase screening participation, offering practical, actionable solutions grounded in the experiences of the target population. While these recommendations have clear policy relevance, their theoretical significance is also important, as they implicitly reflect and help diagnose the systemic barriers women face in accessing preventive care.

One of the most significant discoveries from these interviews is that women are not inherently opposed to screening; rather, they have lacked appropriate communication and information. All participants noted that, prior to the interviews, no one had ever clearly explained what screening involves or why it is necessary for asymptomatic individuals. Once the procedure was explained in simple terms during the interviews, including that it is safe, non-invasive, and capable of detecting cancer before symptoms appear, their intention to undergo screening in the near future increased immediately. This shift was reflected across participants, who moved from confusion to a sense of clarity and empowerment, with women such as Maria (24) expressing a strong renewed intention to seek screening. This change suggests that when rural women are provided with clear, culturally appropriate information, they are willing to take steps to protect their health, as the participants themselves clearly emphasized the importance of communication as a key factor in improving screening uptake.

The most important recommendation emphasized by all women is the need to address the information gap through a culturally sensitive, female-led, community-centered approach. All participants advocated for formal health communication to be delivered directly in their safe,

familiar spaces, particularly through “courtyard meetings” led by female health workers. This recommendation is also supported in the literature, where female community health workers, such as BRAC’s Shasthya Shebikas, are described as central to Bangladesh’s health system, reaching approximately 25 million households each month (Ahmed et al., 2013; El Arifeen et al., 2013; Hossain et al., 2014). The effectiveness of female-led approaches is not limited to Bangladesh; evidence from rural Sudan shows that non-medical female volunteers from local communities can play an important role in implementing breast cancer screening programs (Abuidris et al., 2013). Similarly, Sapkota et al. (2016) advocate peer-led educational sessions as an effective strategy to improve screening uptake. The women in this study, therefore, implicitly identify that breast cancer screening initiatives must make use of this established female-oriented, door-to-door infrastructure if cultural taboos are to be meaningfully addressed.

This study not only justifies the validity of this recommendation but also extends it by linking it to underlying theoretical mechanisms. The need to fill the information gap is not only about increasing knowledge but also about normalizing breast health within the community and improving perceived social acceptance around screening. A female health worker visiting households to discuss breast cancer and preventive screening could improve women’s understanding of risk and benefits, which would in turn strengthen their attitudes and intentions towards screening. Such interactions would also create a safe space for women to raise concerns they would otherwise feel uncomfortable discussing with others. In addition, these meetings could improve understanding of the screening process itself, thereby reduce fear and embarrassment, and increasing women’s confidence to seek care independently when needed by clarifying where to go and whom to contact. Importantly, courtyard meetings may also help normalize conversations about breast health, gradually shifting existing social norms. As breast

health becomes recognized as a legitimate health topic rather than a taboo or sexualized subject, open discussion may become more acceptable across different social settings. Over time, this shift may support more positive social norms and increase acceptance of preventive breast health care.

Secondly, women placed significant responsibility on doctors to initiate conversations during routine visits. Because rural women cannot safely initiate discussions about their private body parts due to intra-gender policing and modesty norms, they require medical professionals to proactively bridge this gap. This recommendation is also likely to influence women's attitudes, subjective norms, and perceived control over participation in cancer screening. First, when doctors initiate conversations about preventive care, it can positively shape women's attitudes towards screening and the screening process itself. Second, because many women attend consultations with their husbands, doctors' recommendations carry considerable weight. In Bangladesh, doctors are highly trusted and regarded as authoritative sources of information, which means husbands are also more likely to take their advice seriously. As a result, women will feel more supported in their decision to undergo screening, and husbands are more likely to grant permission when a respected doctor explicitly recommends it.

Other studies, such as Story et al. (2012), also note that general messages about "breast cancer awareness" are well-intentioned but unlikely to lead to meaningful change unless they address individual patient circumstances. By emphasizing the need for doctors to initiate communication, women are identifying a culturally acceptable way to bypass potential barriers created by unsupportive spouses or family members who may otherwise silence them. Finally, effective communication between patients and providers regarding breast cancer and preventive screening can also strengthen women's sense of control and confidence. It provides them with

clear information about where to access screening and the steps involved in scheduling, thereby making the process more understandable and less intimidating.

Another recommendation from the women in this study is to allocate more resources to local clinics. Participants reported that local facilities often lack the necessary equipment and machinery for breast cancer screening, as well as sufficient numbers of qualified doctors and healthcare workers. While women acknowledged that improving clinic resources may not directly change attitudes or social norms surrounding breast cancer screening, they believed it would help reduce logistical barriers, thereby strengthening their perceived control over participation. To feel “capable” of accessing screening services, women emphasized that local healthcare provision must be improved. Most participants strongly believed that if the government provided adequate resources and trained healthcare workers at local clinics, more women would be able to navigate practical barriers such as distance, time constraints, and the need for an accompanying person, since services would be available closer to home.

Another pathway suggested by some women was the utilization of social media platforms such as Facebook and TikTok. The study found that all participants had access to smartphones and were active on various social media platforms, with Facebook being the most commonly used. Despite frequently engaging with short-form health content on platforms like Facebook and TikTok, women explicitly questioned the medical credibility of these videos and expressed trust only in verified doctors. However, they acknowledged that these platforms could be useful for general awareness-raising, particularly for sharing basic information on breast cancer symptoms, risk factors, and screening procedures. While social media may not directly influence screening participation, exposure to breast cancer-related content may help to normalize discussions around breast health to some extent, as women may perceive that something visible

in the public digital space is less taboo or less “hidden” than previously assumed. However, the need for trusted information sources remains central, highlighting a degree of media literacy among participants. Women emphasized that qualified healthcare providers should produce such content in the form of short videos or written posts, as they were concerned about the risk of receiving inaccurate information on such a sensitive topic. This aligns with previous studies that conceptualize social media primarily as a channel for disseminating medical information (Al-Dubai et al., 2012; Boulos & Ghali, 2013; Hasi et al., 2025; Iheanacho et al., 2013; Sama et al., 2017; Sarker et al., 2022).

