
**BREAST CANCER RISK FACTORS AWARENESS AND ATTITUDE
TOWARDS BREAST SELF-EXAMINATION AMONG FEMALE
TEACHERS IN PUBLIC SECONDARY SCHOOLS IN AKWA IBOM
NORTH-WEST SENATORIAL DISTRICT**

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ABSTRACT

Breast cancer remains an important health concern among women, and awareness of its modifiable and reproductive risk factors may influence attitudes towards preventive practices. This study examined breast cancer risk factors awareness and attitude towards breast self-examination among female teachers in public secondary schools in Akwa Ibom North-West Senatorial District. Specifically, the study examined the extent of influence of awareness of alcohol intake and reproductive factors on female teachers' attitude towards breast self-examination. A descriptive survey design was adopted. The study involved 159 female teachers selected from public secondary schools in the senatorial district. Data were collected using the *Knowledge of Risk Factor of Breast Cancer Questionnaire* and *Teachers' Attitude Towards Breast Self-Examination Questionnaire*. The instruments were face-validated by experts and yielded a reliability coefficient of .89 using Cronbach's alpha. Simple linear regression was used to answer the research questions and test the null hypotheses at the .05 level of significance. The findings showed that alcohol intake had a very high extent of influence on female teachers' attitude towards breast self-examination, while reproductive factors had a high extent of influence. The corresponding null hypotheses were rejected, indicating statistically significant influences of alcohol intake and reproductive factors on female teachers' attitude towards breast self-examination. The study concluded that improving awareness of breast cancer risk factors, particularly alcohol intake and

reproductive factors, is important for promoting favourable attitudes towards breast self-examination among female teachers.

KEYWORDS: Breast Cancer, Alcohol Intake, Reproductive Factors, Risk-Factor Awareness, Breast Self-Examination, Female Teachers.

1. INTRODUCTION

Breast cancer is an important health problem among women, and understanding its risk factors is essential for promoting preventive health behaviour and encouraging early attention to breast abnormalities. The main research work identifies genetic mutation, breast density, obesity, alcohol intake and reproductive factors as important breast cancer risk factors examined among female teachers in Akwa Ibom North-West Senatorial District. These factors represent different dimensions of breast cancer vulnerability, ranging from inherited and biological characteristics to lifestyle and reproductive conditions. Although some of these factors cannot be modified, knowledge of them may help women understand their individual level of vulnerability and make informed decisions about their health. The study further recognises that women's attitudes towards breast self-examination may be influenced by their level of knowledge and awareness, personal background, financial circumstances and beliefs about cancer. Consequently, adequate knowledge of breast cancer risk factors may provide women with a better understanding of why regular attention to breast health is important. For female teachers, such knowledge is particularly significant because they constitute an educated group that can also influence health awareness among students and members of their communities. Strengthening their knowledge may therefore contribute not only to personal breast health but also to the wider dissemination of appropriate information about breast cancer prevention and early detection.

Breast self-examination provides women with an opportunity to become familiar with the normal appearance and feel of their breasts and to recognise unusual changes that may require further attention. Regular attention to breast changes may increase women's awareness of their breast health and encourage them to seek appropriate professional advice when abnormalities are noticed. Awareness of breast cancer and its risk factors may further encourage women to take greater responsibility for monitoring their breast health and adopting appropriate preventive practices. However, having information about breast cancer does not necessarily guarantee that women will engage in breast self-examination. The original research observed that negative attitudes, ignorance, cultural and religious beliefs

and inadequate awareness may discourage some women from carrying out breast self-examination. Fear of discovering an abnormality, misconceptions about cancer and limited understanding of the purpose of breast self-examination may also affect women's willingness to practise it. These challenges demonstrate that breast cancer education needs to address not only knowledge but also attitudes and beliefs surrounding breast health. Improving women's understanding of breast cancer risk factors may consequently help strengthen their perception of personal vulnerability and encourage more favourable attitudes towards breast self-examination.

