Knowledge and Awareness on Risk Factors of Breast Cancers Among Homemakers

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ABSTRACT

Globally the major cause of cancer associated death among women is breast cancer. Reports showed that all over world approximately 1.15 million women are affected by breast cancer. Lack of awareness and late diagnosis are the prime reasons behind the raising mortality associated with breast cancer. Breast cancer is becoming the principal cause of mortality worldwide and has greater impact in developing countries. The aim of the present study is to access the knowledge and awareness on risk factors of breast cancers among homemakers. About 150 participants were involved in the study. Self-administered questionnaire of close ended questions was prepared related to risk factors, symptoms, diagnostic modalities, prevention and treatment of breast cancer and distributed among homemakers through online survey forms. In the present study about 62.7% were aware of risk factors of breast cancer and 37.3% were not aware. Regarding the information source of breast cancer risk factors, most of the participants (43.3%) responded to from school or college education. The majority of the participants (60.7%) were aware that breast cancer is among the most prevailing cancers among women. Regarding the risk factors of breast cancer, 36% responded to obesity, 10% responded to advanced age and 54% responded to family history of breast cancer. The majority of the participants (56.7%) responded age as a major risk factor. In the present study, knowledge and awareness on the breast cancer, risk factors among homemakers is moderate.

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INTRODUCTION

Breast cancer is characterized by the uncontrolled growth of the cells within the breast. There are many types of breast cancer. Predominantly breast cancers begin in the lobules and ducts. The prime cause of cancer associated death among women globally is breast cancer. The reports showed that approximately over 1.15 million women are affected with breast cancer worldwide each year. The ignorance and late diagnosis of disease are the main reasons behind the increased mortality. The prime reason for the escalating mortality is ignorance and delayed diagnosis (Akhtari-Zavare, 2011). Globally breast cancer is the principal cause of mortality and

has greater effects in developing countries (Gan, 2019). Breast cancer is regarded as one of the most common cancers (Shinde and Kadam, 2016). Early diagnosis of this cancer plays a key role in decreasing the mortality and outcome (Pengpid *et al.*, 2014). The key elements associated with the increase the risk of breast cancer include inherited mutations and previous family history (Alharbi, 2012).

Lack of physical activity also contributes to obesity, which increases the risk for various cancers (Shukri, 2016). Thyroid cancer is the most widespread endocrine malignant cancer (Ma, 2019). Glioma is the prime cause of cancer in adolescent people and it accounts for about 80% of all malignant tumours (Li, 2020). Naturally occurring medicinal plants can inhibit the growth of various cancers (Rengasamy, 2018). Antioxidants have the potential to reduce the risk of cancer (Ramya *et al.*, 2018). Adiponectin is considered to be one of the key factors for obesity and it is believed to be an important link of the connection between obesity and breast cancer (Mohan *et al.*, 2015).

Participating in activities towards early detection of cancer, to identify effective situations for displaying screening behaviors like Mammography, Breast self-examination, to conduct health training programs are the fundamental responsibilities of health professionals in early diagnosis of breast cancer. Breast self-examination (BSE), is the done by visual examination of breast and also done by palpation to find out any symptoms or abnormalities. Performance of BSE is associated with earlier clinical staging, smaller tumor size and increased five year survival rates (Gray, 1990). Breast cancer is regarded as a prime cause of death in post-menopausal women, among all the malignant diseases, which accounts for 23% of all cancer deaths (Akram, 2017). BSE is recommended by American cancer society for early detection of breast cancer (Mardela *et al.*, 2017). Hence it is of utmost importance to educate people to make awareness on breast cancer, the early diagnosis measures and risk factors. The aim of the present study is to access the knowledge and awareness on risk factors of breast cancers among homemakers.

MATERIALS AND METHODS

A descriptive cross-sectional survey was conducted among homemakers in the age group of 18-45 years to access their knowledge and awareness on breast cancer risk factors. Simple convenient random sampling was used. A total of 150 home makers were involved in the study. Self-administered questionnaire of close ended questions was pre-

pared related to risk factors, symptoms, diagnostic modalities, prevention and treatment of breast cancer and distributed among homemakers through an online survey platform google forms. Demographic details were also included in the questionnaire. The responses were collected, tabulated in excel sheet and analysed. Data was analysed with SPSS software version 22.0. Descriptive statistics as percent were calculated to summarize the data. The Pearson Chi-square test was done in comparison with the age group of participants. P-value <0.05 is considered as statistically significant. Finally, the analyzed results were represented as pie charts and bar diagrams.