Finally, this study also illustrates the role of digital communication in shaping attitudes towards screening procedures. The findings show that none of the women was familiar with what the screening process actually involves, meaning the clinical setting remains largely unknown to them. Using social media as a visual tool to introduce women to the screening procedure could help them mentally process the procedure and reduce their fear of the unknown, which, in turn, may positively influence their attitudes towards cancer screening. By visually familiarizing themselves with hospital environments and medical equipment through their screens, women may experience reduced anxiety about clinical settings. In this way, social media does not serve as a substitute for accurate medical information, but rather as a supportive exposure tool that can reduce apprehension and make screening environments feel less intimidating. This highlights a nuanced role for digital media in shaping more positive attitudes towards medical care.

Limitations

While this qualitative study provides critical, deeply contextualized insights into the socio-cultural and communicative factors influencing rural Bangladeshi women, it is essential to acknowledge its methodological and structural limitations.

First, the qualitative, exploratory nature of this research inherently limits the broad statistical generalizability of the findings. The study utilized a snowball sampling method, recruiting a small sample size of ten women exclusively from the villages within Senbag Upazila. While this focused sample size provided the necessary "information power" (Malterud et al., 2016) to uncover deep thematic narratives, these ten voices cannot statistically represent the millions of rural women across Bangladesh. Also, while snowball sampling was particularly helpful in ensuring the women's voluntary participation in this study, it also limited participation among women who did not have any mutual contacts to learn about the study or interview opportunity. This aspect also imposed limitations on including other women outside these participants' networks. Variations in local healthcare infrastructure, regional cultural nuances, and varying degrees of NGO presence across other districts might yield slightly different attitudes and behavioral controls.

Secondly, a significant limitation lies within the language and translation process. The interviews were conducted entirely in Bengali to ensure participants could express their lived experiences naturally and comfortably. However, as the data analysis and this final manuscript are presented in English, there is an unavoidable possibility of losing subtle cultural and emotional nuances. Bengali is a deeply expressive language, and the emotional weight behind specific words describing shame, modesty, taboo, and the cultural silence does not always have direct, perfect English equivalents. Although a rigorous manual transcription and translation-checking process was employed, the need to select the "closest" English phrasing may have limited some of the culturally specific resonance of the participants' original narratives.

Thirdly, in alignment with qualitative data validation strategies (Creswell & Miller, 2000), the potential for researcher bias must be transparently addressed. The primary researcher

grew up in the same rural environment where the study was conducted. While this shared background served as a resource in building trust and allowing the participants to open up about highly sensitive, taboo subjects regarding their breast health and experiences that they face in their in-laws' houses, it also introduces a lens of subjectivity. The researcher's own past experiences and inherent understandings of the local culture could have subtly influenced the flow of the interviews (Merriam, 1998). Although reflexive practices and the extensive use of direct participant quotes were utilized to ground the analysis strictly in the data, the interpretive lens of the researcher might be influenced in this qualitative inquiry.

Finally, the study's reliance on self-reported, individual data means the findings are based entirely on the participants' perceptions of their reality. When the women discuss the restrictive behaviors of their husbands or the judgmental policing of their mothers-in-law or other female neighbors, they are sharing their personal interpretations of those communicative interactions. This study did not cross-examine these claims by interviewing the family members themselves. Therefore, the data reflect the reality of the healthcare landscape solely from the perspective of the rural female patient.

Recommendations for Future Research

The findings of this study open several critical, necessary pathways for future academic inquiry and public health strategy. Because this qualitative exploration has identified the specific communication gaps and cultural stigmas that influence screening intentions in rural Bangladesh, future research should build on this foundation to develop targeted interventions.

Quantitative Validation of Discovered Factors

Now that this study has identified the deep-rooted factors influencing rural women, such as the strict requirement of spousal permission, the communicative taboo of the word "breast,"

and the specific misinformation linking breastfeeding to cancer or other symptoms, future studies can develop a localized quantitative survey instrument based precisely on these findings. By surveying a nationally representative sample of rural Bangladeshi women, researchers can use advanced statistical modeling to determine exactly how much variance in screening intention is predicted by these newly identified communication barriers.

Incorporating the Voices of Familial Gatekeepers

A recurring, dominant theme was the absolute lack of communicative agency among married women, whose health decisions are majorly dictated by their husbands and mothers-in-law. Therefore, future research can focus on including these familial gatekeepers. Studies investigating the knowledge, attitudes, and subjective norms of rural Bangladeshi men regarding their wives' breast health are desperately needed. Understanding exactly how husbands and mothers-in-law view the stigma around female bodily and social norms about autonomy over women's healthcare decisions is crucial. If communication interventions are to be successful, they must systematically target the individuals who hold the actual decision-making power within the rural household.

Evaluating Community-Based Health Communication Interventions

The participants explicitly requested that health information be brought directly into their homes via trusted female health workers, utilizing the existing "courtyard meeting" practice in rural villages. Future public health research should design, implement, and rigorously evaluate outreach programs that integrate breast cancer education into these localized settings. Researchers could measure the pre- and post-intervention screening intentions of women participating in these continuous, community-based dialogues to validate their effectiveness over time in breaking the cultural silence. Furthermore, given the high smartphone utilization, future

studies should explore the efficacy of targeted digital health campaigns, investigating how verified, doctor-led social media content can effectively improve the physical screening process and combat local myths.

Healthcare Provider Perspectives and Systemic Readiness

Finally, future research must examine the effect of patient-provider communication. The women in this study reported a profound lack of trust in local Upazila Health Complexes and stated that doctors rarely initiate conversations about breast health. Studies interviewing rural healthcare providers are needed to understand the systemic communication barriers they face on the ground. Are doctors themselves hesitant to tap into culturally taboo subjects with female patients? Do they lack adequate female staffing to conduct proper CBEs, mammography, or other screening? Identifying and addressing these aspects within the local clinics is absolutely essential to ensure they are culturally competent and able to provide safe, respectful care as demand for screening increases.