Alcohol intake is an important modifiable risk factor considered in the present article because, unlike many biological or inherited risk factors, alcohol consumption can potentially be reduced or avoided. The main work reports that alcohol consumption is associated with increased breast cancer risk and notes that reducing alcohol consumption may contribute to risk reduction. Hasanpoor and Dehkordi (2021), as cited in the study, identified alcohol consumption as a major modifiable risk factor for breast cancer. This makes awareness of alcohol-related risk particularly important in breast cancer education because women may not always recognise alcohol consumption as a factor that can influence their breast health. The study also cites evidence that alcohol can influence estrogen-related hormones and estrogen receptor pathways (Aghabarari & Mohammadi, 2020). Such hormonal effects provide a possible explanation for the relationship between alcohol consumption and breast cancer development. Awareness of this relationship may help women make more informed decisions about alcohol consumption and their general health. Among female teachers, adequate knowledge of alcohol as a breast cancer risk factor may also contribute to greater perception of personal risk and encourage a more favourable attitude towards breast self-examination.

The relationship between alcohol and breast cancer has also been discussed in relation to the amount consumed, suggesting that the level and pattern of alcohol intake may be important considerations in understanding breast cancer risk. The main research work reports that epidemiological evidence has linked alcohol consumption with breast cancer risk and that higher alcohol intake is associated with increased risk (McPherson et al., 2021). It further notes that alcohol may alter estrogen levels and thereby affect breast density, which is itself a breast cancer risk marker. This relationship is important because it shows that alcohol consumption may influence breast cancer through more than one biological pathway. Goldman and Hatch (2021), as cited in the main work, also examined the aetiology of alcohol-induced breast cancer, providing further support for considering alcohol consumption in discussions of breast cancer prevention. Knowledge of the relationship between alcohol

intake and breast cancer may therefore strengthen women's understanding of lifestyle-related risk. Such awareness may encourage women to reflect on their own health behaviours and become more attentive to breast changes. Consequently, awareness of alcohol-related risk may contribute to a more favourable attitude towards breast self-examination among female teachers.

Reproductive factors constitute another important group of breast cancer risk factors because reproductive history may influence a woman's exposure to endogenous hormones over her lifetime. The main research work identifies early menarche, late menopause, late age at first pregnancy and low parity as reproductive factors associated with increased breast cancer risk. These factors are important because they reflect different aspects of a woman's reproductive history and may influence the duration or pattern of hormonal exposure. The *World Cancer Research Fund International/American Institute for Cancer Research* (2021), as cited in the original work, also links reproductive characteristics to breast cancer risk. Unlike lifestyle factors such as alcohol intake, most reproductive characteristics cannot be changed after they have occurred. Nevertheless, awareness of their relationship with breast cancer may help women understand their personal risk and become more attentive to breast health. Knowledge of reproductive risk factors may therefore strengthen women's perception that breast cancer can be associated with characteristics of their reproductive history. Such understanding may encourage appropriate preventive behaviours and greater attention to breast self-examination. For female teachers, this awareness may be particularly useful because it can support both personal health decision-making and the provision of accurate health information to others.

The relationship between reproductive history and breast cancer risk has also been examined in relation to parity and age at first birth. Clavel-Chapelon (2020) reported differential effects of reproductive factors on pre- and postmenopausal breast cancer, with parity and age at first birth associated with variations in risk. This suggests that reproductive experiences may not have identical implications for all women and that the timing of reproductive events may be important when considering breast cancer vulnerability. The original research further discusses evidence concerning late age at first birth and breast cancer risk and notes the possible role of hormonal and cellular changes associated with pregnancy. Such findings emphasise the importance of helping women understand the relationship between reproductive history and breast cancer without creating unnecessary fear or misconceptions. Awareness of these factors may enable women to appreciate that breast cancer risk can arise from several interacting biological and reproductive characteristics. For female teachers, improved understanding of reproductive risk factors may therefore contribute to a more

informed perception of their individual breast cancer risk. This perception may, in turn, encourage greater attention to breast health and strengthen their attitude towards breast self-examination.

