



OPENING MINDS:  
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DEVELOPMENT

## The Reasons for Delayed Presentation of Breast Cancer: A Descriptive Study at the Teaching Hospital, Kandy

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### 1 INTRODUCTION

Breast cancer is a disease that causes cells in the breast to change and grow out of control (American Cancer Society, 2015). It is the most common diagnosed cancer and the leading cause of cancer deaths among women, accounting 25% of all cancer cases and 15% of all cancer deaths among females (Ferlay, *et al.*, 2012). According to a report published by the International Agency for Research on Cancer (Ferlay, *et al.*, 2012), almost 50% of patients with breast cancer and 58% of breast cancer deaths occur in developing countries. The problem has become a burden in developing countries due to the delayed presentation of breast cancer, thus increasing the mortality rates (Khakbazan *et al.*, 2014).

Delayed presentation of breast cancer is defined as delay between first detection of symptoms and first medical consultation. Prolong delay is usually taken as intervals greater than 12 weeks (Montazeri *et al.*, 2003). A Delay of more than 12 weeks is associated with more advanced stages of cancer and reduced survival (Unger & Saldaña *et al.*, 2015). According to a review study on delay in presentation of breast cancer done by Caplain (2014), prognosis of the breast cancer and mortality is increased by 24% for a delay of more than six months and by 13% for a

delay more than three months. Because the main reason is, by the time subject seeks medical attention, the cancer has developed to advanced stages.

This leads to increased psychological stress of patients and use of more toxic treatments such as chemotherapy agents (American Cancer Society, 2015). Therefore, the delayed diagnosis of breast cancer can have a negative effect on quality of life. Literature highlights that delayed presentation of breast cancer is influenced by knowledge, attitudes, socio-economic and psychological factors of the patient (Khan *et al.*; Iqbal, 2014).

Therefore, understanding the perceived factors that influence delayed presentation of breast cancer is crucial in order to increase the awareness of women about breast self-examination, seeking of health care and to develop specific prevention strategies. Accordingly, the purpose of this study is to describe the perceived factors related to delayed presentation of breast cancer among patients admitted to female oncology wards at Teaching Hospital, Kandy.

### 2 METHODOLOGY

A quantitative, descriptive study was



carried out during the period of February to March 2017 in the Female Oncology Wards and the Clinic at the Teaching Hospital, Kandy. A total of 128 patients between 16-51 years age who were diagnosed as delayed presentation of breast cancer on admission during 2015 to 2016 at the cancer unit were purposively recruited for this study.

Data was collected from volunteered patients using a pre-tested self-administrated questionnaire. Information, including knowledge and attitudes, socio-economic and psychological factors influencing delayed presentation of breast cancer, was collected. Content validity of the questionnaire was assured by referring to the standard literature and the subject experts. Ethical clearance was obtained from the Ethics Review Committee, Teaching Hospital, Kandy. Informed written consent was obtained from each participant prior to the study. Data analysis was done with descriptive statistics using Statistical Package for the Social Sciences (SPSS).

### 3 RESULTS AND DISCUSSION

The response rate was 94% (120).

**Table 1:** Demographic characteristics of the participants (n=120)

Demographic character		Frequency	Percentage
Age group (years)	16 - 20	0	0.0
	21 - 30	03	2.5
	31 - 40	22	18.3
	41 - 50	48	40.0
	≥ 50	47	39.2
Civil status	Married	64	53.3
	Divorced/ Widowed	48	40.0
	Unmarried	08	6.7
Ethnicity	Sinhalese	48	40.0
	Tamil	34	28.4
	Muslim	30	25.0
	Other	08	6.6

Perceived factors were discussed under three main categories: knowledge and attitudes, socio-economic factors and psychological factors.

The Majority of the study population (79.2%) was above 40 years, showing that they were a high-risk group vulnerable to breast cancers. Among the participants, 53.3% were married, 40.0% divorced or widowed, while 6.7% were single (Table. 1). Although a large number of participants were married, significant number of divorced or widowed women (40%, 48) have delayed presentation of breast cancer. Kumari and Goonawardena (2011) reported that widowed and divorced women have significant delay ( $p=0.037$ , 95% Confidence Interval (CI)) for presentation of breast cancer compared to married women. Similar findings have been also reported by Montazeri *et al.* (2003). Significant delayed presentation of breast cancer among divorced or widowed participants was mainly due to the lack of self-motivation or lack of motivation by relatives to seek medication.

#### 3.1 Knowledge and Attitudes

The study findings indicated that 35% (42)



of participants had poor knowledge about early symptoms of breast cancers while 28.8% (34) did not know about the breast cancer screening tests. Lack of awareness due to the painless nature of the breast cancer was the main reason for delayed presentation (36%, 43). About 16.6% (19) of delayed cases were presented as wasting time on alternative medicines and home remedies. Cases that presented delay due to misbeliefs or negative attitudes about cancer and cancer treatments were 5% (06) of the participants.