Conclusion

Breast cancer remains a devastating and rapidly accelerating global health crisis. In lower-middle-income countries like Bangladesh, the rising incidence and high mortality rates are deeply compounded by severe socio-economic constraints and rigid cultural disparities. To combat increasing BC-related death in Bangladesh, preventative screening is necessary for early detection; however, the mere physical existence of a clinic does not guarantee its utilization. As this study has comprehensively shown, building a healthcare facility is only the first, and perhaps easiest, step in a much longer journey toward effective screening participation. The true challenge lies in bridging the massive, silent communication gap between the clinical availability of a service and the complex, deeply stigmatized lived realities of the women it is meant to serve.

Guided by the Theory of Planned Behavior (Ajzen, 1991), this qualitative study answered a pressing question: How do rural Bangladeshi women form their intention to participate in breast cancer screening when they have some awareness about cancer screening services? By prioritizing the authentic voices of ten women from Senbag Upazila, the findings successfully revealed a profound and challenging narrative that goes beyond the superficial quantitative measures. The consistently low participation rates reported in recent literature (Azim et al., 2025) are not mainly the result of a simple lack of awareness, nor are they a reflection of women carelessly neglecting their own health. Instead, a rural woman's intention to engage in preventative screening is systematically dismantled by a combination of negative attitudes formed by cultural stigma, near-total absence of social and familial support enforced by a communicative taboo, and a lack of control over women's own health decisions.

The rural women in Bangladesh are forced to navigate a daily environment where they have to be constantly aware of the femininity of their bodies and face the intergenerational enforcement of modesty by other women within the joint family system. In this culture of silence, normal female health issues are hidden, and the very concept of asymptomatic, preventative screening for breasts is entirely foreign. Consequently, breast cancer is viewed not as a preventable disease to be actively monitored, but as a silent terror, often falsely linked to the normal act of breastfeeding, that is only addressed when the physical pain becomes too severe to hide from the household.

Furthermore, the systemic barriers these women face are immense and highly restrictive. Without personal financial independence, the need to successfully communicate a need for spousal permission to cover the cost of screening, especially when no visible symptoms are present, becomes a major barrier. Combined with the heavy burden of domestic labor, the

inability to travel without an escort, and the absolute personal and cultural demand for female healthcare workers, the physical act of attending a screening requires a coordination of effort, permission, time, and money among many other factors that most women lack.

Despite the complex landscape of systemic and cultural barriers, the overarching message of this study is one of profound hope. The women's perspectives showed that the reluctance to screen is not an unchangeable trait of rural women. When participants in this study were simply given a safe, non-judgmental space to talk about their breast health and learn about the necessity of having preventative cancer screening that can help them to live a safer life from a cancer standpoint, women were encouraged and ready to navigate all the barriers that they would face. They expressed an immediate, empowered desire to seek care, proving that, given proper health information on deadly disease prevention through a comfortable communication method, rural women are highly motivated to take control of their health.

Overall, this study clearly illustrated the vital importance of culturally safe health communication in rural Bangladesh. To turn the tide against breast cancer mortality in Bangladesh, public health initiatives must move beyond passive screening models and generic hospital infrastructure towards health communication-centered intervention strategies. There must be an active effort to dismantle the taboo by bringing verified, doctor-backed information directly into the safe spaces of rural women through continuous dialogues led by female health workers. Building a clinic is important, but a clinic cannot cure deep-rooted cultural stigma around female health. Until culturally appropriate health communication effort is not introduced to dismantle the culture of silence, rural women will continue to suffer. By listening to their voices, validating their concerns, and respecting their cultural boundaries, breast health and preventative care can move beyond a shameful secret into a normal, life-saving conversation.

References

- Abuidris, D. O., Elsheikh, A., Ali, M., Musa, H., Elgaili, E., Ahmed, A. O., ... & Mohammed, S. I. (2013). Breast-cancer screening with trained volunteers in a rural area of Sudan: a pilot study. *The lancet oncology*, 14(4), 363-370. [https://doi.org/10.1016/S1470-2045\(12\)70583-1](https://doi.org/10.1016/S1470-2045(12)70583-1)
- Ahmed, K., Asaduzzaman, S., Bashar, M. I., Hossain, G., & Bhuiyan, T. (2015). Association assessment among risk factors and breast cancer in a low income country: Bangladesh. *Asian Pacific Journal of Cancer Prevention*, 16(17), 7507-7512. <http://dx.doi.org/10.7314/APJCP.2015.16.17.7507>
- Ahmed, S. M., Evans, T. G., Standing, H., & Mahmud, S. (2013). Harnessing pluralism for better health in Bangladesh. *The Lancet*, 382(9906), 1746-1755. [https://doi.org/10.1016/S0140-6736\(13\)62147-9](https://doi.org/10.1016/S0140-6736(13)62147-9)
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Aktar, S. (2012). Health Care Seeking Behavior for Safe Motherhood: Findings from Rural Bangladesh. *Bangladesh e-Journal of sociology*, 9(2).
- Alam, N. E., Islam, M. S., Ullah, H., Molla, M. T., Shifat, S. K., Akter, S., ... & Mohiuddin, A. K. M. (2021). Evaluation of knowledge, awareness and attitudes towards breast cancer risk factors and early detection among females in Bangladesh: A hospital based cross-sectional study. *PLoS One*, 16(9), e0257271. <https://doi.org/10.1371/journal.pone.0257271>
- Alam, R., Akter, S., Mohammad, T., Rini, R., Mariyam, M., Priti, A. A., ... & Sikder, M. T. (2026). Cultural Beliefs and Perceptions of Breast Cancer among Adolescent Girls in Semi-Urban Bangladesh: A School-Based Study. <https://doi.org/10.21203/rs.3.rs-8628237/v1>
- Alamer, A. S. (2024). Behavior change theories and models within health belief model research: a five-decade holistic bibliometric analysis. *Cureus*, 16(6). <https://doi.org/10.7759/cureus.63143>
- Al-Dubai, S. A. R., Ganasegeran, K., Alabsi, A. M., Manaf, M. R. A., Ijaz, S., & Kassim, S. (2012). Exploration of barriers to breast-self examination among urban women in Shah Alam, Malaysia: a cross sectional study. *Asian Pacific Journal of Cancer Prevention*, 13(4), 1627-1632. <https://doi.org/10.7314/apjcp.2012.13.4.1627>
- Alyafei, A., & Easton-Carr, R. (2024). The health belief model of behavior change. *StatPearls*.