The importance of awareness of reproductive risk factors is particularly relevant among female teachers because they are adult women who may have different reproductive histories and consequently different levels of breast cancer risk. Their knowledge of reproductive risk factors may influence how seriously they perceive the need to pay attention to breast health and preventive practices. Female teachers also occupy an important position within the school environment because they interact regularly with students and may serve as sources of health information. Where teachers possess accurate knowledge, they may be better positioned to communicate appropriate information about breast cancer and encourage positive health practices among students and other women. Conversely, inadequate knowledge may limit their ability to recognise their own vulnerability and communicate reliable information to others. The main research work therefore considered knowledge of reproductive factors as one of the indicators that could influence female teachers' attitude towards breast self-examination. Examining this relationship is important because favourable attitudes may provide a foundation for greater engagement with breast health practices. It also provides an opportunity to identify areas where health education interventions may be needed among female teachers. Improved awareness of reproductive risk factors may therefore have both individual and wider educational benefits.

Although the original study examined five breast cancer risk factors, namely genetic mutation, breast density, obesity, alcohol intake and reproductive factors, the present article focuses specifically on alcohol intake and reproductive factors. This narrower focus allows for a more detailed examination of two important dimensions of breast cancer risk that are particularly relevant to women's health awareness. Alcohol intake represents a lifestyle-related and potentially modifiable risk factor, whereas reproductive factors represent biological and reproductive characteristics that may influence breast cancer vulnerability. Examining these two dimensions together provides an opportunity to consider how knowledge of different forms of risk may be associated with women's attitudes towards preventive breast health practices. The focus is particularly relevant among female teachers because of their dual role as women who need to protect their own health and educators who may influence the health knowledge of others. The study therefore seeks to establish whether awareness of alcohol intake and reproductive factors is associated with female teachers' attitude towards breast self-examination. By concentrating on these two variables, the article

provides a focused interpretation of the relationship between breast cancer risk-factor awareness and preventive health attitudes. The findings may consequently provide useful evidence for designing targeted breast cancer education programmes for female teachers in Akwa Ibom North-West Senatorial District.

2. STATEMENT OF THE PROBLEM

Breast cancer continues to be a significant health concern among women. Despite increasing awareness of cancer, some women may still have inadequate knowledge of risk factors and may not practise appropriate breast health behaviours. The main research work observes that some female teachers may have negative attitudes towards breast self-examination and may avoid examining their breasts even when facilities and information are available.

Alcohol intake is particularly important because it is a potentially modifiable behaviour. The main study notes that alcohol consumption may increase breast cancer risk and that reducing alcohol consumption can contribute to breast cancer risk reduction. Thus, inadequate awareness of the relationship between alcohol and breast cancer may limit women's understanding of their personal risk and reduce the motivation to adopt appropriate breast health practices. Reproductive factors are equally important because characteristics such as age at menarche, age at menopause, age at first pregnancy and parity may influence breast cancer risk. However, women may not always recognise these reproductive characteristics as factors associated with breast cancer.

The researcher therefore investigated whether awareness of alcohol intake and reproductive factors influences female teachers' attitude towards breast self-examination in public secondary schools in Akwa Ibom North-West Senatorial District. While the original study covered five risk factors, the present article is deliberately restricted to the two additional objectives, alcohol intake and reproductive factors, to provide a focused article.

3. RESEARCH OBJECTIVES

The main objective of the study was to examine breast cancer risk factors awareness and attitude towards breast self-examination among female teachers in public secondary schools in Akwa Ibom North-West Senatorial District. Specifically, the study sought to:

- i. determine the extent to which awareness of alcohol intake influences female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District; and
- ii. examine the extent to which awareness of reproductive factors influences female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District.

4. RESEARCH QUESTIONS

- i. What is the extent of influence of awareness of alcohol intake on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District?
- ii. What is the extent of influence of awareness of reproductive factors on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District?

5. RESEARCH HYPOTHESES

The following null hypotheses were tested at the .05 level of significance:

H₀₁: There is no significant influence of awareness of alcohol intake on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District.

H₀₂: There is no significant influence of awareness of reproductive factors on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District.

