



Original Research Article

EMPOWERED YET UNAWARE? KNOWLEDGE, ATTITUDE, PRACTICE, AND BARRIERS TO SELF-BREAST EXAMINATION AMONG WOMEN IN TAMIL NADU: A MIXED-METHOD STUDY

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ABSTRACT

Background: Breast cancer is the most common malignancy among Indian women, yet self-breast examination (SBE) — a simple, cost-free screening tool — remains markedly underutilised. Identifying the knowledge gaps, attitudinal barriers, and contextual factors that limit SBE is essential for targeted community health action, particularly in Tamil Nadu where breast cancer burden is disproportionately high. The objective is to assess knowledge, attitude, and practice (KAP) of SBE; To examine the association between education level and KAP scores; To examine the association between various age groups and KAP scores; and to qualitatively explore the barriers to SBE among women visiting a government hospital in Chennai.

Materials and Methods: A cross-sectional, mixed-method study was conducted among 253 women aged 18 years and above. Quantitative data were collected using a validated, structured questionnaire covering 15 knowledge items, 12 attitude items on a five-point Likert scale, and 7 practice items. Two focus group discussions (FGDs) were conducted purposively — one with women above 40 years and one with women aged 21–38 years — to qualitatively explore and compare the barriers prevalent in the 2 age groups. Data were entered and analysed in SPSS version 16. Continuous variables are reported as mean \pm standard deviation. Association between education level and KAP as well as that between age groups and KAP categories were tested using chi-square.

Results: Knowledge scores ranged from 0 to 30, with a mean of [20.96 \pm 4.849]. Attitude scores yielded a mean of [33.99 \pm 6.321], and practice scores a mean of [13.77 \pm 5.235]. Only 35% of participants had adequate knowledge and 36% demonstrated a positive attitude toward SBE, in spite of which regular practice was reported by only 13%. FGD analysis identified six major barrier themes: fear and avoidance behaviour, knowledge and technique deficit, traditional health beliefs, financial constraints, lifestyle and time pressures, and inadequate healthcare provider counselling.

Conclusion: Despite reasonable access to healthcare, knowledge, positive attitude, and regular practice of SBE remain poor in this population. Fear of cancer diagnosis, reliance on traditional medicine, lack of time, and poverty emerged as dominant barriers in qualitative analysis. Targeted educational interventions, routine SBE counselling by healthcare providers, and community-level awareness programmes are urgently needed.

Keywords: Mixed-method study, Self-breast examination, Tamil Nadu.

INTRODUCTION

Breast cancer is the leading malignancy among women in India, accounting for approximately 14% of all female cancers and remaining the single largest cause of cancer-related mortality in this group.^[1] Globally, the burden is equally sobering, with over 2.3 million new cases diagnosed annually. In India, Tamil Nadu, Kerala, and Punjab record some of the highest Disability Adjusted Life Year (DALY) rates attributable to breast cancer.^[2] Early detection remains the cornerstone of improved survival; stage-I breast cancer carries a five-year survival rate exceeding 90%, whereas the same figure drops below 30% at stage IV.

Non-medical, self-directed screening tools are of particular importance in low and middle-income settings where mammography is limited by cost and access, and MRI is largely unavailable at the primary care level. Self-breast examination (SBE) — a monthly, tactile and visual assessment of breast tissue performed by the woman herself — satisfies all criteria for an ideal community-level screening method: it is non-invasive, free of charge, requires no equipment, and can be taught to any literate or non-literate woman by a trained health worker. The American Cancer Society recognises SBE as a means by which women may become familiar with the normal appearance and texture of their breasts so that deviations — lumps, skin dimpling, nipple retraction, or discharge — are detected early.^[3]

Yet evidence consistently reveals a paradox: awareness of breast cancer exists at a population level, but knowledge of the correct SBE technique, a positive attitude toward performing it, and — crucially — regular practice all remain poor.^[1] A pan-Indian study found that while the mean knowledge score was relatively acceptable (22 of 30), the attitude score (36 of 52) and practice score (13 of 28) were both inadequate, indicating that knowledge alone does not translate into behaviour.^[1] Similar findings have been reported from Malaysia, Myanmar, Saudi Arabia, and Morocco, suggesting that the knowledge–practice gap is a cross-cultural challenge requiring context-specific inquiry.^[4-7]

