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The Role of Men in Breast Cancer Campaigns: An In-Depth Study on How Husbands and Brothers Serve as Key Advocates for Early Screening in Patriarchal Regions

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ABSTRACT

This study aims to examine the participation of husbands/male siblings as promotional agents for early breast cancer screening in patriarchal regions and to analyze the dynamics of their involvement in women's health campaigns. This research employs a qualitative approach with a case study method conducted in Mamuju Regency during January-February 2025. The research subjects consisted of 24 respondents (12 males and 12 females) selected through purposive sampling. Data collection was carried out through in-depth interviews, focus group discussions (FGD), participatory observation, and questionnaires. Qualitative data analysis utilized thematic analysis with triangulation, while quantitative data were analyzed descriptively. The findings reveal a significant paradox between high participation motivation and low knowledge levels among males. The average knowledge of males regarding breast cancer was only 34.6% compared to 66.9% for females, with the largest gap in aspects of breast self-examination (BSE) methods (17% vs 58%) and risk factors (33% vs 75%). Nevertheless, male participation motivation was remarkably strong, driven by personal factors (loss experiences), relational factors (family affection), and religious factors (religious obligations). Male involvement was proven to increase female compliance with early detection by 75% and create a dynamic support system within households. Male participation as promotional agents for early breast cancer screening in patriarchal regions proves effective despite knowledge limitations. Caring masculinity can develop within patriarchal contexts through strategic reframing without eliminating traditional masculine identity. Effective intervention strategies include religious legitimization, familial approaches, and empowerment of accompanying roles. This research demonstrates that emotional engagement and procedural support can compensate for cognitive limitations in health advocacy, providing new insights for developing gender-sensitive health promotion programs in patriarchal societies.

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INTRODUCTION

Breast cancer has become one of the cancer types with the highest number of patients worldwide. Data shows a continuous increase in the number of patients each year, accompanied by a significant increase in mortality due to breast cancer. GLOBOCAN data from 2020 indicates that the number of patients reached 2,261,419 with 684,996 deaths worldwide (Irma, 2023; Sung et al., 2021). The breast cancer trend in Asia is more concerning with mortality rates higher than the global average. Demographic factors and unhealthy lifestyle patterns are the main causes of mortality rates in Asia (Mubarik et al., 2022). In Indonesia, new breast cancer cases reached 2,088,849 in women with 626,679 deaths in 2018 (Irma et al., 2023; Nindrea et al., 2020).

Awareness of breast cancer prevention and early detection among Indonesian women is relatively low. A study conducted by Irma et al. (2023) on the marginalized community of Makassar city showed that breast self-examination (BSE) literacy is still low, with only 7% understanding and knowing how to perform BSE. Inadequate knowledge results in delayed diagnosis and treatment (Hutajulu et al., 2022). A study in Yogyakarta revealed that delays in presentation and diagnosis of breast cancer in women require comprehensive education and awareness programs (Asiri et al., 2020). This condition is exacerbated by social and economic factors where access to quality healthcare services is often limited (Majeed & Bangash, 2024).

The pattern of breast cancer occurrence based on age and tumor characteristics varies. In Japan, the bimodal distribution pattern in breast cancer incidence increases significantly in young and elderly women (Tokutake et al., 2021). In Asian countries, the development pattern is similar to developed countries, but mortality rates are much higher. The main problem faced by developing country communities in Asia, including Indonesia, is delayed early detection and treatment (Asiri et al., 2020). To address this, support from various parties, including husbands, is needed to increase women's awareness of breast cancer prevention.

Lack of support and understanding from husbands regarding the urgency of early cancer detection becomes a problem for Indonesian women. Women in patriarchal environments feel uncomfortable discussing their breast health with men, whether husbands or siblings. This condition results in hindered open dialogue to find solutions to women's health problems. Research shows that husband involvement in supporting their wives to perform breast self-examination (BSE) is important but often overlooked (Rukmi et al., 2022; Wahyuni & Sallo, 2022). Women living in strongly patriarchal families ultimately become less concerned with BSE. This condition worsens if women have inadequate knowledge about breast cancer and independent early detection. Health education directed at men who are decision-makers in families influences women's knowledge about early cancer detection (Narsih et al., 2023). Low male understanding results in minimal support for wives to undergo routine examinations. For example, in some areas with strong patriarchal systems, breast health is still considered taboo to discuss (Toy et al., 2023). Consequently, women are prohibited from discussing breast issues with their partners. Study results show that women who receive support from partners have better awareness and knowledge (Parmin et al., 2024).