6. THEORETICAL FRAMEWORK

6.1 Somatic Mutation Theory of Carcinogenesis

The Somatic Mutation Theory of Carcinogenesis is one of the longstanding explanations of cancer development and is based on the proposition that cancer may arise from the accumulation of genetic alterations in somatic cells. The theory holds that successive mutations in the DNA of a cell can interfere with normal mechanisms controlling cell growth, differentiation and proliferation, eventually resulting in uncontrolled cellular multiplication and malignant transformation. In its classical formulation, cancer is viewed as a disease originating from a single cell that accumulates multiple mutations affecting genes responsible for regulating cell proliferation and the cell cycle. Soto and Sonnenschein (2000) describe this as the dominant paradigm that shaped much of twentieth-century cancer research, although they subsequently questioned whether mutations alone provide a sufficient explanation of carcinogenesis. Thus, the theory does not simply suggest that every mutation produces cancer; rather, particular genetic alterations that disrupt normal cellular regulation may contribute to the transformation of normal cells into malignant cells. The theory has provided an important foundation for understanding the genetic basis of cancer, including the role of inherited and acquired mutations in increasing cancer susceptibility. In breast cancer, mutations involving genes such as BRCA1 and BRCA2 illustrate the importance of genetic alterations in determining susceptibility to the disease. The theory is therefore useful for

explaining why genetic damage and exposure to certain carcinogenic agents are important considerations in breast cancer research.

The Somatic Mutation Theory is particularly relevant to the present study because alcohol intake represents a potentially modifiable exposure that may contribute to biological processes associated with carcinogenesis. Alcohol itself and, importantly, its metabolite acetaldehyde have been associated with mechanisms capable of producing DNA damage, oxidative stress and alterations in DNA repair and methylation. Contemporary evidence indicates that alcohol-mediated carcinogenesis may involve several pathways, including the production of acetaldehyde, generation of reactive oxygen species and disruption of DNA-related processes. In relation to breast cancer specifically, alcohol consumption has also been associated with changes in oestrogen levels and oestrogen-receptor pathways. These mechanisms provide a biological explanation for why alcohol consumption is considered a breast cancer risk factor. The theory therefore provides a useful framework for understanding the possible connection between knowledge of alcohol intake as a risk factor and women's perception of their susceptibility to breast cancer. In the present study, adequate knowledge of the carcinogenic implications of alcohol consumption may increase female teachers' awareness of their personal breast cancer risk. Such awareness may encourage greater attention to breast health and contribute to a more favourable attitude towards breast self-examination.

6.2 Theory of Breast Cancer

The Theory of Breast Cancer, as presented in the original research work, is historically associated with George Thomas Beatson and his pioneering investigation of the relationship between ovarian function and breast cancer in 1896. In his landmark work, Beatson investigated the effect of removing the ovaries in women with advanced breast cancer, based on the observation that ovarian function appeared to influence the behaviour of breast tissue. His work subsequently became an important foundation for understanding the relationship between ovarian hormones and breast cancer. The significance of Beatson's contribution lies in the recognition that breast tissue is responsive to hormonal influences and that changes in ovarian activity can affect breast cancer progression. His work consequently helped establish the foundation for the development of endocrine approaches to breast cancer treatment. Although modern understanding of breast cancer is considerably more complex than Beatson's original explanation, hormonal influences remain an important component of breast cancer biology. In particular, oestrogen signalling is recognised as an important factor in the development and progression of many breast cancers. The theory therefore provides a useful

historical and biological foundation for understanding why reproductive and hormonal factors are considered important when examining breast cancer risk.

The theory is particularly relevant to the present study because reproductive factors such as age at menarche, age at first pregnancy, parity and age at menopause are related to a woman's reproductive and hormonal history. These characteristics can influence the duration and pattern of exposure of breast tissue to endogenous reproductive hormones over a woman's lifetime. Women who experience certain reproductive events earlier or later than others may therefore have different patterns of hormonal exposure and consequently different levels of breast cancer risk. The relevance of Beatson's work to the present study is not that reproductive factors directly determine whether a woman will develop breast cancer, but that reproductive history forms part of the biological context within which breast cancer risk is understood. This provides a theoretical basis for examining knowledge of reproductive factors as a component of breast cancer risk-factor awareness among female teachers. When women understand that aspects of their reproductive history may be associated with breast cancer risk, they may develop a stronger perception of their personal vulnerability. Such awareness may increase their interest in breast health and encourage them to pay closer attention to changes in their breasts. Consequently, the theory provides a useful foundation for examining whether knowledge of reproductive factors is associated with female teachers' attitude towards breast self-examination.