In Tamil Nadu, cultural norms around bodily modesty, reliance on traditional Siddha and Ayurvedic medicine, multi-generational households that reduce physical privacy, and the dual burden of paid employment and domestic responsibility create a distinctive barrier landscape that has not been comprehensively characterised. Majority of published studies from the region have focused solely on one or two domains of the KAP framework, and only a few have combined quantitative and qualitative methods to capture both the prevalence and the barriers leading to non-practice.^[2]

This study therefore adopts a mixed-method design — a structured KAP questionnaire paired with focus group discussions (FGDs) — to simultaneously

measure the magnitude of gaps in SBE knowledge, attitude, and practice and to explore, in women's own words, the personal, social, cultural, systemic, and financial forces that prevent them from examining their own breasts.

Objectives

1. To assess knowledge, attitude, and practice of self-breast examination among women in the field practice area of a government medical college in Chennai.
2. To qualitatively explore the barriers to self-breast examination in this population.

MATERIALS AND METHODS

Study Design and Setting: A cross-sectional, mixed-method study was conducted at Omandurar Government Medical College Hospital, Chennai, over a three-month period. The hospital serves a predominantly urban-poor and peri-urban population and offers a representative cross-section of women across socioeconomic and educational strata. Ethical clearance was obtained from the Institutional Ethics Committee prior to commencement, and written informed consent was taken from every participant before enrolment.

Study Population and Eligibility: All women aged 18 years and above who attended the outpatient departments of the hospital during the study period and were willing to participate were eligible. Women with a confirmed diagnosis of breast carcinoma or a known breast lump were excluded, as were women below 18 years and those unwilling to participate.

Sample Size and Sampling: The sample size was calculated using the formula $N = Z^2pq/d^2$, where p was taken as 63.3% (expected prevalence of SBE awareness based on Abdul Azeez et al.^[2]), $q = 36.7%$, $Z = 1.96$ at 95% confidence, and $d = 6%$ absolute precision, yielding a minimum of 248 participants. Convenience sampling was used for the quantitative component. For the qualitative component, participants were purposively selected from the survey sample to represent two age strata — women above 40 years, and women aged 21–38 years — and diverse educational backgrounds.

Ethical Approval: Ethical clearance was obtained from the Institutional Ethics Committee, Government Medical College, Omandurar Government Estate, Chennai. Verbal informed consent was obtained from all participants prior to data collection. Confidentiality was maintained throughout; no personally identifiable information was recorded. The study was conducted in full accordance with the principles of the Declaration of Helinski (2013 revision).

Data Collection

Quantitative Data Collection: A validated, structured, interviewer-administered questionnaire⁸ (adapted from the instrument developed by Nik Rosmawati for a suburban Malaysian population)

contextualised to the Tamil Nadu setting was used. The questionnaire comprised four sections:

- **Section A — Sociodemographic details:** age, education level, occupation, marital status, and family history of breast disease.
- **Section B — Knowledge (15 items):** True/False/Don't Know questions covering SBE frequency, timing relative to menstruation, technique (visual inspection, palpation method, positions), and breast cancer warning signs. Each response was scored – True -2 points; False -1 point; incorrect or 'Don't Know' responses scored 0. Total range: 0–30.
- **Section C — Attitude (12 items):** Five-point Likert scale (Strongly Disagree =0 to Strongly Agree = 4) covering perceived discomfort, time investment, care for breast health, fear of cancer diagnosis, and interest in SBE information. Total range: 0–48.
- **Section D — Practice (7 items):** Responses on frequency of SBE, professional teaching, partner or family encouragement, confidence in technique, and health-seeking behaviour upon detecting an abnormality were asked. Answers were recorded as Never/ seldom/ neutral/ frequently/ always. Total range: 0–28.
- For all negative Knowledge/ Attitude/ Practice questions the scoring was reversed.
- Sessions were conducted in Tamil by trained investigators. No personally identifiable information was asked to the questionnaire.

Qualitative Data Collection: Two semi-structured focus group discussions (FGDs) were conducted in Tamil, each lasting 15 - 20 minutes. FGD-1 comprised six women aged 43–75 years, and FGD-2 comprised six women aged 21–38 years. An

interviewer guide exploring thirteen thematic domains — including myths, knowledge barriers, cultural norms, psychological factors, lifestyle constraints, privacy concerns, healthcare system gaps, financial limitations, and family support — was used to facilitate discussion. Sessions were audio-recorded with participant consent, transcribed verbatim, and translated to English for analysis.