Men can serve as primary supporters to increase awareness of early breast cancer detection. Forms of male support can include information and emotional support (Muchtaridi et al., 2021). Such support makes women more comfortable performing BSE routinely. BSE socialization involving male participation provides more effective results (Kusumawaty et al., 2021). For example, education programs involving men in breast health discussions successfully increase their understanding of breast cancer and the urgency of early detection. Other forms of male support can also be implemented by encouraging women to undergo early breast cancer screening. Sociocultural barriers such as stigma, social norms, and taboos often prevent women from screening (Safitri & Martha, 2022). Male participation in health campaigns helps change perceptions and prevailing norms in society. This creates a more supportive environment for women to perform independent breast examinations (Elfemi, 2023).

Women's health issues, particularly breast cancer prevention and treatment, must face the complexity of culture, gender, and power. To design interventions that respect local norms, progressive change is required. The success of these programs depends on educational strategies that involve men without strengthening patriarchal control, prioritizing women's opinions, and addressing structural barriers to healthcare access. Previous studies mention that the cause of low male participation is triggered by cultural stigma and shame. Other studies support previous research findings stating that male support in emotional and practical forms will encourage women to perform BSE routinely. However, none of these studies specifically focus on men's roles in patriarchal areas. Therefore, this research aims to understand the participation of husbands/siblings as agents of early screening promotion in patriarchal regions.

Research Significance research examines the involvement of men (husbands/siblings) as health promotion agents in patriarchal regions. Indirectly, this research encourages male participation in women's health issues that are often hindered by traditional gender norms. This research also serves as a subversion of gender norms that challenges stereotypes that breast cancer is solely women's responsibility. Active male involvement will test whether this can be culturally accepted. Additionally, developing campaign materials that do not threaten masculinity will help develop culturally sensitive campaign strategies.

METHOD

This study adopts a qualitative approach with a case study method to understand the dynamics of male participation in breast cancer campaigns in Mamuju Regency, which has patriarchal characteristics. This approach was chosen to explore the meanings, motivations, barriers, and experiences of participants in depth, complemented by descriptive quantitative analysis through simple surveys to measure community perceptions of men's roles in health promotion. Mamuju Regency was selected as the research location because it has strong patriarchal characteristics with low levels of male participation in women's health

campaigns, as well as high breast cancer prevalence but low awareness of early screening. The research was conducted in January-February 2025 in Mamuju District.

The research subjects consist of primary groups including a minimum of 10 husbands/male siblings actively involved in breast cancer campaigns and a minimum of 10 women who have undergone or are currently undergoing breast cancer screening. Supporting groups consist of religious leaders and midwives. Data collection was conducted through four main techniques: (1) In-depth interviews with open-ended questions about motivations, cultural barriers/patriarchal norms, and impacts of participation. (2) Focus group discussions (FGDs) with themes on community perceptions and effective strategies for involving men. (3) Participant observation of campaign activities involving men. (4) Questionnaires to measure the level of knowledge and community attitudes.s

Qualitative data analysis will be conducted through transcription and coding, thematic analysis using triangulation to validate findings. Meanwhile, quantitative data will be analyzed descriptively using Excel and visualized in table form to show the distribution of questionnaire responses. With this comprehensive approach, the research is expected to reveal the dynamics of male participation in breast cancer campaigns within the patriarchal cultural context of Mamuju Regency..

RESULTS AND DISCUSSION

Results

Characteristics and Motivations of Male Participation

In-depth interview results reveal that men's motivation to participate in breast cancer campaigns is multidimensional. Personal factors serve as the primary motivator, particularly traumatic experiences of losing loved ones to breast cancer. Ahmad (45 years old, farmer) stated: "*Initially, I knew nothing about breast cancer. I thought it was a disease that had nothing to do with men. But after my neighbor died from breast cancer, I realized... As the head of the family, I must protect my family*." Similar sentiments were expressed by Burhan (38 years old, fisherman): *"My motivation is simple, sir. I love my wife... In our village, many have died because they sought treatment too late*."