7. METHODOLOGY

The study adopted a descriptive survey research design. The study was conducted in Akwa Ibom North-West Senatorial District. The original study involved public secondary school teachers in the district and was delimited to 159 respondents. The broader study examined five breast cancer risk factors: genetic mutation, breast density, obesity, alcohol intake and reproductive factors. For this article, only alcohol intake and reproductive factors were retained. The population and sampling procedure of the original study produced a sample of 159 female teachers. The sampling frame reported a total teacher population of 1,339 in the selected public secondary schools, from which the 159 respondents were obtained. Data were collected using the Knowledge of Risk Factor of Breast Cancer Questionnaire (KRFBCQ) and the Teachers' Attitude Towards Breast Self-Examination Questionnaire (TATBSEQ). The instruments were subjected to face validation, while the reliability test produced a Cronbach's alpha coefficient of .89. Simple linear regression was used to answer the research questions and test the null hypotheses at the .05 level of significance.

8. RESULTS

Research Question One

What is the extent of influence of awareness of alcohol intake on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District?

Table 1: Regression Analysis of Awareness of Alcohol Intake and Female Teachers' Attitude Towards Breast Self-Examination.

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.942	.888	.887	.190

Source: Field Work (2022).

The result in Table 1 shows $R = .942$, $R^2 = .888$, adjusted $R^2 = .887$ and standard error of the estimate = .190. The R^2 indicates that awareness of alcohol intake accounted for 88.8% of the variation in female teachers' attitude towards breast self-examination. The original study interpreted the influence as very high.

Research Question Two

What is the extent of influence of awareness of reproductive factors on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District?

Table 2: Regression Analysis of Awareness of Reproductive Factors and Female Teachers' Attitude Towards Breast Self-Examination.

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.705	.497	.494	.402

Source: Field Work (2022).

The result shows $R = .705$, $R^2 = .497$, adjusted $R^2 = .494$ and standard error of the estimate = .402. Thus, awareness of reproductive factors accounted for 49.7% of the variation in female teachers' attitude towards breast self-examination. The original study interpreted the influence as high.

9. TEST OF HYPOTHESES

Hypothesis One

H_{01} : There is no significant influence of awareness of alcohol intake on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District.

Table 3: Regression Analysis of Awareness of Alcohol Intake and Female Teachers' Attitude Towards Breast Self-Examination.

Model	Sum of Squares	df	Mean Square	F	p	Decision
Regression	42.412	1	42.412	1178.48	.000	Reject H ₀
Residual	5.362	157	.036			
Total	47.776	158				

Source: Field Work (2022).

The result shows $F = 1178.48$, $p = .000$. Since the p-value is less than .05, the null hypothesis was rejected. Therefore, awareness of alcohol intake had a statistically significant influence on female teachers' attitude towards breast self-examination. The model accounted for 88.8% of the variation in attitude, based on R^2 .

Hypothesis Two

H₀₂: There is no significant influence of awareness of reproductive factors on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District.

Table 4: Regression Analysis of Awareness of Reproductive Factors and Female Teachers' Attitude Towards Breast Self-Examination.

Model	Sum of Squares	df	Mean Square	F	p	Decision
Regression	35.771	1	35.771	144.42	.031	Reject H ₀
Residual	12.004	157	.081			
Total	47.773	158				

Source: Field Work (2022).

The result shows $F = 144.42$, $p = .031$. Since .031 is less than .05, the null hypothesis was rejected. Therefore, awareness of reproductive factors significantly influenced female teachers' attitude towards breast self-examination.

10. FINDINGS OF THE STUDY

The study revealed that:

- Awareness of alcohol intake had a very high extent of influence on female teachers' attitude towards breast self-examination in Akwa Ibom North-West Senatorial District.
- Awareness of reproductive factors had a high extent of influence on female teachers' attitude towards breast self-examination.
- Awareness of alcohol intake had a statistically significant influence on female teachers' attitude towards breast self-examination, with $F = 1178.48$ and $p = .000$.

iv. Awareness of reproductive factors had a statistically significant influence on female teachers' attitude towards breast self-examination, with $F = 144.42$ and $p = .031$.