Data Analysis: Quantitative data were entered into Microsoft Excel and analysed using SPSS version 16. Continuous variables are expressed as mean ± standard deviation; categorical variables as frequencies and percentages. Education level was recoded ordinally (0 = no formal education to 4 = graduate and above). Age was recoded into age groups and association of age with KAP scores was studied through Chi-square. Chi-square analysis was used to test the association between education level and categorical KAP outcomes (good vs poor). Scores > 75% were considered good and those < 75% as poor. Statistical significance was set at $p < 0.05$. Qualitative data were analysed using thematic content analysis. Two investigators independently coded transcripts, identified recurring patterns, and resolved discrepancies by consensus. Themes were then mapped against the barrier domains from the interview guide.

RESULTS

Sociodemographic Profile

A total of 253 women were enrolled. [Table 1] presents the sociodemographic characteristics of the study population.

Table 1: Sociodemographic characteristics of the study participants (n = 253)

Variable	Category	(%)
Age group (years)	≤40	25%
	>40	75%
Education level	No formal education	9%
	Primary	8%
	Secondary	13%
	Higher Secondary	27%
	Graduate and above	43%
Occupation	Housewife	51%
	Employed / Self-employed	47%
	Student	2%
Marital status	Married	75%
	Single / Unmarried	6%
	Widowed	1%
	Separated	18%
Family history of breast disease	Yes	21%
	No	76%
	Not sure	3%

Knowledge of Self-Breast Examination

Overall, the mean knowledge score was [20.96 ± 4.849] out of a maximum of 30. Among the 15 knowledge items, Questions assessing awareness of SBE warning signs (nipple retraction as a cancer sign; a lump as an early sign) showed the highest proportion of correct responses. In contrast,

knowledge of the optimal timing of SBE (days 7–10 post-menstruation) and the correct palpation technique (use of finger pulps in vertical strip or circular patterns) was more limited. Overall, 35% of participants were categorised as having good knowledge (score ≥ 23) ie 75% of the maximum

marks in the knowledge section as seen in [Figure 1].

Attitude Towards Self-Breast Examination

The mean attitude score among all participants was 33.99 ± 6.321 out of 48. A positive attitude was defined as a score of ≥ 34 . Accordingly, 36% of women demonstrated a favourable attitude toward SBE as represented in [Figure 1]. The most endorsed negative attitude items were those relating to embarrassment, discomfort about performing SBE monthly, and avoidance driven by fear of a cancer diagnosis. Conversely, items reflecting genuine concern for breast health and interest in SBE information received more favourable responses.

Practice of Self-Breast Examination

The mean practice score was 13.77 ± 5.235 out of 28. Only 27% of participants reported frequently performing SBE at least once a month. Interest in learning the correct method of SBE was affirmed by 44% of participants. It was noticed that in most homes support of family and counterparts to women health in general is absent. Health-seeking behaviour upon noticing an abnormality was endorsed by 46% of participants. Comparison of practice scores to that of Knowledge and Attitude can be seen in [Figure 1].

Association Between Education Level and KAP

[Table 2] presents the chi-square results examining the association between education level and categorised KAP outcomes (Bloom's criterion: $\geq 75\%$ of maximum score = good; $< 75\%$ = poor). A statistically significant association was found between education level and knowledge category ($p < 0.001$), indicating that higher educational

attainment was associated with greater chances of having good SBE knowledge; 64.2% of graduates had good knowledge compared to only 4.3% among those with no formal education and 0.0% among those with primary education. The association between education and attitude category was likewise statistically significant ($p < 0.001$), with 49.5% of graduates demonstrating a positive attitude versus 17.4% and 38.1% among those with no formal education and primary education respectively. The association between education level and practice category was also statistically significant ($p = 0.026$), with good practice declining sharply at lower education levels; no participant with primary-level education or no formal education reported good practice scores.