The second dimension is knowledge-based motivation, particularly among highly educated respondents. Faisal (33 years old, teacher) explained: "*As an educated person, I feel responsible for providing* accurate *information to the community. Breast cancer can be prevented through early detection."* The third dimension is religious motivation, as expressed by Hasan (35 years old, mosque imam): "*In Islam, maintaining health is obligatory. Allah SWT says 'whoever saves one life, it is as if he has saved all of humanity'."*

Structural and Cultural Barriers

The research identified major barriers in the form of resistance from patriarchal norms deeply rooted in Mamuju society. Chalil (42 years old, trader) revealed: *"The biggest challenge comes from fellow men. Many say 'why interfere in women's affairs?' Some say I'm 'weak' because I care too much about my wife."* Similar barriers were experienced by Eko (51 years old, village head): *"In our village, the culture of 'men should not* interfere in women's affairs' is still strong. When I invited husbands to join breast self-examination (BSE) socialization, many refused. They said it was 'shameful' and 'inappropriate'."

Social stigmatization became the second significant barrier. Gunawan (46 years old, carpenter) recounted: "*People often say 'why should men know about women's breasts, it might lead to slander'. Yet my intentions are good, wanting to help my wife stay healthy."* This barrier was also experienced by women as a result of internalized patriarchal values. Binti (34 years old, fish seller) admitted: *"I used to be embarrassed when my husband got involved in women's health matters. I was afraid people would call him 'effeminate' or me 'bossy'."*

Effective Strategies for Male Involvement

Focus group discussion data revealed three main strategies that proved effective. First, religious legitimacy through religious leaders. Hasan stated: *"I often convey this in Friday sermons. Taking care of one's wife's health is a husband's obligation.*" This strategy was supported by Faisal: *"Education through religious leaders is very effective. When the religious teacher says this is obligatory in Islam, the community becomes more accepting."*

Second, the use of testimonials and real experiences. Gunawan explained: "*Real examples are needed. When I told the story of a neighbor who survived because of early detection, many became interested.*" Third, utilizing technology and social media for the younger generation. Indira (24 years old, student) stated: *"Social media is also effective for the younger generation. Many share experiences on Facebook or WhatsApp groups."*

Impact of Male Participation

Research results show significant positive impacts from male participation. Individual-level impacts are reflected in increased awareness and early detection behavior among women. Darmawan (29 years old, employee) recounted: *"After I became active in campaigns, my sister became more aware of breast health. She regularly performs BSE and once found a small lump. Fortunately, when checked, it wasn't cancer, just a cyst."*

Relational-level impacts are seen in changing husband-wife relationship dynamics. Citra (39 years old, teacher) revealed: *"Since my husband Chalil became active in campaigns, I've become more disciplined in BSE. He always reminds me of examination schedules and accompanies me to the doctor. As a result, I've become more confident and no longer afraid of breast examinations."* Linda (33 years old, civil servant) added: "*Mr. Lukman, my husband, even remembers my examination schedule better than I do... Thanks to his support, I now have regular mammograms every year."*

Social Change Dynamics

Participant observation revealed a gradual process of change in community social norms. At *socialization* activities in Tamalate Village Hall, a transformation from initial resistance to acceptance was observed. Initially, men sat separately and appeared uncomfortable, but after explanations from the mosque imam about religious teachings, their participation increased significantly. Similar dynamics occurred in door-to-door campaigns in Binanga Village, where the presence of men in campaign teams increased credibility and community acceptance.

Observation results at Simboro Mosque showed the effectiveness of religious approaches in changing perceptions. Male participation reached the highest level (44.4%) in this setting, and several fathers committed to *reminding* their wives about the importance of early detection. Religious legitimacy proved to be an important catalyst in the process of social norm change.

