

# Correlation between the Nurses' Health Beliefs and their Practice of Breast Self Examination

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**Abstract:** *Breast cancer is a major health problem globally and has been on the rise steadily. Early detection helps in decreasing the mortality and morbidity. Breast Self Examination (BSE) helps in early detection. The practice of BSE may be influenced by the health beliefs. A descriptive correlational research design was done to assess the relationship between the nurses' health beliefs and their practice of BSE. Data were collected from 330 staff nurses working in a tertiary care hospital. Proportionate random sampling technique was used. Data were collected using demographic proforma, practice questionnaire and Champion's Health Belief Model Scale which was self administered. The findings revealed that 5.8% had favourable health beliefs, 90.9 % had moderately favourable health beliefs and 3.3% had unfavourable health beliefs. 8.8 % had favourable practice, 39.7% had moderately favourable practice and 51.5 % had unfavourable practice of BSE. There was significant association between perceived barriers to BSE and practice and also between marital status and health beliefs. The importance of practice of BSE should be reiterated to staff nurses and necessary steps should be taken to address the concerns related to barriers to BSE for achieving favourable practice.*

**Keywords:** Nurses, Health Beliefs, Practice, Breast Self Examination (BSE), Breast Cancer

## 1. Introduction

Breast cancer is the most common cancer in women worldwide, with nearly 1.7 million new cases diagnosed in 2012 (second most common cancer overall). This represents about 12% of all new cancer cases and 25% of all cancers in women. It is the fifth most common cause of death from cancer in women according to the World Cancer Research Fund International (2012). It was also reported that the morbidity rate was about 92/100,000 population for US and 80/100,000 population for Canada. The average woman in the US has a 12.5% lifetime risk of being diagnosed with breast cancer (Messersmith, 2015). The Globocan project revealed that in the year 2012, 144,937 women were newly detected with breast cancer in India and 70,218 women died of breast cancer. It was found that for every 2 women newly diagnosed with breast cancer, one woman was dying. Now it is the most common cancer in women in India, way ahead of cervical cancer (Statistics of breast cancer in India, 2012)

Pilevarzadeh (2016) mentioned that early diagnosis of breast cancer is important in the successful treatment of the disease thereby reducing the mortality. BSE helps in early detection and thus improves the prospects for women's survival. Roth (2011) reported that The 2003 National Health Interview Survey found that women often detected breast cancers themselves, either by self examination (25%) or by accident (18%).

Erblich (2000) examined the impact of health beliefs and psychological distress on BSE frequency of healthy women. The findings of the study showed that the health beliefs especially barriers against Breast Self-Examination and low confidence in the performance of BSE were related to underperformance of BSE. Holwerda (2000) studied the relationship between the health belief model variables and the frequency of BSE among nurses. The study revealed that 30% of nurses performed BSE regularly and perceived barriers were found to be negatively correlated with frequency of BSE.

This research study is aimed to understand the health beliefs and the practice of BSE among the staff nurses.

## 2. Objectives

1. To assess the nurses' health beliefs and their practice of Breast Self Examination.
2. To determine the relationship between the nurses' health beliefs and their practice of Breast Self Examination.
3. To determine the relationship of nurses' health beliefs and their practice of Breast Self Examination with the demographic variables.

## 3. Methods

A descriptive correlational design was used. The study was conducted among nurses working in a tertiary care hospital in South India. About 330 nurses participated in the study selected by proportionate random sampling technique. Nurses who have been diagnosed or treated for breast cancer were excluded.

### Instruments

The instruments used in this research study are as follows:

- (i) Demographic proforma was used to collect information about the study participants' age, educational qualification, marital status, years of experience and history of benign breast disorders.
- (ii) Practice questionnaire – consists of items about the self-reported practices of Breast Self Examination among the nurses. The correct practice was given a score of one and incorrect was given a score of 0. Total scores were converted into percentages and interpreted as favourable practice (75-100%), moderately favourable practice (50-74.9%) and unfavourable practice (0-49.9%).

(iii) The Champion’s Health Belief Model Scale (1993) developed by Ms. Victoria Champion was used to assess the health beliefs of the nurses. This self-administered questionnaire consists of 42 items addressing the variables that are perceived susceptibility (5 items), perceived seriousness (7 items), perceived benefits (6 items), perceived barriers (6 items), confidence (11 items) and health motivation (7 items). Each variable was measured in a distinct sub-scale that examines participants’ perception of susceptibility to breast cancer, belief in the seriousness of the threat of breast cancer to themselves, benefits of Breast Self Examination, barriers to Breast Self Examination, their confidence in performing Breast Self Examination and health motivation.