Figure 1: KAP scores (Good vs Poor)

Table 2: Association between education level and KAP categories (Chi-square test)

Education Level	Good Knowledge N/(%)	Good Attitude N/(%)	Good Practice N/(%)	p-value
No formal education	1 (4.3%)	4 (17.4%)	0 (0.0%)	K: $p < 0.001$
Primary	0 (0.0%)	8 (38.1%)	0 (0.0%)	
Secondary	5 (15.6%)	11 (34.4%)	4 (12.5%)	A: $p < 0.001$ P: $p = 0.026$
Higher Secondary	13 (19.1%)	13 (19.1%)	7 (10.3%)	
Graduate and above	70 (64.2%)	54 (49.5%)	21 (19.3%)	

Association Between Age Group and KAP:

[Table 3] presents the chi-square results examining the association between age group and categorised KAP outcomes. Participants were grouped into four age bands: 18–40, 41–50, 51–60, and 61–81 years. A statistically significant association was found between age group and knowledge category ($p < 0.001$). Good knowledge declined progressively with advancing age: 42.6% of those aged 18–40 years had good knowledge, compared to 7.3% in the

61–81 group. The association between age group and attitude category was of borderline significance ($p = 0.053$); positive attitude was most common in the 41–50 group (41.5%) and least common in the oldest group, 61–81 years (17.1%). The association between age group and practice category was not statistically significant ($p = 0.509$), with good practice remaining uniformly poor across all age groups, ranging from 7.3% in the 61–81 group to 13.2% in the 18–40 group.

Table 3: Association between age group and KAP categories (Chi-square test)

Age Group (years)	Good Knowledge N/(%)	Good Attitude n N/(%)	Good Practice n N/(%)	p-value
18–40	29 (42.6%)	27 (39.7%)	9 (13.2%)	K: $p < 0.001$
41–50	29 (44.6%)	27 (41.5%)	7 (10.8%)	
51–60	28 (35.4%)	29 (36.7%)	13 (16.5%)	A: $p = 0.053$ P: $p = 0.509$
61–81	3 (7.3%)	7 (17.1%)	3 (7.3%)	

Association Between Family History of Breast Disease and KAP: [Table 4] shows the chi-square analysis that revealed a statistically significant association between a known history of breast disease among friends /family and both knowledge and attitude categories but not practice.

Participants with a prior history demonstrated markedly better knowledge, with 69.8% classified as having good knowledge compared to only 26.6% among those without any known history ($p < 0.001$). This finding is consistent with the hypothesis — proximity to breast disease, appears to heighten engagement with breast health information and motivates women to seek out knowledge about warning signs and self-examination technique.

A prior history was also significantly associated with a favourable attitude toward SBE ($p = 0.024$). Among women with a known history, 49.1% had a

good attitude, versus 32.3% in those without. This suggests that social exposure to breast disease reduces the psychological distance between the individual and fear of breast cancer, which is a key determinant of health-seeking behaviour in the Health Belief Model framework.

However, no significant association was found between history of breast disease and good practice ($p = 0.339$). Despite better knowledge and attitude, women with a positive history did not translate these advantages into regular SBE practice at significantly higher rates — only 17.0% reported good practice compared to 12.0% among those without a history. This knowledge–practice gap mirrors the broader pattern observed across the dataset and underscores that awareness and motivation alone are insufficient to drive behaviour change without structured skill-building and reinforcement.

Table 4: Association Between History of Breast Disease and KAP Categories (Chi-square test).

History of Breast Disease	Good Knowledge N (%)	Good Attitude N (%)	Good Practice N (%)	p-value
No (N=192)	51 (26.6%)	62 (32.3%)	23 (12.0%)	K: $p < 0.001$
Yes (N=53)	37 (69.8%)	26 (49.1%)	9 (17.0%)	A: $p = 0.024$ P: $p = 0.339$

Qualitative Findings: Barriers to Self-Breast Examination

Thematic analysis of the two FGD transcripts yielded six major barrier themes. Participant quotations are identified by group and participant designation (e.g., FGD-1, W2).

Theme 1: Fear and Avoidance of Diagnosis

The most pervasive barrier expressed across both age groups was an active fear of discovering cancer. Women described a pattern of deliberate non-examination to avoid the psychological burden of a potential diagnosis. Younger and older women alike articulated the view that ignorance was less distressing than confirmation of disease. One participant described knowing a friend who refused medical consultation for over a year after finding a breast lump because of fear that a confirmed diagnosis would cause panic in her family. The perceived stigma associated with cancer — specifically, concern that family members might isolate a diagnosed woman or fear contagion — compounded avoidance behaviour. One participant noted, women worried that their loved ones would withdraw from them if they received a cancer diagnosis.