- Amin, M. N., Uddin, M. G., Uddin, M. N., Rahaman, M. Z., Siddiqui, S. A., Hossain, M. S., ... & Uddin, S. N. (2020). A hospital based survey to evaluate knowledge, awareness and perceived barriers regarding breast cancer screening among females in Bangladesh. *Heliyon*, 6(4). <https://doi.org/10.1016/j.heliyon.2020.e03753>
- An, J., & Vincent, C. (2022). A critique of the theory of planned behavior in the cancer screening domain. *Advances in Nursing Science*, 45(2), 179-193. <https://doi.org/10.1097/ans.0000000000000395>
- Arnold, M., Morgan, E., Rungay, H., Mafra, A., Singh, D., Laversanne, M., ... & Soerjomataram, I. (2022). Current and future burden of breast cancer: Global statistics for 2020 and 2040. *The Breast*, 66, 15-23. <https://doi.org/10.1016/j.breast.2022.08.010>
- Arsal, A. (2025, May 30). How the silence around reproductive health endangers Bangladeshi women. *The Business Standard*. <https://www.tbsnews.net/features/panorama/how-silence-around-reproductive-health-endangers-bangladeshi-women-1155456>
- Asmussen, K. J., & Creswell, J. W. (1995). Campus response to a student gunman. *The Journal of Higher Education*, 66(5), 575-591. <https://doi.org/10.1080/00221546.1995.11774799>
- Azim, M. R., Wong, E. Y. T., Rahman, M. M., Islam, M. S., Talukder, M. H., Woon, B. S. T., ... & Hamid, S. A. (2025). Knowledge, Attitudes, and Health-Seeking Behavior for Cervical, Breast, and Oral Cancers Among Women in Jashore, Bangladesh: A Cross-Sectional Study. *JCO Global Oncology*, 11, e2500304. <https://doi.org/10.1200/GO-25-00304>
- Bandura, A. (1997). *Self-efficacy: The exercise of control* (Vol. 11). Freeman.
- Bernhardt, J. M. (2004). Communication at the core of effective public health. *American journal of public health*, 94(12), 2051-2053.
- Boulos, D. N., & Ghali, R. R. (2013). Awareness of breast cancer among female students at Ain Shams University, Egypt. *Global journal of health science*, 6(1), 154. <https://doi.org/10.5539/gjhs.v6n1p154>
- Bowie, J. V., Curbow, B., Laveist, T. A., Fitzgerald, S., & Zabora, J. (2003). The theory of planned behavior and intention to repeat mammography among African-American women. *Journal of Psychosocial Oncology*, 21(4), 23-42. https://doi.org/10.1300/J077v21n04_02
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2013). Successful qualitative research: A practical guide for beginners.
- Bray, F., Laversanne, M., Sung, H., Ferlay, J., Siegel, R. L., Soerjomataram, I., & Jemal, A. (2024). Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality

- worldwide for 36 cancers in 185 countries. *CA: a cancer journal for clinicians*, 74(3), 229-263. <https://doi.org/10.3322/caac.21834>
- Burke, N. J., Bird, J. A., Clark, M. A., Rakowski, W., Guerra, C., Barker, J. C., & Pasick, R. J. (2009). Social and cultural meanings of self-efficacy. *Health Education & Behavior*, 36(5_suppl), 111S-128S. <https://doi.org/10.1177/1090198109338916>
- Campbell, C., & Scott, K. (2012). Community health and social mobilization. *The handbook of global health communication*, 177-193.
- Centers for Disease Control and Prevention. (2001). *Health COMM key: Unlocking the power of health communication research*. <https://www.cdc.gov/od/oc/hcomm>
- Centers for Disease Control and Prevention. (2011a). *Gateway to health communication & social marketing practice: Health communication basics*.
- Chin, J. H., & Mansori, S. (2019). Theory of planned behaviour and health belief model: Females' intention on breast cancer screening. *Cogent Psychology*, 6(1), 1647927. <https://doi.org/10.1080/23311908.2019.1647927>
- Chintapally, N., Nuwayhid, M., Arroju, V., Muddu, V. K., Gao, P., Reddy, B. Y., & Sunkavalli, C. (2023). State of cancer care in India and opportunities for innovation. *Future Oncology*, 19(39), 2593-2606. <https://doi.org/10.2217/fon-2023-0047>
- Chowdhury, M. Z. I., Mubin, N., Mohib, T., Chowdhury, N., Chowdhury, T. F., Laskar, A. M. H., ... & Turin, T. C. (2024). Cancer screening research in Bangladesh: Insights from a scoping review. *Global public health*, 19(1), 2351186. <https://doi.org/10.1080/17441692.2024.2351186>
- Collaborative Group on Hormonal Factors in Breast Cancer. (2002). Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50 302 women with breast cancer and 96 973 women without the disease. *The lancet*, 360(9328), 187-195. [https://doi.org/10.1016/S0140-6736\(02\)09454-0](https://doi.org/10.1016/S0140-6736(02)09454-0)
- Cooke, R., & French, D. P. (2008). How well do the theory of reasoned action and theory of planned behaviour predict intentions and attendance at screening programmes? A meta-analysis. *Psychology and health*, 23(7), 745-765. <https://doi.org/10.1080/08870440701544437>
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, 39(3), 124-130. https://doi.org/10.1207/s15430421tip3903_2
- Dhakal, R., Adhikari, C., Karki, P., Neupane, N., Bhandari, P., Gurung, A., ... & Subedi, G. (2023). Attitude sustains longer than subjective norm and perceived behavioral control: results of breast cancer screening educational intervention. *Plos one*, 18(2), e0281184. <https://doi.org/10.1371/journal.pone.0281184>

