

IMPACT OF SOCIAL AND DEMOGRAPHIC FACTORS ON DIAGNOSTIC DELAY OF BREAST CANCER IN PAKISTAN: A CASE STUDY OF FAISALABAD DISTRICT

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Abstract: This study was carried out at PINUM Cancer Hospital, Faisalabad to measure the socio demographic factors which leads to diagnostic delay in breast cancer patients. It was cross sectional study and study duration was six months. Sample size of this study was 190. Female with 18 years of age or older, had primary malignant breast cancer were included. The majority of the respondents i.e. 77.37% were housewives. The time to diagnose the breast cancer was found 1 to 2 years in majority of respondents i.e. 66.3%. Moreover, it was found that majority of the breast cancer patients i.e. 67.89% were on stage III. The results also revealed that different factors were affecting to reach tertiary care hospitals for breast cancer treatment e.g. lack of awareness (94.21%), fear of surgery (85.8%) and fear of expensive treatment (95.79%). The study concluded that owing to their assumptions and mistaken perceptions about the illness and its treatment, a large number of women with breast cancer in Pakistan avoid presentation. A risk factor for delayed diagnosis is inability to recognize the signs of breast cancer. In order to inform the focus groups and eliminate the obstacles found in the report, organized strategies are required by the public health community to increase awareness of breast cancer, its signs and symptoms, risk factors and clinical progress.

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INTRODUCTION

Cancer is one of the most serious health problems in many areas of the world (1), a major cause of death in economically industrialized and second-largest in developing countries. Cancer is a worldwide leading cause of morbidity and mortality. Initially thought to be a disease primarily limited to the western world, however, the incidence of cancer is increasingly rising in developing countries. About half of all new cancer cases in 2008, and two-thirds of the 7.6 million cancer deaths occurred in low- and middle-income countries, according to figures. It is estimated that by 2030, 60 per cent of the worldwide cancer cases will be from less developed countries (2).

Breast cancer accounts for 23 percent of the total cases of cancer, and sadly its incidence as a widespread female malignancy tends to rise worldwide (3). Breast cancer poses a

significant danger to women's health worldwide. Every year over one million people worldwide earn breast cancer diagnoses. It is estimated that at some point of her life 1 in 9 Pakistani women will develop breast cancer. It is a serious public health issue in Pakistan, as its prevalence is alarmingly high and mortality is the highest of any Asian population (4). Pakistan has the highest breast cancer prevalence among Asian countries, accounting for nearly 34.6 percent of all female affecting cancers. The Pakistani incidence is more than twofold higher than that of neighboring countries. According to the Karachi Cancer Registry, the annual age-standardized breast cancer prevalence is 69.1 which is consistent with the North American and European rates (5).

Understanding patient interactions is key to designing effective clinical strategies to resolve those concerns. The primary purpose of this research was therefore to use time scales to record different

processes faced by patients prior to access / referral to medical centers to determine signs and symptoms suspected of breast cancer. In addition, it also measured the time to visit medical centers for testing and treatments to determine the breast cancer diagnosis. The reasons for preferring originally a traditional medicinal method (e.g. homoeopathic, Hikmet, or metaphysical treatment) and eventually mainstream science-based medicine have been discussed. Even this analysis tests the length of breast cancer patients' time before reaching diagnostic facilities.

AIMS AND OBJECTIVES

To investigate cross-sectional behavior, reproductive and socio-demographic risk factors for breast cancer in the district of Faisalabad, to recognize the factors influencing breast cancer health services in Faisalabad District, to examine the mix of different socio-demographic and therapeutic factors on the period of patients with breast cancer before accessing testing facilities, and to evaluate the mechanisms patients undergo in the Faisalabad district prior to access / reference to testing centers for the assessment of signs and symptoms suspected of breast cancer.

Material and Methods

This research was quantitative; a self-administered questionnaire was the tool to analyze the accessing healthcare facilities for patients experiencing signs or symptoms of breast cancer in Faisalabad District. A descriptive cross sectional research design was used in this research. This study was conducted in PINUM Cancer Hospital, Faisalabad. This study was conducted in 3 months after approval of synopsis through simple random sampling technique. As per calculated by WHO sample size calculator, the sample size of this study was 190. The patients were eligible if they were 18 years of age or older, had primary malignant breast cancer. The women who were not willing to

take part in this research were excluded. Informed consent form was taken from the women with breast cancer prior to the study. A self-structured questionnaire was used to collect the data from the respondents. The data for the multiple linear regression models was analyzed using SPSS 17.