Theme 2: Knowledge Deficit and Technique Uncertainty

The majority of participants in both FGDs reported having heard the term 'self-breast examination' but could not accurately describe the technique. Most had not received formal instruction from a healthcare provider. Women who had been taught described receiving guidance from a physician during a clinical visit, and these individuals demonstrated comparatively greater self-efficacy in performing SBE. The role of incidental learning — acquiring SBE knowledge through health camps or

workplace health programmes — was acknowledged but noted to be infrequent. A recurring concern was the absence of proactive SBE counselling during routine healthcare encounters.

Theme 3: Traditional Health Beliefs and Myths

Several entrenched myths shaped women's perceptions of breast cancer and SBE. The belief that breastfeeding confers complete protection against breast lumps was expressed independently in both groups. One participant described receiving a postpartum injection to suppress lactation (after delivery of twins) and subsequently developing anxiety about an elevated personal risk of breast lumps — a fear that paradoxically motivated regular self-examination in her case. Participants also described a preference for Siddha and Ayurvedic treatment over allopathic medicine, citing the perceived invasiveness of surgical management and cost as deterrents. A woman who participated said the Nithyakalyani flower has anticancer benefits, but was unaware of the success rates these traditional remedies have in curing cancer. The belief that dietary and lifestyle choices — particularly modern, synthetic food — were more relevant to cancer risk than screening behaviour was common. A participant in FGD-2 noted that her confidence in a healthy lifestyle made her feel cancer was simply not a realistic possibility for her.

Theme 4: Financial Constraints and Treatment Fatalism

Financial barriers were stated by both groups and were closely intertwined with treatment avoidance. Women from lower socioeconomic backgrounds expressed the view that early detection served little purpose if treatment was unaffordable. One participant described the cost of a single hospital visit as equivalent to a week's earnings, making

follow-up care economically inaccessible. The absence of financial support from a husband whose income was spent on alcohol was cited as a specific impediment to acting on a physician's recommendation for mammography. Treatment fatalism — the belief that cancer is not curable in its early stages — further undermined the perceived value of SBE as a meaningful preventive act.

Theme 5: Lifestyle and Time Poverty

Both employed and homemaking women described time poverty as a central constraint. The dual burden of paid work and domestic responsibility — cooking, childcare, and household management — crowded out any deliberate attention to personal health. Multiple participants described a cultural norm in which women are expected to prioritise family wellbeing over their own health, and presenting as unwell was perceived as a failure of this role. One participant articulated this directly, describing how she would continue household duties even when ill and rest only when her incapacity became undeniable. SBE, requiring deliberate self-directed attention, hence was taken lightly by women.

Theme 6: Healthcare System Gaps and Provider Counselling

Participants across both groups identified the healthcare system as a missed opportunity for SBE education. Despite regular attendance at outpatient services — often for chronic disease management — the majority had never been counselled about SBE by a health worker. Women who had received such instruction described it positively and reported greater confidence and more regular practice. The potential of community health camps for cervical and breast cancer screening was acknowledged; however, such camps were reported as infrequent. Comfort with a male healthcare provider was a minor but notable concern for some participants, and gender concordance was identified as a preference when receiving breast health instruction.

DISCUSSION

This mixed-method study among 253 women attending a government tertiary hospital in Chennai provides a population-specific characterisation of SBE knowledge, attitude, practice, and the barriers that women face. The integration of quantitative KAP measurement with qualitative barrier exploration reveals that insufficient knowledge and negative attitudes are not merely cognitive phenomena but are embedded within a matrix of fear, financial vulnerability, cultural norms, and systemic inertia.

The mean knowledge score of $[20.96 \pm 4.849]$ out of 30 in this study is broadly comparable to findings from a pan-Indian KAP study by Sachdeva et al,^[1] which reported a mean knowledge score of 22 out of 30, and from a Tamil Nadu study by Abdul Azeez et al,^[2] where knowledge was relatively better

preserved compared to attitude and practice.^[1] The association between education level and knowledge category observed in our data is consistent with findings from Saudi Arabia, Malaysia, and Morocco, where graduate-level education was consistently the strongest predictor of adequate SBE knowledge^[7,9,10] This finding underscores the need to develop health literacy-sensitive educational tools that do not privilege high formal education as a prerequisite for SBE competence.