RESULTS AND DISCUSSION

The survey questionnaire was completed by 150 homemakers. In the present study about 62.7% were aware of breast cancer and 37.3% were not aware [Figure 1]. Regarding the source of information about the breast cancer risk factors, the majority of the home makers (43.3%) responded to school or college education, 4.6 % responded as television, 12.5% responded as newspaper, 20.67% responded to friends/family and 18.67% responded to social media [Figure 2]. 60.7% of the participants were aware that breast cancer is prevailing among all cancers in women [Figure 3]. When asked about the breast cancer risk factors, 36% responded to obesity, 10% responded to advanced age and 54% responded to family history [Figure 4].
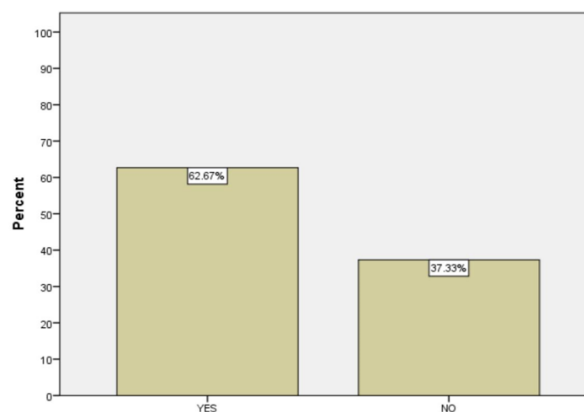

Figure 1: Bar chart representing percentage distribution of awareness on breast cancer.

The majority of the participants (56.7%) responded age as a major risk factor [Figure 5]. It is interesting to see that 55.3% of the participants have done BSE) [Figure 6]. Regarding the reason for breast self-examination,26% of participants have done BSE on doctors' advice and 50% of participants have done BSE to prevent breast cancer in the future [Figure 7]. When asked about the awareness of diagnostic modalities, 83.3% of participants were aware of
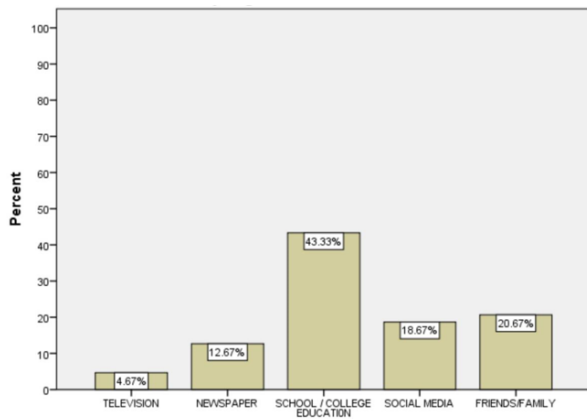
Figure 2: Bar chart representing percentage distribution of source of information about breast cancer.
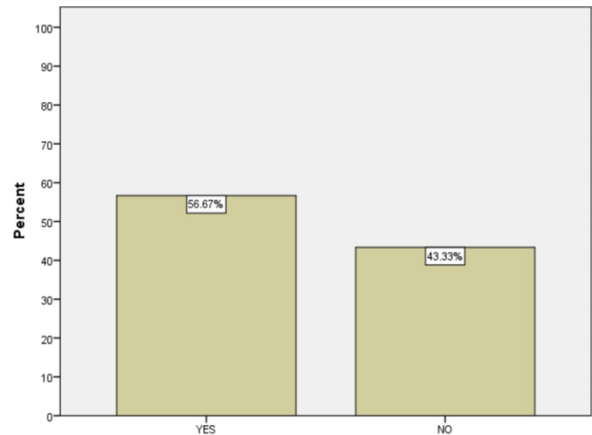

Figure 5: Bar chart representing percentage distribution on the knowledge of age as a major breast cancer risk factor.
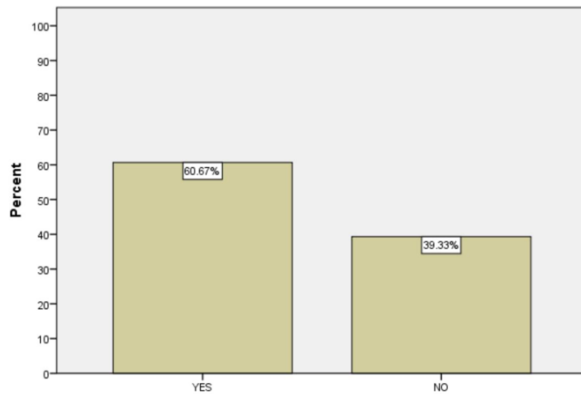