A 5-point Likert scale with answers ranging from strongly disagree to strongly agree was used to assess these variables. Negative scoring was done for the items in the barrier subscale. Subscale scores were converted into percentages and interpreted as high (75-100%), moderate (50-74.9%) and low (0-49.9%). Total scores were converted into percentages and interpreted as favourable health beliefs (75-100%), moderately favourable health beliefs (50-74.9%) and unfavourable health beliefs (0-49.9%).

Champion Health Belief Model Scale is a standardised tool with documented validity and reliability. This study was conducted after obtaining permission from the concerned authorities. Data were collected after obtaining written informed consent from the nurses. A pilot study was conducted to check the feasibility of the study.

#### 4. Results and Discussion

Majority (57.3%) of the subjects were in the age group of 20 to 30 years, followed by those in the age group of 30 to 40 years (34.5%). Most of the subjects (85.5%) had completed Diploma in Nursing and the rest (14.5%) had completed BSc degree in Nursing. About 60.6% of the sample sizes were married while 38.5% were single. The years of experience as staff nurses revealed that 45.8% had 5 or less than 5 years of experience and 27.6% had more than 10 years of experience. It was found that majority (96.1%) had reported of having no history of benign breast disorders and the rest (3.9%) reported of having history of benign breast disorders.

Figure 1 shows that 8.8% had favourable practice, 39.7% had moderately favourable practice and 51.5% had unfavourable practice of BSE. A similar study done by Holwerda (2000) revealed that 30% of nurses performed BSE regularly and Tastan (2011) reported that 47.2% of nurses performed BSE regularly.

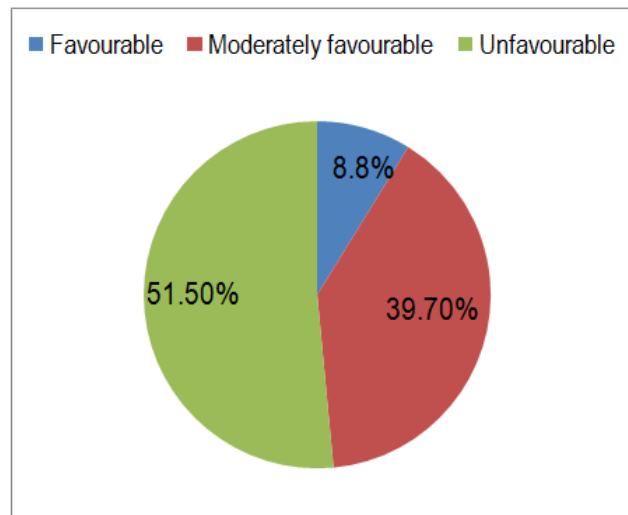


Figure 1: Distribution According to Practice of Breast Self-Examination

Figure 2 shows that 5.8% had favourable health beliefs, 90.9% had moderately favourable and 3.3% had unfavourable health beliefs.

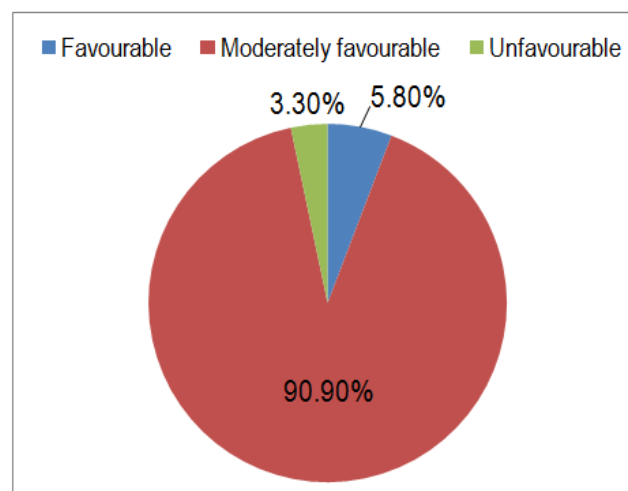
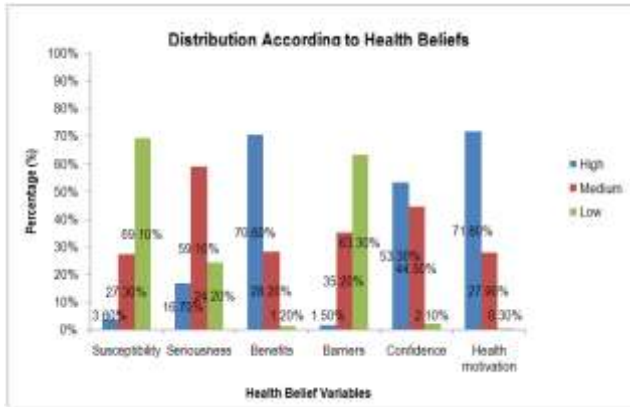


Figure 2: Distribution According to Overall Health Beliefs

Figure 3 reveals that 69.1% had low perceived susceptibility to breast cancer, 59.1% had medium perceived seriousness to the threat of breast cancer, 70.6% had high perceived benefits of Breast Self Examination, 63.3% had low perceived barriers to Breast Self Examination, 53.3% had high confidence to perform Breast Self Examination and 71.8% had high health motivation.