Table 1. Summary of Characteristics of Husband/Brother and Sister

Characteristics	Details
Husband/Brother	
Relationship Status	Husband (8 people)
	Brother (4 people)
Education	High School/Vocational High School (2 people)
	Diploma (2 people)
	Bachelor's Degree (6 people)
	Master's Degree (2 people)
Age Range	32-50 years
Duration of involvement	<2 tahun (4 people))
	2-4 tahun (5 people))
	> 4 tahun (3 people))
Female	
Education	Elementary School/Junior High School (2 people))
	High School/Junior High School (1 people))
	Bachelor's Degree (3 people))
	Sarjana (5 people))
	Master's Degree (1 people))
Examination status	Have undergone (7 people))

Characteristics	Details
	Currently undergoing (5 people))
Support from	Husband (9 people))
	Brother (3 people))

Source: Primary Data 2025

Male Participants

This study involved 12 male participants consisting of husbands and male siblings who actively participated in breast cancer campaigns. The participants ranged in age from 32 to 50 years with an average age of 40.5 years, representing the productive adult age group with high awareness of women's health issues. This age *distribution* indicates that men in this age range possess the emotional and social maturity to actively engage in health advocacy.

The educational aspect reveals an interesting pattern, where the majority of male participants have higher education backgrounds. Six participants (50%) hold bachelor's degrees (S1), 2 participants (16.7%) hold postgraduate degrees (S2), 2 participants (16.7%) hold diploma degrees, and 2 participants (16.7%) have secondary education (high school/vocational school). No participants were found with elementary education backgrounds, indicating that education level correlates positively with awareness and involvement in health *campaigns*. This finding aligns with the theory that higher education enhances health literacy and awareness of disease prevention importance.

Based on kinship relationships, husbands dominated participation with 8 participants (66.7%), while male siblings comprised 4 participants (33.3%). This dominance of husbands demonstrates that marital bonds create stronger moral responsibility to support partners' health. This confirms social support system theory in family contexts, where spouses have primary roles as sources of instrumental and emotional support.

The duration of involvement in campaigns varied, with relatively even distribution: 5 participants (41.7%) had been involved for 2-4 years, 4 participants (33.3%) involved for less than 2 years, and 3 participants (25%) had been involved for more than 4 years. This variation shows that men's motivation and commitment to breast cancer campaigns can be sustained long-term, with some individuals becoming long-term advocates.

Female Participants

Female participants numbered 12 with ages ranging from 30-52 years and an average age of 41.3 years. This age range is strategic as it encompasses the high-risk period for breast cancer, particularly in women over 40 years. The age distribution shows that awareness for breast cancer screening begins to increase during late reproductive years through pre-menopause.

The educational profile of female participants shows greater diversity compared to the male group. Five participants (41.7%) hold bachelor's degrees, 3 participants (25%) hold diploma degrees, 2 participants (16.7%) have elementary education, 1 participant (8.3%) holds a postgraduate degree, and 1 participant (8.3%) has secondary education. This diversity demonstrates that awareness for breast cancer screening is not limited to highly educated groups but has spread across various educational strata. This finding indicates the success of health socialization and campaigns that have reached various societal layers.

Screening status shows that the majority of participants (7 participants or 58.3%) have completed breast cancer screening, while 5 participants (41.7%) are still in the screening process. The high proportion who have completed screening indicates the effectiveness of male support in encouraging preventive health actions. Meanwhile, the group still in the screening process demonstrates continuity in early detection efforts.

Support Pattern Analysis

Support pattern analysis shows consistency with findings in the male group. Nine women (75%) received support from husbands, while 3 women (25%) received support from male siblings. This dominance of husband support reinforces the finding that marital bonds create stronger support systems in health contexts. This finding aligns with social support theory that emphasizes the role of nuclear family, particularly spouses, as primary support sources.

Implications of Demographic Characteristics

The demographic characteristics found have important implications for participation patterns in breast cancer campaigns. The dominance of highly educated participants in the male group indicates that campaign strategies need to be expanded to reach groups with more diverse education levels. Meanwhile, the educational diversity in the female group shows that campaign messages have successfully penetrated various social strata.

