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Sanah Baig

Tazeen S. Ali

Aga Khan University, tazeen.ali@aku.edu

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COMMENTARY

Evaluation of Efficacy of Self Breast Examination for Breast Cancer Prevention: a Cost Effective Screening Tool

Sanah Baig^{1*}, Tazeen Saeed Ali²

Abstract

Breast cancer is the most prevalent neoplasm among females and every year the number of associated deaths increases so that there is a dire need for implementation of cancer screening and early detection. A survey conducted by various locally organised cancer registries indicated breast cancer to be the most prevalent cancer among females and the second most common cause of cancer deaths among Pakistani women. Since Pakistani females do not generally engage in screening practices we argue that nurses and lady health workers should team up to educate women for the possible early detection of cancer using Self Breast Examination as a screening tool. In this paper, we attempt to evaluate the primary efficacy of self breast examination as an early and cost effective cancer screening measure, and to discuss the relation of community health nurses as well as the lady health workers to education of females of low income countries such as Pakistan to possibly lower the cancer burden.

Key Words: Screening - self breast examination - lady health workers - Pakistan

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Background

Breast cancer has a high prevalence especially among post-menopausal women. According to studies conducted by various government and non-government organizations; 1 in every 5 women world-wide suffers from breast cancer at some stage in her life. Researchers have found that the prevalence of breast cancer in Karachi is highest of any Asian population and a survey conducted by the Karachi Cancer Registry (Bhurgri, 2004) revealed breast cancer to be the most prevalent cancer among females and the second most common cause of cancer deaths.

Breast cancer screening has been undergoing evaluation for over 30 years and has been advocated to be effective by majority of health professionals for more than a decade. ASCO (American Society of Clinical Oncology) in 1998 set some recommendations for the screening and early evaluation of this type of cancer (Smith et al., 1998). Cancer screening is not diagnostic, rather it aids in identifying those asymptomatic individuals who have a high likelihood of developing cancer. The risk of breast cancer is high in unmarried women, infertile women, women with less than 3 children, and women who have their first child after 34 years of age. The other common risk factors for breast cancer are heavy radiation exposure, immunodeficiency, and exogenous estrogen administration. Women having family history of breast cancer (especially in first degree relatives:

mother, sisters, etc); or history of exposure to radiation, any other breast diseases, early menarche or late first pregnancy; or any female over age 40 should consult their physician or a trained community health nurse. They should learn how to perform breast screening which is called SBE (Self Breast Examination) to be able to identify their breast cancer early and get the proper treatment in time.

Introduction

SBE involves self-inspection and palpation of the breast and axilla (Baxter et al., 2001). The absolute scientific validity of this type of screening is still under question however, the results are sufficiently promising for promotion in some contexts. Since 1998, ASCO has been stressing upon the need of self breast examination on monthly basis to augment early detection, thereby, reducing the catastrophic results of more advanced disease. Some might argue that this recommendation is not based on any scientific facts; but still it has so far proven to be effective.

There are three levels of cancer prevention. Primary prevention is actually avoiding the disease causing elements in the first place if they are known e.g., quitting smoking before getting lung cancer. Secondary prevention is picking up an early clue- BEFORE the problem actually becomes symptomatic. That means the cancer has already started in the body, but the sign and symptoms have not appeared or

1 Research Office 2 School of Nursing, Aga Khan University, Correspondence : Writer-in-Residence, Research Office, Juma Building First Floor, Aga Khan University, Postal Address: Aga Khan University P.O. Box 3500, Stadium Road, Karachi, 74800 Pakistan. Fax : (92 21) 493 4294 Email: sanah.baig@aku.edu

felt by the person. Tertiary prevention is preventing complications of an established cancer e.g., preventing metastasis from cancer.

Associated Risk Factors

To understand the importance of screening, one must recognize the risk factors for breast cancer. Exogenous estrogens are reported to cause breast cancer; the scientific validity of this implication has been under study since the 1980s. Oral contraceptive (OC) pills are thought to cause breast cancer, but the scientific validity of this association is still under study (Anonymous, 1989). According to experts the implication of dose-effect relationship does not reduce the use of OC pills globally (Anonymous, 1991). There are many formulations of OC pills which include combined OC (containing estrogen and progesterone hormones both) and the progesterone only pills (POP.) Women in Pakistan taking progesterone only pills received a benefit in the form of reduced risk for benign breast tumors and ovarian and endometrial cancers, and in some cases osteoporosis (Shafi et al., 2001). Some experts argue that it is not the dose of estrogen that matters, but it is the duration of OC pill intake that makes it a risk factor for cancer (Norsa'adah et al., 2005). This idea is contradicted by other research carried out in the West. Based on studies conducted in UK; the International Medical Advisory Panel and the British Committee on Safety of Medicines agreed in 1989 that no change in oral contraceptive prescribing was necessary (Anonymous, 1989). In Pakistan, where contraceptive pills are the easiest and most economical means of contraception, it becomes even more pertinent to educate women about cancer screening because of this common risk factor.