**Figure 3:** Distribution According to Health Belief variables

The study showed no significant association between the demographic variables (age, educational qualification, marital status, years of experience and history of benign breast disorders) and practice of BSE. There was significant association between marital status and the health beliefs ( $p = .000$ ).

The study revealed no significant association between overall health beliefs and practice of BSE. However, there was a significant association between barriers to BSE and the practice of BSE ( $p = .003$ ). This is supported by the findings of the studies by Holwerda (2000), Erlich (2000), Graham (2001), Registe (2008), Tastan (2011), Fouladi (2013) and Abolfotouh (2015) which showed that perceived barriers to BSE were related to the practice of BSE. Perceived barrier items addressed issues such as feeling funny doing BSE, causing one to worry about getting breast cancer, causing embarrassment and unpleasantness, consumption of time and lack of privacy to do BSE. There is likelihood that low perceived barriers to BSE may enhance favourable practice of BSE.

## 5. Conclusion

The study findings show that the practice of BSE among 51.5% of nurses was unfavourable and had no association with the overall health beliefs. However, there is a significant association between perceived barriers to BSE and the practice. This helps us to understand that efforts need to be taken to address the various issues concerning the barriers to BSE to enhance the practice of BSE. Ongoing in service education and continuing nursing education programmes can be conducted regarding breast cancer awareness and BSE to ensure favourable practice of BSE.

## 6. Conflicts of Interest

The authors have declared no conflicts of interest.

## References

[1] Abolfotouh, M.A., & BaniMustafa, A. A. (2015). Using the health belief model to predict breast self examination among Saudi women. Retrieved from

<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889>

- [2] Erlich, J., Bovbjerg, D.H. & Valdimarsdottir, H.B. (2000). Psychological Distress, Health Beliefs, and Frequency of Breast Self-Examination. *Journal of Behavioral Medicine*, 23(3), 277–292. doi:10.1023/A:1005510109233
- [3] Fouladi, N., & Pourfarzi, F. (2013). Beliefs and behaviors of breast cancer screening in women referring to health care centers in northwest Iran according to the champion health belief model scale. *Asian Pacific Journal of Cancer Prevention*, 14(11), 6857-62.
- [4] Graham, M. E. (2001). Health beliefs and self breast examination in black women. *Journal of Multicultural Nursing & Health*. Retrieved from file:///J:/journal%20of%20cultural%20diversity%20aper.htm
- [5] Holwerda, V. L. (2000). The Health Belief Model and Self Breast Examination in Nurses, Master Theses. Paper 498. Retrieved from <http://scholarworks.gvsu.edu/theses/498>
- [6] Messersmith, L., Singer, J., & Ciesemier, G. (2015). Utilization of the Breast Cancer Risk Assessment Tool in the Identification and Screening of Women at Increased Risk of Breast Cancer. *Journal of Women's healthcare*, 4, 259. doi:10.4172/2167-0420.1000259
- [7] Pilevarzadeh, M. (2016). Women's perspective of Breast Self Examination. *International journal of biomedical science*, 12 (3), 115-119.
- [8] Registe, M. F. (2008). The Relationship Between Health Beliefs and the Performance of Breast Self Examination Among African American Women. Thesis.
- [9] Roth, M. Y., Elmore, J. G., Yi-Frazier, J.P., Reisch, L. M., & Miglioretti, D. L. (2011). Self-detection remains a key method of breast cancer detection for U.S. women. *Journal of Womens Health*, 20(8), 1135-9.
- [10] Statistics of breast cancer in India. (2012). Breast cancer in India. Retrieved from [http://www.breastcancerindia.net/statistics/stat\\_global.html](http://www.breastcancerindia.net/statistics/stat_global.html)
- [11] Tastan, S., Iyigun, E., Kilic, A., & Unver, V. (2011). Health Beliefs Concerning Breast Self-examination of Nurses in Turkey. *Asian Nursing Research Journal*, 5(3), 151-196.
- [12] World Cancer Research Fund International. (2012). Retrieved from <http://www.wcrf.org/int/cancer-facts-figures/data-specific-cancers/breast-cancer-statistics>