- Dsouza, J. P., Broucke, S. V. D., Pattanshetty, S., & Dhoore, W. (2022). A comparison of behavioural models explaining cervical cancer screening uptake. *BMC women's health*, 22(1), 235. <https://doi.org/10.1186/s12905-022-01801-2>
- El Arifeen, S., Christou, A., Reichenbach, L., Osman, F. A., Azad, K., Islam, K. S., ... & Peters, D. H. (2013). Community-based approaches and partnerships: innovations in health-service delivery in Bangladesh. *The Lancet*, 382(9909), 2012-2026. [https://doi.org/10.1016/S0140-6736\(13\)62149-2](https://doi.org/10.1016/S0140-6736(13)62149-2)
- Erlandson, D. A. (1993). *Doing naturalistic inquiry: A guide to methods*. Sage.
- Feng, G. C., Lin, Z., Ou, W., Su, X., & Yan, Q. (2021). A model-based meta-analysis of willingness to participate in cancer screening. *International Journal of Environmental Research and Public Health*, 18(5), 2580. <https://doi.org/10.3390/ijerph18052580>
- Freimuth, V., Linnan, H. W., & Potter, P. (2000). Communicating the threat of emerging infections to the public. *Emerging Infectious Diseases*, 6(4), 337–347. <https://doi.org/10.3201/eid0604.000403>
- Fu, M., Peng, Z., Wu, M., Lv, D., Li, Y., & Lyu, S. (2025). Current and future burden of breast cancer in Asia: A GLOBOCAN data analysis for 2022 and 2050. *The Breast*, 79, 103835. <https://doi.org/10.1016/j.breast.2024.103835>
- Gallups, S. F., Demirci, J., Nilsen, M. L., Burke, J., Bender, C., & Rosenzweig, M. Q. (2023). Stakeholder perspectives on six identified interpersonal communication components of patient navigation in breast cancer care. *Supportive Care in Cancer*, 31(12), 688. <https://doi.org/10.1007/s00520-023-08121-7>
- Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2015). *Health behavior: Theory, research, and practice*. John Wiley & Sons.
- Griva, F., Anagnostopoulos, F., & Madoglou, S. (2010). Mammography screening and the theory of planned behavior: suggestions toward an extended model of prediction. *Women & Health*, 49(8), 662-681. <https://doi.org/10.1080/03630240903496010>
- Griva, F., Anagnostopoulos, F., Gourounti, K., Kolokotroni, P., & Koutrouli, N. (2013). Mammography screening within the context of the theory of planned behavior: The role of personality traits and personal factors. *International Journal of Psychological Studies*, 5(3), 98-107. <https://doi.org/10.5539/IJPS.V5N3P98>
- Gupta, A., Shridhar, K., & Dhillon, P. K. (2015). A review of breast cancer awareness among women in India: Cancer literate or awareness deficit?. *European Journal of Cancer*, 51(14), 2058-2066. <https://doi.org/10.1016/j.ejca.2015.07.008>
- Hamid, F., & Roy, T. (2025). Unveiling sociocultural barriers to breast cancer awareness among the South Asian population: Case study of Bangladesh and West Bengal, India. *JMIR Human Factors*, 12(1), e53969. <https://doi.org/10.2196/53969>

- Hasi, S. N., Tabassum, S., Arny, R. T., Pervin, M. D., Hossain, M. G., Hasan, F., & Kibria, M. K. (2025). Breast Cancer Knowledge and Self-Examination Practices Among University Female Students in Dinajpur, Bangladesh: A Cross-Sectional Study. *Health Science Reports*, 8(7), e71048. <https://doi.org/10.1002/hsr2.71048>
- Hong, S., Lee, Y. Y., Lee, J., Kim, Y., Choi, K. S., Jun, J. K., & Suh, M. (2021). Trends in cancer screening rates among Korean men and women: results of the Korean National Cancer Screening Survey, 2004-2018. *Cancer Res Treat*, 53(2), 330-338. <https://doi.org/10.4143/crt.2020.263>
- Hoq, M. I., Jahan, S., Mahmud, M. H., Hasan, M. M. U., & Jakaria, M. (2024). Breast cancer screening awareness, practice, and perceived barriers: a community-based cross-sectional study among women in south-eastern Bangladesh. *Health Science Reports*, 7(1), e1799. <https://doi.org/10.1002/hsr2.1799>
- Huang, Y., & Shen, F. (2016). Effects of cultural tailoring on persuasion in cancer communication: A meta-analysis. *Journal of Communication*, 66(4), 694-715. <https://doi.org/10.1111/jcom.12243>
- Huq, M. S., Acharya, S. C., Poudyal, S., Sharma, S., Silwal, S. R., Sapkota, S., ... & Wijesooriya, K. (2024). Cancer care and outreach in the South Asian Association for Regional Cooperation (SAARC) region: overcoming barriers and addressing challenges. *The Lancet Oncology*, 25(12), e650-e662. [https://doi.org/10.1016/S1470-2045\(24\)00514-X](https://doi.org/10.1016/S1470-2045(24)00514-X)
- Hussain, S. A., & Sullivan, R. (2013). Cancer control in Bangladesh. *Japanese journal of clinical oncology*, 43(12), 1159-1169. <https://doi.org/10.1093/jjco/hyt140>
- Iheanacho, P., Ndu, A., & Emenike, A. D. (2013). Awareness of breast cancer risk factors and practice of breast self examination among female undergraduates in university of Nigeria Enugu campus. *Open Journal of Nursing*, 3(147-152), 6. <http://dx.doi.org/10.4236/ojn.2013.31019>
- Institute of Medicine. (2003b). *Who will keep the public healthy?* The National Academies Press.
- Islam, M. R. (2023). Disparities in Cancer Care: A Bangladeshi Perspective. Huntington, NY: ASCO Post. <https://ascopost.com/issues/may-25-2023/disparities-in-cancer-care-a-bangladeshi-perspective/>
- Islam, R. M., Bell, R. J., Billah, B., Hossain, M. B., & Davis, S. R. (2016). Awareness of breast cancer and barriers to breast screening uptake in Bangladesh: A population based survey. *Maturitas*, 84, 68-74. <https://doi.org/10.1016/j.maturitas.2015.11.002>
- Kamyab, A., Mohammadkhah, F., Asadi, S., Ghalehgholab, F., & Khani Jeihooni, A. (2024). The effect of an educational intervention on breast cancer screening of rural women: application of the theory of planned behavior. *Cancer Control*, 31, 10732748241266788. <https://doi.org/10.1177/10732748241266788>