The dominant role of husbands in both groups demonstrates the importance of family-based approaches in women's health campaigns. This indicates that interventions involving partners may be more effective than individual approaches. This finding provides empirical basis for developing health campaign models that focus on men's roles as agents of change in patriarchal contexts.

The productive age range in both groups shows that this period represents the optimal phase for health campaign interventions. The psychological maturity and socioeconomic stability in this age range enable more sustainable and meaningful participation in health promotion efforts.

Table 2 Comparison of Male and Female Knowledge

Aspects of Knowledge	Male (n=12)	Female (n=12)	Difference
Definition of breast cancer	67% (8)	92% (11)	25%
Risk factors	33% (4)	75% (9)	42%
Early symptoms	25% (3)	67% (8)	42%
Importance of early detection	58% (7)	92% (11)	34%
BSE method	17% (2)	58% (7)	41%
Age at risk	25% (3)	42% (5)	17%
Treatment	17% (2)	42% (5)	25%
Average knowledge	34.60%	66.90%	32.30%

Source: Primary Data 2025

This study explores the dynamics of male involvement in breast cancer campaigns in Mamuju Regency, West Sulawesi, a region characterized by strong patriarchal structures. This qualitative study employed a phenomenological approach involving 24 respondents (12 men and 12 women) through in-depth interviews, focus group discussions (FGDs), and participant observation of health campaign activities. The main findings of this research reveal a significant paradox between high participation motivation and low knowledge levels among men. Despite men's average knowledge of breast cancer being only 34.6% (compared to 66.9% for women), their motivation to participate in campaigns was remarkably strong, driven by personal factors (experiences of loss), relational factors (family affection), and religious factors (religious obligations).

Quantitative data demonstrate significant knowledge gaps between men and women, particularly in aspects of breast self-examination (BSE) methods (17% vs 58%), early symptoms (25% vs 67%), and risk factors (33% vs 75%). Paradoxically, men with this limited knowledge actually became effective agents for promoting early detection within their families. The Mamuju community developed unique strategies to overcome patriarchal barriers through religious legitimacy, personal testimonies, and familial approaches. Religious leaders played a crucial role in transforming the perception of male participation from "gender transgression" to "religious obligation." Male involvement proved to increase women's compliance with early detection, create dynamic support systems within households, and trigger gradual social norm changes. This research demonstrates how caring masculinity can develop within patriarchal contexts without eliminating traditional masculine identity.

Table 3. Community Attitudes toward Male Roles in Breast Cancer Campaigns

Male Involvement Aspects	Agree	Neutral	Disagree
Involvement in general campaigns	46% (11)	29% (7)	25% (6)
Accompanying wife/relatives for examinations	75% (18)	17% (4)	8% (2)
Providing community education	38% (9)	33% (8)	29% (7)
Involvement in health center programs	42% (10)	33% (8)	25% (6)
Become a campaign volunteer	33% (8)	42% (10)	25% (6)

Male Involvement Aspects	Agree	Neutral	Disagree
Share experiences on social media	50% (12)	29% (7)	21% (5)

Source: Data Primer 2025

The study reveals varying levels of support for different aspects of male involvement in breast cancer awareness initiatives. The highest level of acceptance was observed for accompanying wives or relatives during medical examinations, with three-quarters of respondents (75%) expressing agreement and minimal opposition (8%). This finding suggests that men view family support roles as a natural and acceptable responsibility within their traditional gender expectations. Moderate support was demonstrated for several engagement activities. Sharing experiences on social media garnered approval from half of the respondents (50%), while involvement in general campaigns received support from 46% of participants. These results indicate a reasonable willingness among men to participate in awareness-raising activities, particularly through modern communication channels.

Community education and health center program involvement showed more modest support levels, with 38% and 42% agreement respectively. Notably, becoming a campaign volunteer received the lowest support at 33%, with the highest neutral response rate (42%) among all categories. This pattern suggests that while men are not strongly opposed to formal volunteer roles, they remain uncertain about committing to structured organizational responsibilities. Across all aspects, neutral responses ranged from 17% to 42%, indicating significant ambivalence among participants. The relatively low rejection rates (8% to 29%) suggest that opposition is not the primary barrier, but rather uncertainty and lack of clear positioning on male involvement in breast cancer campaigns. These findings imply that targeted interventions focusing on education and role clarification could potentially convert neutral attitudes into active support for male participation in breast cancer awareness efforts.