RESULTS

There were total 190 participants in this study. Results showed that majority of the respondents i.e. 64.74% were more than 40 years, 30.0% were between the age of 31-40 years and only 5.26% were between the age of 25-30 years and majority of the respondents i.e. 77.37% were housewives, while on the other hand 16.84% were working women and only 5.79% were unmarried. Results of family history showed that a vast majority of the respondents i.e. 82.6% don't have any family history of breast cancer and 17.4% respondents have family history of breast cancer. Majority of the respondents i.e. 73.68% were poor, 21.05% were middle class and 5.26% were high class. History of physical activity showed that majority of the respondents i.e. 64.74% were less active, 29.47% were moderate and 5.79% were more active and majority of the respondents i.e. 74.21% were normal, 22.63% were addicting drugs/medicines and only 3.16% were smoking.

BMI of the respondents showed that majority of the respondents i.e. 54.7% were having the normal body weight, 26.3% were overweight, 13.7% were underweight and 5.3% were obese and majority of the respondents i.e. 36.32% were sleeping appropriate 8-10 hours a day, while the sleeping hours of 34.74% respondents were less than 6 hours, sleeping hours of 20.0% respondents were moderate, 5.79% respondents were having longer sleeping hours i.e. more than 10 hours and only 3.16% respondents were sleeping hours insomnia.

When respondents were asked about pregnancy and results showed that majority of the respondents i.e. 41.58% respondents experienced abortions, 37.89% experienced miscarriages, 14.21% experienced full term pregnancy, 3.68% were infertile and only 2.63% were unmarried and breastfeeding results showed the majority of the respondents i.e. 75.26% duration of breast feeding was less than 2 years, on the other hand the breastfeeding duration of 22.11% respondents was 2 years and 2.63% respondents do not experienced the breast feeding due to different reasons i.e. not married, no baby while contraceptive history showed the majority of the respondents i.e. 73.2% do not use oral contraceptives and 26.8% used the oral contraceptives. Patients were divided according to their stage of breast cancer and majority of the respondents i.e. 67.89% were experiencing the stage-III breast cancer, 27.37% were facing stage-IV and 4.74% were facing stage II and majority of the respondents i.e. 66.3% diagnose the breast cancer between 1 to 2 years, 18.4% diagnose 3 to 5 years, 9.5% diagnose < 1 year and 5.8% diagnose in more than 5 years.

There were assessed the hurdles to reach the healthcare services by the patients and majority of the respondents i.e. 73.2% were agree that the follow-up the treatment endeavors other than surgery was a hurdle to reach the healthcare services. On the other hand, 13.7% remain neutral, 6.8% were strongly agree and 6.3% were disagree in this regard and majority of the respondents i.e. 70.0% were strongly agree that the lack of awareness was a hurdle to reach the healthcare services. On the other hand, 24.21% were agree, 3.68% were disagree, 0.53% remain neutral and only 1.58% were strongly disagree in this regard. Patients were also asked surgery related questions and majority of the respondents i.e. 43.7% were agree that the

fear of surgery was a hurdle to reach the healthcare services. On the other hand, 42.1% were strongly agree, 8.4% remain neutral and 4.8% were disagree in this regard and also asked about spiritual treatment and majority of the respondents i.e. 39.5% were disagree that the ancestors' and self-belief in spiritual treatment was a hurdle to reach the healthcare services. On the other hand, 37.4% were agree, 13.7% remain neutral and 9.5% were strongly agree in this regard.

Table 1 indicates that there was a strong association between age of the respondents and their reaching to the breast cancer healthcare facilities. It can be seen that the p value is <0.05 which indicates the strong association between the two variables.

Table 2 indicates that there was a strong association between occupation of the respondents and their reaching to the breast cancer healthcare facilities. It can be seen that the p value is <0.05 which indicates the strong association between the two variables.

Table 3 indicates that there was a strong association between family history of the respondents and their reaching to the breast cancer healthcare facilities. It can be seen that the p value is <0.05 which indicates the strong association between the two variables.

Table 4 indicates that there was a strong association between socioeconomic history of the respondents and their reaching to the breast cancer healthcare facilities. It can be seen that the p value is <0.05 which indicates the strong association between the two variables.

Table 5 indicates that there was a strong association between physical activity & lifestyle of the respondents and their reaching to the breast cancer healthcare facilities. It can be seen that the p value is

<0.05 which indicates the strong association between the two variables.

DISCUSSION:

Our research highlighted some reasons that are responsible for the delays in patients with breast cancer in Faisalabad, Pakistan. In the course of breast cancer diagnosis and treatment, numerous causes are known. The women found their breast modifications reversible and innocuous, and they were comfortable because of the painless lump. The Low literacy in our sample resulted in misunderstanding and triggered the appearance of other delay variables. Cultural values have made it impossible for the population to recognize the importance of schooling for women. This research underlines the fact that schooling will reduce the delays dramatically. Less-educated patients are unable to negotiate efficiently about their health conditions in a sufficient amount of time. A research study analyzed delays in 12 countries and observed that less time was correlated with higher education (6). The population's belief that cancer is incurable and that care is not available makes the lives of victims of breast cancer shorter. In later times, both indifference and illiteracy contribute to the introduction of sickness. It is necessary to diagnose high-risk patients in a timely manner in developing countries such as Pakistan and to treat new cases with curative intention. A U.S. observational research identified financial difficulties affecting self-delay in 17 per cent of breast cancer patients below age 40 (7). This study found that different factors including age, occupation, socioeconomic history, physical activity, lifestyle, BMI, sleep routine, pregnancy/miscarriage, duration of breastfeeding, using oral contraceptives, area of residence and distance from tertiary care hospital are the associated with accessing the healthcare facilities for diagnosing and treatment of breastfeeding cancer among women in district