- Kebede, N., Mekonen, A. M., Mihiretu, M. M., Tsega, Y., Addisu, E., Cherie, N., ... & Ayele, F. Y. (2023). The efficacy of theory of planned behavior to predict breast self-examination among women: systematic review and meta-Analysis. *Health psychology and behavioral medicine*, 11(1), 2275673. <https://doi.org/10.1080/21642850.2023.2275673>
- Keshavarzi, A., Asadi, S., Asadollahi, A., Mohammadkhah, F., & Khani Jeihooni, A. (2022). Tendency to breast cancer screening among rural women in Southern Iran: a structural equation modeling (SEM) analysis of theory of planned behavior. *Breast cancer: basic and clinical research*, 16, 11782234221121001. <https://doi-org.er.lib.k-state.edu/10.1177/11782234221121001>
- Khani Jeihooni, A., Moayedi, Z. S., Momenabadi, V., Ghalegolab, F., & Afzali Harsini, P. (2023). Effect of educational intervention based on theory of planned behavior (TPB) on doing Breast self-examination in a sample of Iranian women. *Breast cancer: basic and clinical research*, 17, 11782234221145417. <https://doi.org/10.1177/11782234221145417>
- Kim, J., Harper, A., McCormack, V., Sung, H., Houssami, N., Morgan, E., ... & Fidler-Benaoudia, M. M. (2025). Global patterns and trends in breast cancer incidence and mortality across 185 countries. *Nature Medicine*, 1-9. <https://doi.org/10.1038/s41591-025-03502-3>
- Kim, R. B., Park, K. S., Hong, D. Y., Lee, C. H., & Kim, J. R. (2010). Factors associated with cancer screening intention in eligible persons for national cancer screening program. *Journal of Preventive Medicine and Public Health= Yebang Uihakhoe chi*, 43(1), 62-72. <https://doi.org/10.3961/jpmph.2010.43.1.62>
- Kiyang, L. N., Labrecque, M., Doualla-Bell, F., Turcotte, S., Farley, C., Cionti Bas, M., ... & Légaré, F. (2015). Family physicians' intention to support women in making informed decisions about breast cancer screening with mammography: a cross-sectional survey. *BMC research notes*, 8(1), 663. <https://doi.org/10.1186/s13104-015-1608-8>
- Kreps, G. L., & Sivaram, R. (2008). Strategic health communication across the continuum of breast cancer care in limited-resource countries. *Cancer*, 113(S8), 2331-2337. <https://doi.org/10.1002/cncr.23832>
- Kreps, G. L., Query, J. L., & Bonaguro, E. W. (2007). The interdisciplinary study of health communication and its relationship to communication science. *Beyond these walls: Readings in health communication*, 2-13.
- Krok-Schoen, J. L., Oliveri, J. M., & Paskett, E. D. (2016). Cancer care delivery and women's health: the role of patient navigation. *Frontiers in Oncology*, 6, 2. <https://doi.org/10.3389/fonc.2016.00002>
- Kundu, S., Rahman, M. H., Chowdhury, S. S. A., Hagan Jr, J. E., Dey, S. R., Dey, R., ... & Ahmed, F. (2024). Spatial Variation and Predictors of Women's Sole Autonomy in Healthcare Decision-Making in Bangladesh: A Spatial and Multilevel Analysis. In *Healthcare* (Vol. 12, No. 24, p. 2494). MDPI. <https://doi.org/10.3390/healthcare12242494>

- Lau, J., Shrestha, P., Ng, J. S., Wong, G. J., Legido-Quigley, H., & Tan, K. K. (2022). Qualitative factors influencing breast and cervical cancer screening in women: A scoping review. *Preventive medicine reports*, 27, 101816. <https://doi.org/10.1016/j.pmedr.2022.101816>
- Leong, S. P., Shen, Z. Z., Liu, T. J., Agarwal, G., Tajima, T., Paik, N. S., ... & Foulkes, W. D. (2010). Is breast cancer the same disease in Asian and Western countries?. *World journal of surgery*, 34(10), 2308-2324. <https://doi.org/10.1007/s00268-010-0683-1>
- Li, L., & Li, J. (2021). An investigation of factors influencing Chinese young women's intention for mammography screening. *SAGE Open*, 11(3), 21582440211032164. <https://doi.org/10.1177/21582440211032164>
- Lim, Y. X., Lim, Z. L., Ho, P. J., & Li, J. (2022). Breast cancer in Asia: incidence, mortality, early detection, mammography programs, and risk-based screening initiatives. *Cancers*, 14(17), 4218. <https://doi.org/10.3390/cancers14174218>
- Maibach, E., & Holtgrave, D. R. (1995). Advances in public health communication. *Annual review of public health*, 16, 219-238. <https://doi.org/10.1146/annurev.pu.16.050195.001251>
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: guided by information power. *Qualitative health research*, 26(13), 1753-1760. <https://doi.org/10.1177/1049732315617444>
- Marshall, D. T., & Naff, D. B. (2024). The ethics of using artificial intelligence in qualitative research. *Journal of Empirical Research on Human Research Ethics*, 19(3), 92-102. <https://doi.org/10.1177/15562646241262659>
- McCracken, D. G. (1988). *The long interview*. Newbury Park, CA: Sage
- Merriam, S. B. (1988). Case study research in education: A qualitative approach. Jossey-Bass. <https://psycnet.apa.org/record/1989-97006-000>
- Muturi, N. W. (2005). Communication for HIV/AIDS prevention in Kenya: Social-cultural considerations. *Journal of Health Communication*, 10(1), 77-98. <https://doi.org/10.1080/10810730590904607>
- Ngan, T. T., Nguyen, N. T., Van Minh, H., Donnelly, M., & O'Neill, C. (2020). Effectiveness of clinical breast examination as a 'stand-alone' screening modality: an overview of systematic reviews. *BMC cancer*, 20(1), 1070. <https://doi.org/10.1186/s12885-020-07521-w>
- Nickerson, C. (2023). Theory of reasoned action (Fishbein and Ajzen, 1975). *Simply Psychology*, 1-11.
- Noman, S., Shahar, H. K., Abdul Rahman, H., Ismail, S., Abdulwahid Al-Jaberi, M., & Azzani, M. (2021). The effectiveness of educational interventions on breast cancer screening