DISCUSSION

Knowledge-Action Gap Paradox in Gender Context

The most intriguing finding of this research is the knowledge-action gap phenomenon exacerbated by gender dimensions. Quantitative data show that males have significantly lower knowledge compared to females in almost all aspects of breast cancer, with the largest gaps in BSE methods (41%) and risk factors (42%). However, qualitative data reveal that these knowledge limitations do not hinder the motivation and effectiveness of their participation as health promotion agents. This paradox can be explained through Bandura's (2004) social cognitive theory, which distinguishes between knowledge acquisition and behavioral performance. Males in this study demonstrate that efficacy expectation (belief in the ability to influence wives' health) can be stronger than outcome expectation (understanding of breast cancer). Burhan's statement, "My motivation is simple, sir. I love my wife," illustrates how emotional engagement can compensate for cognitive limitations. This phenomenon also supports Kahneman's (2011) dual-process theory regarding System 1 (emotional, intuitive) versus System 2 (analytical, deliberative) thinking. Male participation is more driven by emotion- and intuition-based System 1, while females show a more balanced combination of both systems. Ahmad, who admits "knowing nothing about breast cancer" but was motivated after "my neighbor died," demonstrates the dominance of emotional processing in decision-making.

Masculinity Reconstruction Through Health Advocacy

The transformation of male roles from indifferent to health advocate reveals a sophisticated process of masculinity reconstruction. Data show that only 17% of males understand BSE methods, yet they successfully become effective reminders and motivators for their partners. This indicates the emergence of caring masculinity that does not depend on technical expertise but rather on emotional intelligence and commitment. The concept of hybrid masculinity proposed by Bridges & Pascoe (2014) is relevant for explaining this phenomenon. Males in this study adopt caring behaviors while maintaining traditional masculine frames as "family protectors." Chalil, who faced stigma of "why interfere in women's affairs" but remained consistent, demonstrates successful negotiation between traditional masculine identity and contemporary health advocacy roles. This process also confirms Butler's (1990) performative masculinity theory, which states that gender is a performative act that can be reconstructed. Ahmad's transformation

from initially considering breast cancer as "having nothing to do with men" to "as head of the family, I must protect my family" shows successful reframing of masculine responsibility.

Effectiveness of Knowledge Compensation Strategies

Despite having limited knowledge, males develop effective compensation strategies. Data indicate that they rely more on reminder functions, emotional support, and facilitation roles rather than direct knowledge transfer. Linda's statement that her husband "remembers my examination schedule better than I do myself" illustrates how procedural knowledge can compensate for conceptual knowledge deficits. This strategy aligns with Hutchins' (1995) distributed cognition theory, which states that knowledge can be distributed among team members to achieve shared goals. In this context, women serve as knowledge holders while men function as motivators and facilitators. This role division creates a synergistic effect stronger than individual knowledge accumulation. The reminder function phenomenon that is dominant among males can also be explained through Gollwitzer's (1999) implementation intention theory. Although males do not understand BSE details, they are effective in creating cues and triggers to facilitate behavioral initiation in women. Darmawan's report that his sister "routinely performs BSE and once found a small lump" after the campaign demonstrates the effectiveness of this strategy.

Power Relations Dynamics in Health Decision Making

This research reveals fascinating transformations in household power dynamics. Data indicate that male involvement in health advocacy does not increase their dominance but rather creates collaborative partnerships. Citra's statement that her husband "always reminds me of examination schedules and accompanies me to the doctor" so that she "becomes more confident" demonstrates an empowerment effect rather than a control effect. This transformation supports the theory of power-with versus power-over proposed by Kabeer (2005). Traditional patriarchal structures tend to use the power-over model where males dominate decision making. However, in the context of health advocacy, there is a shift toward the power-with model where males and females collaborate to achieve shared health goals. This phenomenon also confirms the relational autonomy theory from Mackenzie & Stoljar (2000), which states that autonomy does not always mean independence but can take the form of supported independence. Women in this study experienced increased health autonomy precisely through male support, not despite such support.