The mean attitude score of 33.99 ± 6.321 out of 60, with only 36% classified as having a favourable attitude, mirrors the paradox described by Sachdeva et al., in which Indian women may possess factual knowledge about breast cancer yet fail to internalise a personal sense of susceptibility or motivation to act.^[1] This attitudinal gap is particularly evident in the items addressing embarrassment, discomfort with regular practice, and — most significantly — avoidance rooted in fear of a cancer diagnosis. Our qualitative data brings this last finding to life: women in both FGDs described what may be characterised as 'ostrich behaviour' — the deliberate avoidance of SBE as a psychological defence against unwanted knowledge. Similar patterns have been documented in Myanmar,^[6] and among Sikkimese women,^[11,12] suggesting that this avoidance response is culturally robust and warrants specific intervention.

Practice scores were the weakest domain — a finding replicated across virtually every KAP study in this field — with only 13% of participants performing SBE monthly.^[1-2] The qualitative findings illuminate the mechanisms behind this: women who had been personally taught SBE by a healthcare provider reported greater confidence and more regular practice, while those who had not received instruction — the majority — described uncertainty about technique as a reason for non-performance. This points to a specific, actionable system-level gap: integrating brief, standardised SBE counselling into routine outpatient encounters, particularly for women attending chronic disease clinics, could translate knowledge into practice without requiring dedicated screening infrastructure. Prior exposure to breast cancer — whether in oneself or through a close contact — acts as a powerful tool for knowledge acquisition, likely through personal relevance and active information-seeking behaviour. Though significant knowledge and attitude scores are seen among those with positive history, the practice scores don't speak the same. This pattern has been reported in comparable studies from Saudi Arabia and Malaysia, where family history was consistently associated with better knowledge but failed to predict regular practice, reinforcing that behavioural interventions must go beyond awareness campaigns. From a public health standpoint, women with a family history or known contact with breast cancer represent an already-motivated subgroup who may

be most receptive to targeted, technique-focused SBE training.

The financial barrier theme that emerged warrants particular attention. Women in lower socioeconomic strata described a fatalistic logic: if treatment is unaffordable, early detection is pointless. This health economics reasoning, however distorted, is rational within the lived reality of women for whom a hospital visit costs a week's income. Addressing this barrier requires not only SBE education but also credible assurance of access to affordable treatment — through insurance coverage, community health worker linkage, or government hospital awareness campaigns — so that early detection is perceived as genuinely actionable.

Traditional health beliefs — particularly the conviction that breastfeeding prevents breast disease and that Siddha medicine offers a less invasive therapeutic alternative — reflect a health belief system in which biomedicine has not fully established credibility for cancer management. Interventions that engage with rather than dismiss these beliefs, and that position SBE as complementary to rather than competitive with traditional health practices, may encounter less resistance in community settings.

This study has several strengths. The mixed-method design allows statistical quantification to be contextualised by participant narrative, producing a more complete explanatory picture than either method alone. The use of a validated, standardised questionnaire adapted from a previously published instrument enhances comparability with regional and international literature. Limitations include convenience sampling, which may introduce selection bias toward women with greater healthcare engagement and therefore potentially overestimate knowledge and practice. The single-hospital setting in an urban area limits generalisability to rural Tamil Nadu populations.

CONCLUSION

Knowledge, attitude, and practice of self-breast examination remain substantially below desirable levels among women attending a government tertiary hospital in Chennai, Tamil Nadu. Education level is significantly associated with SBE knowledge, but this association alone is insufficient to drive practice without targeted behavioural intervention. Qualitative findings reveal that fear of diagnosis, treatment fatalism rooted in financial constraints, deeply held traditional health beliefs, time poverty, and the near-complete absence of provider-initiated SBE counselling collectively perpetuate non-practice.

The findings call for a multi-level response. At the provider level, integrating brief SBE counselling into every routine gynaecology, diabetes, and

chronic disease outpatient encounter represents a low-cost, high-reach opportunity. At the community level, health workers trained to teach SBE in local languages and sensitive to cultural beliefs about bodily modesty and traditional medicine can bridge the gap between healthcare facilities and households. At the system level, visible public campaigns linking SBE awareness to the availability of affordable treatment may address the fatalistic logic that undermines women's motivation to examine themselves. Women's health cannot be improved by knowledge transfer alone — it requires removing the structural and psychological barriers that prevent women from acting on what they know.

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