- uptake, knowledge, and beliefs among women: a systematic review. *International Journal of Environmental Research and Public Health*, 18(1), 263.
<https://doi.org/10.3390/ijerph18010263>
- Ohuchi, N., Suzuki, A., Sobue, T., Kawai, M., Yamamoto, S., Zheng, Y. F., ... & Ishida, T. (2016). Sensitivity and specificity of mammography and adjunctive ultrasonography to screen for breast cancer in the Japan Strategic Anti-cancer Randomized Trial (J-START): a randomised controlled trial. *The Lancet*, 387(10016), 341-348.
[https://doi.org/10.1016/s0140-6736\(15\)00774-6](https://doi.org/10.1016/s0140-6736(15)00774-6)
- Pearson, J. C., & Nelson, P. E. (1991). *Understanding and sharing* (5th ed.). Wm. C. Brown.
- Plescica, M., & White, M. C. (2013). The National Prevention Strategy and breast cancer screening: scientific evidence for public health action. *American Journal of Public Health*, 103(9), 1545-1548. <https://doi.org/10.2105/AJPH.2013.301305>
- Raisa, A., Roberto, A. J., Love, R. R., Steiness, H. L. S., Salim, R., & Krieger, J. L. (2023). Pot song as a novel cancer communication intervention: lessons learned from developing, implementing, and evaluating a culturally grounded intervention for breast cancer education in rural Bangladesh. *Journal of Cancer Education*, 38(1), 260-273.
<https://doi.org/10.1007/s13187-021-02111-1>
- Ritchie, D., Van den Broucke, S., & Van Hal, G. (2021). The health belief model and theory of planned behavior applied to mammography screening: a systematic review and meta-analysis. *Public Health Nursing*, 38(3), 482-492. <https://doi.org/10.1111/phn.12842>
- Roncancio, A. M., Ward, K. K., & Fernandez, M. E. (2013). Understanding cervical cancer screening intentions among Latinas using an expanded theory of planned behavior model. *Behavioral Medicine*, 39(3), 66-72.
<https://doi.org/10.1080/08964289.2013.799452>
- Sama, C. B., Dzekem, B., Kehbila, J., Ekabe, C. J., Vofo, B., Abua, N. L., ... & Angwafo III, F. (2017). Awareness of breast cancer and breast self-examination among female undergraduate students in a higher teachers training college in Cameroon. *The Pan African Medical Journal*, 28, 91. <https://doi.org/10.11604/pamj.2017.28.91.10986>
- Sapkota, D., Parajuli, P., & Kafle, T. K. (2016). Effectiveness of educational intervention programme on knowledge regarding breast self examination among higher secondary school girls of Biratnagar. *Birat Journal of Health Sciences*, 1(1), 13-19.
[https://doi.org/10.1016/S1470-2045\(12\)70583-1](https://doi.org/10.1016/S1470-2045(12)70583-1)
- Sarker, R., Islam, M. S., Moonajilin, M. S., Rahman, M., Gesesew, H. A., & Ward, P. R. (2022). Knowledge of breast cancer and breast self-examination practices and its barriers among university female students in Bangladesh: Findings from a cross-sectional study. *Plos one*, 17(6), e0270417. <https://doi.org/10.1371/journal.pone.0270417>
- Sarker, S. K., Rahman, A., Biswas, A., Saha, A. K., Alif, M. M. H., Roy, S. S., Babul, M. A. I., Bhandari, K., Shorna, F. A. N., Khan, M. S. I., Hossain, S., & Biswas, A. (2018).

Directorate General of Health Services. Government of the people's republic of Bangladesh, Ministry of health and family welfare: Health bulletin 2018. In Health bulletin 2018. People's Republic of Bangladesh.

Schiavo, R. (2013). *Health communication: From theory to practice*. John Wiley & Sons.

Shamsi, T. (2021). Burden of breast cancer in Bangladesh-current and future and financing treatment with link to willingness to pay. *Int J Community Med Public Heal*, 8(11), 5525. <https://dx.doi.org/10.18203/2394-6040.ijcmph20214295>

Son, H. K., Kam, S., Park, K. S., Kim, J. R., Kim, R. B., & Park, S. K. (2009). The factors associated with changes in the stage of breast cancer screening behavior among the woman who are eligible for the Korean National Cancer Screening Program. *Journal of Preventive Medicine and Public Health*, 42(2), 109-116. <https://doi.org/10.3961/jpmph.2009.42.2.109>

Song, S. Y., Lee, Y. Y., Shin, H. Y., Park, B., Suh, M., Choi, K. S., & Jun, J. K. (2022). Trends in breast cancer screening rates among Korean women: results from the Korean National Cancer Screening Survey, 2005-2020. *Epidemiology and Health*, 44, e2022111. <https://doi.org/10.4178/epih.e2022111>