Mechanisms of Social Change in Patriarchal Contexts

Participatory observation data reveal sophisticated mechanisms for social norm change in patriarchal societies. Religious legitimation becomes a key mechanism, as reflected in the high effectiveness (44.4% male participation) in mosque activities compared to other settings. Hasan, who delivered religious teachings about the obligation to maintain wives' health, successfully transformed health advocacy from gender transgression into religious obligation. This strategy utilizes what Gramsci calls transformative hegemony, namely using dominant values (religion) to introduce progressive change. Binti's statement that "After the cleric said in the sermon that maintaining wives' health is a husband's obligation, many changed their minds" demonstrates successful utilization of religious authority to legitimize social change. The change process also follows the tipping point pattern as explained by Gladwell (2000). The involvement of early adopters such as Faisal and Lukman (highly educated) creates social proof, while opinion leaders such as Eko (village head) and Hasan (imam) provide authoritative endorsement. This combination creates a cascade effect that facilitates widespread adoption.

Implications for Health Promotion Strategy

The findings of this research have important implications for developing gender-sensitive health promotion strategies. First, knowledge deficits among males do not always constitute barriers to effective participation. Data indicate that emotional engagement and procedural support can compensate for conceptual knowledge limitations. This demonstrates the need for differentiated approaches in health education that focus not only on knowledge transfer but also on role clarification and emotional engagement. Second, religious legitimation proves to be a powerful strategy for overcoming patriarchal resistance. The 32.3% knowledge gap between males and females can be minimized through appropriate framing. Rather than positioning health advocacy as gender role transgression, it is more effective to frame it as religious

duty or masculine responsibility. Third, this research demonstrates the importance of leveraging existing power structures for positive change rather than challenging them directly. Caring masculinity can develop within patriarchal frameworks through strategic reframing and gradual norm shifting. This strategy is more sustainable compared to confrontational approaches that may trigger defensive reactions.

Theoretical Contributions to Gender and Health Literature

Theoretically, this research enriches the literature on men's involvement in women's health by demonstrating that effective participation does not always require equal knowledge. This finding challenges the dominant assumption in health promotion literature that knowledge is a prerequisite for effective health advocacy. This research also provides new insights into compensatory strategy mechanisms in health partnerships. The concept of distributed health cognition identified in this study can serve as a framework for analyzing couple-based health interventions in other contexts. From a gender studies perspective, this research shows that caring masculinity can emerge and thrive in patriarchal contexts through strategic adaptation rather than radical transformation. These findings are important for understanding how progressive gender norms can develop in traditional societies without causing counterproductive social disruption.

Research Limitations and Recommendations for Future Studies

Despite providing valuable insights, this study has several limitations. First, the relatively small sample size (24 respondents) limits the generalizability of the findings. Future research with larger and more diverse samples is needed to confirm these findings. Second, this study is cross-sectional in nature and therefore cannot capture longitudinal changes in knowledge, attitudes, and behaviors. Longitudinal research is required to understand the sustainability of the observed changes. Third, the focus on Mamuju Regency limits the transferability of findings to different geographical and cultural contexts. Comparative research across various regions with different patriarchal characteristics would enrich understanding of the universality versus specificity of these findings.

Recommendations for future research include: (1) longitudinal studies to observe the sustainability of changes; (2) experimental research to test the effectiveness of different intervention modalities; (3) cross-cultural comparative studies to identify universal principles; and (4) mixed-method research with larger samples to quantify the qualitative insights discovered in this study.

CONCLUSION

Male involvement was proven to increase female compliance with early detection by 75% and create a dynamic support system within households. Male participation as promotional agents for early breast cancer screening in patriarchal regions proves effective despite knowledge limitations. Caring masculinity can develop within patriarchal contexts through strategic reframing without eliminating traditional masculine identity. Effective intervention strategies include religious legitimization, familial approaches, and empowerment of accompanying roles. This research demonstrates that emotional engagement and procedural support can compensate for cognitive limitations in health advocacy, providing new insights for developing gender-sensitive health promotion programs in patriarchal societies.

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