Faisalabad. Other study has found jobs as an obstacle to the phase of breast cancer diagnosis and treatment (8). A job is a function of educated and self-reliant people: working women make their own choices and face less social and cultural obstacles. In a research study also observed that breast cancer patients working by Iranian women experienced less delays (9).

This research found that all the demographic factors were associated with the delayed diagnosing of breast cancer patients. The majority of the respondents i.e. 77.37% were housewives. This study also found the majority of the respondents' age (64.74%) was more than 40 years. The breastfeeding duration was also a factor as majority with the percentage of 75.26% breast feeding duration was less than 2 years. The results also revealed that different factors were affecting to reach tertiary care hospitals for breast cancer treatment e.g. lack of awareness (94.21%), fear of surgery (85.8%) and fear of expensive treatment (95.79%).

CONCLUSION:

Owing to their assumptions and mistaken perceptions about the illness and its treatment, a large number of women with breast cancer in Pakistan avoid presentation. A risk factor for delayed diagnosis is inability to recognize the signs of breast cancer. In order to inform the focus groups and eliminate the obstacles found in the report, organized strategies are required by the public health community to increase awareness of breast cancer, its signs and symptoms, risk factors and clinical progress. Improving the identification of symptoms to promote prompt presentation can boost survival in this population. Such efforts could, in the long term, lead to an increase in the rate of survival and a decrease in the total burden of disease in Pakistan.

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Table 1: Association between age of respondents and their reaching to the healthcare facilities

Model	Sum of Squares	df	Mean Square	<i>F</i>	<i>Sig</i>
Regression	1.464	1	1.464	9.257	0.003*
Residual	29.733	189	0.158		

*P<.05Levelof significance

Table 2: Association between Occupation of respondents and their reaching to the healthcare facilities

Model	Sum of Squares	df	Mean Square	<i>F</i>	<i>Sig</i>
Regression	4.509	1	4.509	31.765	0.000*
Residual	26.688	188	.142		

*P<.05LevelofSignificance

Table 3: Association between Family History of respondents and their reaching to the healthcare facilities

Model	Sum of Squares	df	Mean Square	<i>F</i>	<i>Sig</i>
Regression	.809	1	.809	5.006	0.026*
Residual	30.388	188	.162		

*P<.05LevelofSignificance

Table 4: Association between socioeconomic history of respondents and their reaching to the healthcare facilities

Model	Sum of Squares	df	Mean Square	<i>F</i>	<i>Sig</i>
Regression	9.185	1	9.185	78.447	0.000*
Residual	22.012	188	.117		

*P<.05LevelofSignificance

Table 5: Association between Physical Activity& Lifestyle of respondents and their reaching to the healthcare facilities

Model	Sum of Squares	df	Mean Square	<i>F</i>	<i>Sig</i>
Regression	1.942	2	.971	6.208	0.002*
Residual	29.255	187	.156		

*P<.05LevelofSignificance

Table 2: Frequency distribution of pain intensity

Pain intensity	Frequency	Percent
I have no pain at the moment	1	1.0
mild pain at the moment	19	19.0
moderate pain	37	37.0
severe pain	42	42.0
moderate but comes and goes	1	1.0
Total	100	100.0

Table 3: Frequency distribution of lifting disability

Lifting disability	Frequency	Percent
I can lift heavy weights without extra pain	5	5.0
I can lift heavy weight but it causes extra pain	31	31.0
I can lift very light weights	37	37.0
I can't lift or carry at all	27	27.0
Total	100	100.0

Table 4: Frequency distribution of working ability

Working ability	Frequency	Percent
I can do as much work as I want (no pain)	7	7.0
I can only do my usual work but no more	31	31.0
I can do most of my usual work but no more	46	46.0
I can't do my usual work	15	15.0
I can hardly do any work at all	1	1.0
Total	100	100.0

Table 5: Frequency distribution of reading disability

Reading disability	Frequency	Percent
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I can read as much as I want with no pain.	26	26.0
I can read as much as I want with slight pain in my neck	27	27.0
I can read as much as I want with moderate pain in my neck	39	39.0
I can't read as much as I want because of moderate pain in my neck	5	5.0
I can't read as much as I want because of severe pain in my neck	3	3.0
Total	100	100.0