Figure 3: Bar chart representing percentage distribution of knowledge of the participants about prevalence of breast cancers in women.
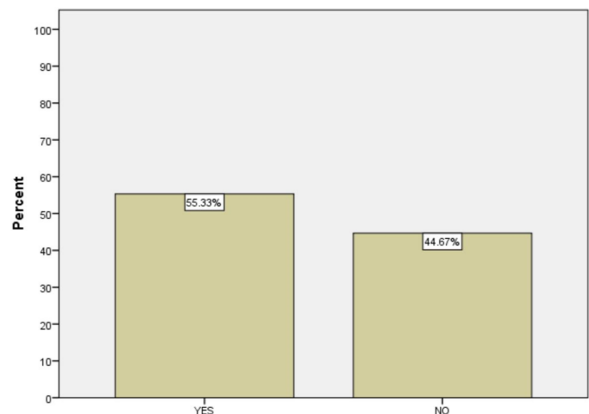

Figure 6: Bar chart showing the percentage distribution of practice of breast self-examination (BSE).
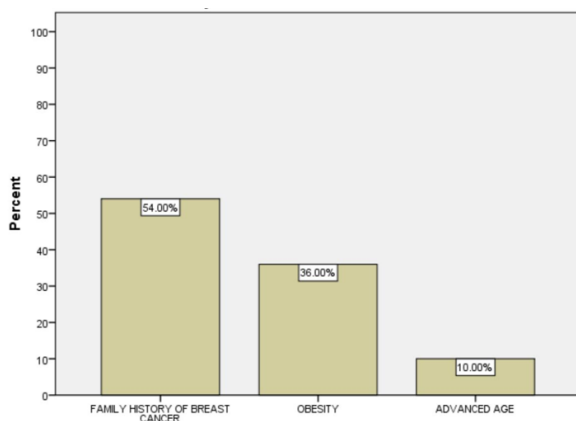

Figure 4: Bar chart representing percentage distribution of knowledge on various risk factors of breast cancer.
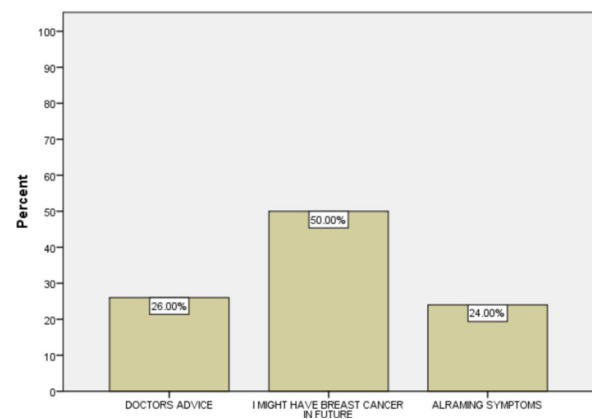

Figure 7: Bar chart representing percentage distribution on reasons for BSE.
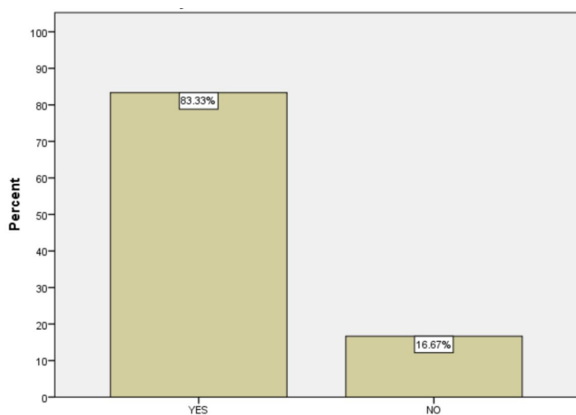
Figure 8: Bar chart representing percentage distribution of awareness on mammography.

Figure 9: Bar graph representing frequency distribution of association on awareness of breast cancer and age group using chi-square test.