Spencer, L., Pagell, F., & Adams, T. (2005). Applying the transtheoretical model to cancer screening behavior. *American Journal of Health Behavior*, 29(1), 36-56. <https://doi.org/10.5993/ajhb.29.1.4>

Srinath, A., van Merode, F., Rao, S. V., & Pavlova, M. (2023). Barriers to cervical cancer and breast cancer screening uptake in low-and middle-income countries: a systematic review. *Health policy and planning*, 38(4), 509-527. <https://doi.org/10.1093/heapol/czac104>

Steiness, H. S., Villegas-Gold, M., Parveen, H., Ferdousy, T., & Ginsburg, O. (2018). Barriers to care for women with breast cancer symptoms in rural Bangladesh. *Health Care for Women International*, 39(5), 536-554. <https://doi.org/10.1080/07399332.2018.1446958>

Story, H. L., Love, R. R., Salim, R., Roberto, A. J., Krieger, J. L., & Ginsburg, O. M. (2012). Improving outcomes from breast cancer in a low-income country: lessons from Bangladesh. *International journal of breast cancer*, 2012(1), 423562. <https://doi.org/10.1155/2012/423562>

Strong, C., & Liang, W. (2009). Relationships between decisional balance and stage of adopting mammography and Pap testing among Chinese American women. *Cancer Epidemiology*, 33(5), 374-380. <https://doi.org/10.1016/j.canep.2009.10.002>

Sun, Y., Yuan, J., Liu, W., Qin, B., Hu, Z., Li, J., & He, Y. (2022). Predicting rural women's breast cancer screening intention in China: a PLS-SEM approach based on the theory of planned behavior. *Frontiers in public health*, 10, 858788. <https://doi.org/10.3389/fpubh.2022.858788>

- Tesfaw, A., Alebachew, W., & Tiruneh, M. (2020). Why women with breast cancer presented late to health care facility in North-west Ethiopia? A qualitative study. *PLoS One*, 15(12), e0243551. <https://doi.org/10.1371/journal.pone.0243551>
- Tolma, E. L., Reininger, B. M., Evans, A., & Ureda, J. (2006). Examining the theory of planned behavior and the construct of self-efficacy to predict mammography intention. *Health Education & Behavior*, 33(2), 233-251. <https://doi-org.er.lib.k-state.edu/10.1177/1090198105277393>
- Trauth, J. M., Ling, B. S., Weissfeld, J. L., Schoen, R. E., & Hayran, M. (2003). Using the transtheoretical model to stage screening behavior for colorectal cancer. *Health education & behavior*, 30(3), 322-336. <https://doi.org/10.1177/1090198103030003007>
- U.S. Department of Health and Human Services. (2012b). *Health communication and health information technology*. Healthy People 2020. <https://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=18>
- Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *The Lancet*, 376(9748), 1261-1271. [https://doi.org/10.1016/S0140-6736\(10\)60809-4](https://doi.org/10.1016/S0140-6736(10)60809-4)
- Wang, X., Chen, D., Xie, T., & Zhang, W. (2019). Predicting women's intentions to screen for breast cancer based on the health belief model and the theory of planned behavior. *Journal of Obstetrics and Gynaecology Research*, 45(12), 2440-2451. <https://doi.org/10.1111/jog.14109>
- World Health Organization. (2003). *Mobilizing for action: Communication-for-behavioural-impact (COMBI)*. The Communication Initiative. <https://www.cominit.com/combi/content/mobilizing-action-communication-behavioural-impact-combi>
- Wu, T. Y., Liu, Y. L., & Chung, S. (2012). Improving breast cancer outcomes among women in China: practices, knowledge, and attitudes related to breast cancer screening. *International journal of breast cancer*, 2012(1), 921607. <https://doi.org/10.1155/2012/921607>
- Yaya, S., Bishwajit, G., Ekholuenetale, M., & Shah, V. (2017). Awareness and utilization of community clinic services among women in rural areas in Bangladesh: a cross-sectional study. *PloS one*, 12(10), e0187303. <https://doi.org/10.1371/journal.pone.0187303>
- Zhao, Y., Zhang, Z., He, Y., Gu, Z., Yang, F., Hu, Z., & He, Y. (2025). Determinants of primary care physicians' intention to provide Breast cancer screening services for rural women: a structural equation model based on the theory of planned behavior. *Frontiers in Public Health*, 13, 1674081. <https://doi.org/10.3389/fpubh.2025.1674081>
- Zheng, D., Sriyuktasuth, A., & Lekdamrongkul, P. (2024). Comprehensive Analysis of Theoretical Models and Frameworks for Investigating Determinants of Breast Cancer

Screening Participation: A Scoping Review. *medRxiv*, 2024-09.
<https://doi.org/10.1101/2024.09.23.24314256>

Appendix A - IRB Approval Letter



Office of Research Integrity,
Compliance and Security

TO: Sean Eddington
AQ Miller School of Media and Communication
Manhattan, KS 66506
Proposal Number IRB-13462

FROM: Lisa Rubin, Chair
Committee on Research Involving Human Subjects

DATE: 01/26/2026

RE: Approval of Proposal Entitled, "Understanding Rural Women's Intention toward Breast Cancer Screening: A qualitative study using the Theory of Planned Behavior in Bangladesh."

The Committee on Research Involving Human Subjects has reviewed your proposal and has granted full approval. This proposal is **approved for three years from the date of this correspondence.**

APPROVAL DATE: 01/26/2026

EXPIRATION DATE: 01/25/2029

In giving its approval, the Committee has determined that:

No more than minimal risk to subjects

This approval applies only to the proposal currently on file as written. Any change or modification affecting human subjects must be approved by the IRB prior to implementation. All approved proposals are subject to continuing review, which may include the examination of records connected with the project. Announced post-approval monitoring may be performed during the course of this approval period by URCO staff. Injuries, unanticipated problems or adverse events involving risk to subjects or to others must be reported immediately to the Chair of the IRB and / or the URCO.

Electronically signed by Lisa Rubin on 01/26/2026 2:46 PM ET