11. DISCUSSION OF FINDINGS

Awareness of Alcohol Intake and Female Teachers' Attitude Towards Breast Self-Examination

The finding revealed that awareness of alcohol intake had a very high influence on female teachers' attitude towards breast self-examination. The regression analysis produced $R = .942$ and $R^2 = .888$, indicating that awareness of alcohol intake accounted for 88.8% of the variation in attitude. The hypothesis test further produced $F = 1178.48$ and $p = .000$, leading to rejection of the null hypothesis. The finding is consistent with Hasanpoor and Dehkordi (2021), whose work, as cited in the original research, identifies alcohol consumption as a major modifiable risk factor for breast cancer. The original study also cites the World Health Organization (WHO, 2021) in emphasising that reducing alcohol consumption may reduce breast cancer risk.

The finding is further supported by Aghabarari and Mohammadi (2020), who, as reported in the main research work, associated excessive alcohol consumption with increased breast cancer risk and explained that alcohol may influence estrogen-related hormonal pathways. McPherson et al. (2021) similarly reported a consistent association between higher alcohol intake and increased breast cancer risk, while also noting the possible effect of alcohol on estrogen levels and mammographic density. The finding suggests that female teachers who understand alcohol as a breast cancer risk factor may develop a more favourable attitude towards breast self-examination. Awareness may therefore encourage greater attention to personal risk and preventive breast health behaviour.

Awareness of Reproductive Factors and Female Teachers' Attitude Towards Breast Self-Examination

The study found that awareness of reproductive factors had a high influence on female teachers' attitude towards breast self-examination. The regression analysis produced $R = .705$ and $R^2 = .497$, indicating that awareness of reproductive factors accounted for 49.7% of the variation in attitude. The corresponding hypothesis test yielded $F = 144.42$ and $p = .031$. Since the p-value was less than .05, the null hypothesis was rejected. Thus, awareness of reproductive factors significantly influenced female teachers' attitude towards breast self-examination.

The finding agrees with the *World Cancer Research Fund International/American Institute for Cancer Research* (2021), which identified early menarche, late menopause, late age at first pregnancy and low parity as reproductive factors associated with breast cancer risk. The same source is cited in the original discussion as evidence that reproductive factors influence breast cancer risk. The finding is also consistent with Clavel-Chapelon (2020), whose study examined the differential effects of reproductive factors on pre- and postmenopausal breast cancer. The original research further discusses evidence showing that age at first birth and parity may be associated with breast cancer risk. The finding therefore suggests that awareness of reproductive history may contribute to a better understanding of personal breast cancer risk and may encourage female teachers to develop a more favourable attitude towards breast self-examination.

12. CONCLUSION

The study examined two important dimensions of breast cancer risk-factor awareness, alcohol intake and reproductive factors, and their influence on female teachers' attitude towards breast self-examination in public secondary schools in Akwa Ibom North-West Senatorial District. The findings showed that awareness of alcohol intake had a very high influence, while awareness of reproductive factors had a high influence on female teachers' attitude towards breast self-examination. Both influences were statistically significant at the .05 level. The study therefore concludes that improving female teachers' awareness of lifestyle and reproductive risk factors may contribute to more favourable attitudes towards breast self-examination. In particular, health education should help women understand how alcohol consumption and reproductive characteristics may affect breast cancer risk and why awareness of these factors is important to their overall breast health.

13. RECOMMENDATIONS

- i. Government and relevant health agencies should intensify breast cancer education programmes among female teachers, with specific attention to alcohol as a modifiable breast cancer risk factor.
- ii. Female teachers should be encouraged to obtain accurate information about the relationship between alcohol consumption and breast cancer and to make informed decisions concerning alcohol use.

- iii. Health educators and healthcare professionals should provide women with clear information about reproductive risk factors, including early menarche, late menopause, late age at first pregnancy and low parity.
- iv. Breast cancer awareness programmes in schools should incorporate information on both lifestyle and reproductive risk factors alongside practical breast self-examination education.
- v. Nurses, doctors and other health professionals should use teachers' meetings, workshops and school-based health programmes as platforms for sustained breast cancer education.
- vi. Government agencies and relevant non-governmental organisations should provide accessible breast cancer awareness and counselling programmes for female teachers and other women in the community. These recommendations are consistent with the broader recommendations of the original study concerning teacher retraining, health education, counselling and provision of appropriate health facilities.

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