According to the few studies as found in our literature search, there is a link of abortion with the development of cancer, and breast cancer could be the one causes. One review on breast cancers stated that there is an increased risk of abortion with prolonged use of postmenopausal hormone replacement therapy (Okobia and Bunker, 2005), although this is still controversial (Feminist Women's Health Center, 2005).

A research project conducted in Malaysia (Norsa'adah et al., 2005) showed that among patients with breast cancer the majority of females were unmarried or had their first child after 30 years of age. The number of children, age at first conception, and breast feeding practices were seen as the favorable aspects which provided protection against breast cancer. In Pakistan, where the average woman is married and conceives at an early age the incidence of breast cancer should normally be lower if the latter mentioned criteria are applicable. This, however, is not so. If one compares the research findings of the Malaysian project with the Pakistani scenario there is quite a contrast. The middle and higher social strata of Pakistan emphasize more education, and females belonging to these classes get married at a relatively later age, thus the incidence of breast cancer should be higher in them as well. Quite regrettably, it is not

so as stated earlier, quite a number of studies done in Pakistan revealed that the lower class has a higher prevalence than the upper and middle class.

Certainly, at this point many readers will be thinking skeptically that in a country such as Pakistan where a majority of the people do not even have basic health care available to them, talk about screening and seeing a doctor at even the slightest indication of cancer seems far fetched. The simple answer to this is to answer the question: does the disease discriminate between the upper or lower social strata? Sadly it does not! A study conducted by the Department of Oncology, Allama Iqbal Medical College Lahore (Aziz et al., 2003), revealed that women in the low socioeconomic group had a high prevalence of breast cancer and it seems to be on the rise among Pakistani women (Aziz et al., 2004). Firm adherence to social and religious taboos is held responsible for this high prevalence. Papers published on Muslim beliefs and breast screening practices revealed reluctance on part of the women to be a part of the screening programs due to various religious and social issues involved, especially the element of purdha (Hoare et al., 1994; Choudhry et al., 1998). It's therefore important that women be educated about self breast examination around the time of their first menstruation. This would give them an effective means to screen breast cancer in early stages and to prevent physical and psychological trauma, not to mention economic burden.

A paper published in the Canadian Medical Association Journal (Baxter et al., 2001) mentioned that the most effective means to implement SBE as a screening tool was provision of information, and technical illustrations and demonstrations by skilled personnel. When women trained for SBE with silicon models the results showed marked improvement in screening ability. In Pakistan, this type of training could be given to health professionals such as nursing and ancillary staff who are more involved with patients at the primary level.

With the implementation of the Prime Minister's health care plan and deployment of LHW (Lady Health workers) in 1994, provision of basic health facilities is now available to the masses to some extent. LHWs are trained to identify symptoms and thereby make referrals to the BHU (Basic Health unit) of that particular area. In a study conducted by a team of health professionals from Ziauddin Medical University, Aga Khan University, and University of Adelaide, Australia (Asfar et al., 2002) revealed that most referrals made for female patients by the LHWs were due to symptoms pertaining to the reproductive system. This reflects the reality that LHWs mainly encountered maternal and child health diseases and would themselves benefit from additional education so that they could counsel their female patients. Patients taking part in this study also exhibited more respect and trust for LHWs who were married than those who were young and unmarried. This illustrates a social element pertaining to Pakistani society that married females talk more freely about certain health issues (especially those related to the reproductive system) to other married females. This fact

is also visible in the hospital environment where female patients respond better to female doctors and even more so to paramedic staff. Keeping this view in mind, it is strongly felt that female nursing staff as well as the LHWs, be trained to educate the female populace they encounter. Awareness could be given at the national level health worker program, as the LHWs give monthly visits to females of their assigned areas. Through these visits, women can be taught the simple method of SBE and the importance of such screening for early detection. The other cadres who could conduct health education and reinforce SBE are nurses and midwives. These awareness campaigns could only be done when the ancillary staff themselves have good knowledge and training about this issue.

Conclusion

Having said this, the overall effectiveness of SBE will eventually come down to the compliance of the individual. Factors such as age, educational background, marital status, cultural norms, perceptions about breast examination, and perceptions about familial history and susceptibility to cancer all need to be addressed in educating females about SBE screening.

There is a need to incorporate SBE in nursing, midwifery and health worker curriculum. In addition, keeping in view the emerging breast cancer pattern in Pakistan, there is a need of specialized nurses and health workers. It is apparent that the Government and non-government organizations should now step forward to implement programs whereby lady health workers and nurses collaborate in education of the female population about "Self Breast Examination" - at stake is a possible reduction in the staggering high incidence of breast cancer. "Healthy nurturers nurture a healthy society."

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