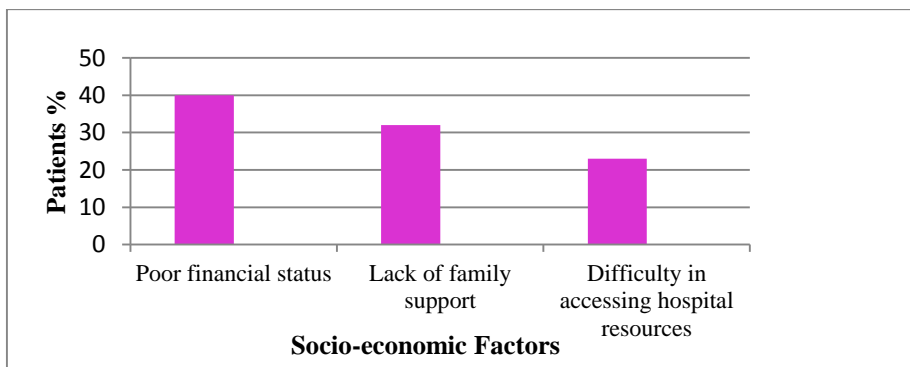
### 3.2 Socio-economic Factors

Delayed presentation for health care (40%, 48) was prominent among participants with monthly income less than 35,000 Sri Lankan Rupees (LKR). In

addition to that lack of family support (31.6%, 38) and living in a rural area with poor cancer screening or treatment facilities (22.5%, 27) were further highlighted (Figure. 1). Kumari and Goonawardena (2011) also observed that more than half of the patients in their study had income less than 10,000 LKR. Rathnayake, Halyale, Tharanga, Herath and De Silva (2017) reported that 56% patients with breast cancer had monthly income less than 10,000 LKR while 22% were unemployed.

In this study, majority of the study population was living in urban areas. However, 22.5% (27) participants from rural area were observed. Kumari and Goonawardena (2011) has reported that distance from patient's residence to the first contact health care and time taken to seek treatment have significant association ( $p=0.003$ , 95% CI).

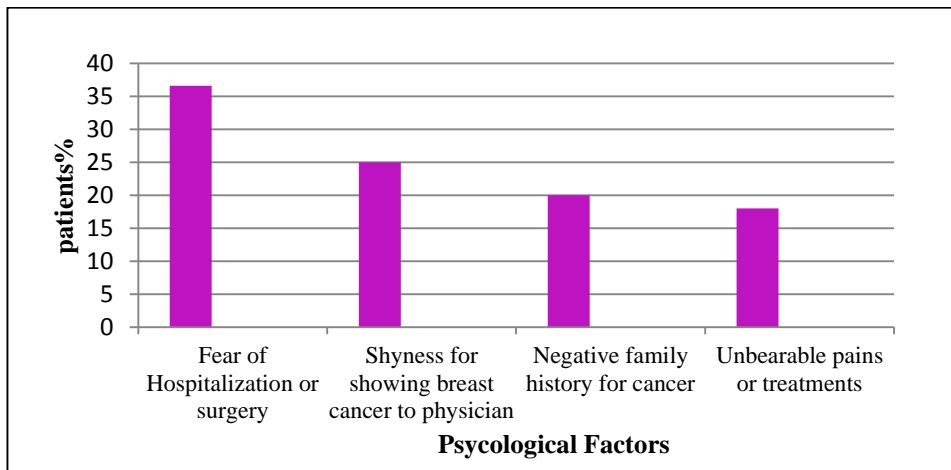
**Figure 1:** Influence of socio-economic factors on delayed presentation of breast cancer



### 3.3 Psychological Factors

As shown in the Figure 2, 36.6% (44) participants stated the fear of hospitalization and surgery as the reasons for delayed presentation. However, contribution of other psychological perceived factors such as, shyness for showing breast cancer to physician (25%,

30) and fear of unbearable pains or treatments (18.3%, 22) were also revealed. Meechan, Collins, and Petrie (2003) have found that distress on discovery of the breast cancer has significantly affected the delay in presentation of breast cancer.



**Figure 2:** Influence of psychological factors on delayed presentation of breast cancer

#### 4 CONCLUSIONS AND RECOMMENDATIONS

Study findings highlighted that lack of knowledge regarding the symptoms of breast cancer, poor financial status, lack of family support and fear of hospitalization and surgery were commonly perceived factors for delayed presentation of breast cancer. Special attention is required on these areas when developing the prevention strategies to prevent delaying presentation of breast cancer. Further studies should be extended to a larger population including other hospitals to clearly identify the factors influencing delayed presentation of breast cancer in Sri Lanka. According to the findings of the current study we recommend public awareness programmes about breast cancer highlighting the importance of early detection of breast cancer through breast self-examination, and early seeking of health care.

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