Figure 10: Bar graph representing frequency distribution of association of knowledge of source of information regarding breast cancer and age group using chi-square test.
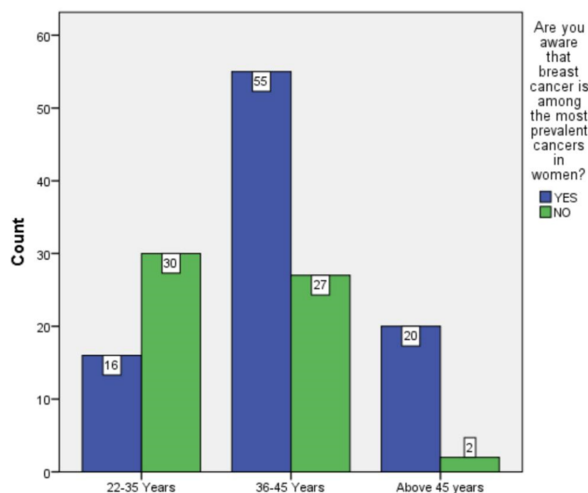

Figure 11: Bar graph representing frequency distribution of association of knowledge on prevalence of breast cancer and age group using chi-square test.
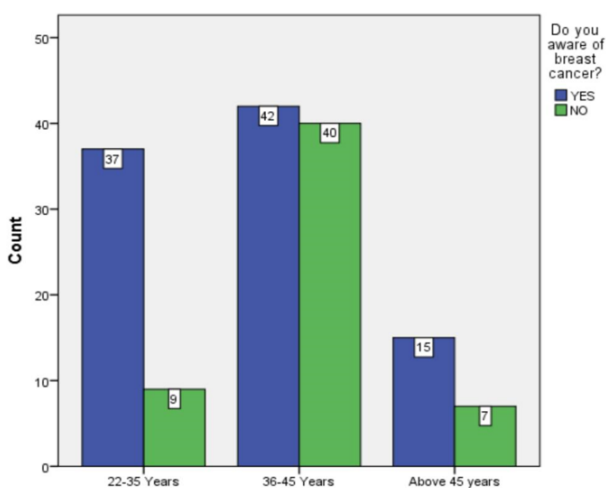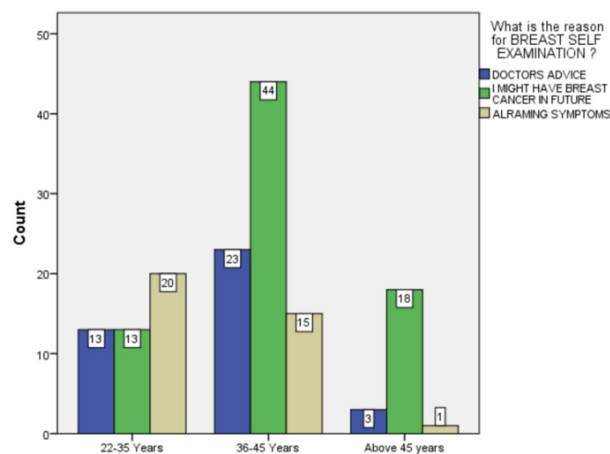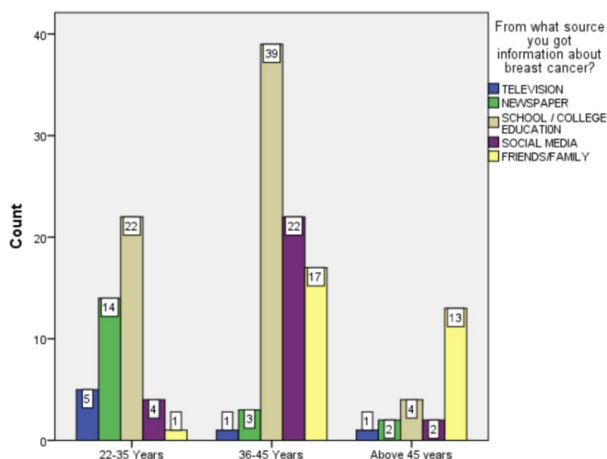

Figure 12: Bar graph representing frequency distribution of association of knowledge on breast cancer risk factors and age group using chi-square test.

mammography [Figure 8]. Pearson Chi-square value was done in comparison with the age group of the homemakers. The participants in the age group of 36-45 years (42 participants) were well aware of the breast cancer risk factors (p-value - 0.004) [Figure 9]. Majority of the respondents aged 36-45 years (39 participants) were responded as school/ college education as the source of information (p-value - 0.000) [Figure 10]. 55 participants aged 36-45 years were well aware that breast cancer is the most prevalent among all cancers in women (p-value - 0.000) [Figure 11]. Majority of 43 homemakers aged 36-45 years have good knowledge on breast cancer risk factors (p-value - 0.001) [Figure 12]. The respondents of 36-45 years age group were well aware of age as a risk factor of breast cancer, but it is not statistically significant (p-value - 0.089) [Fig-
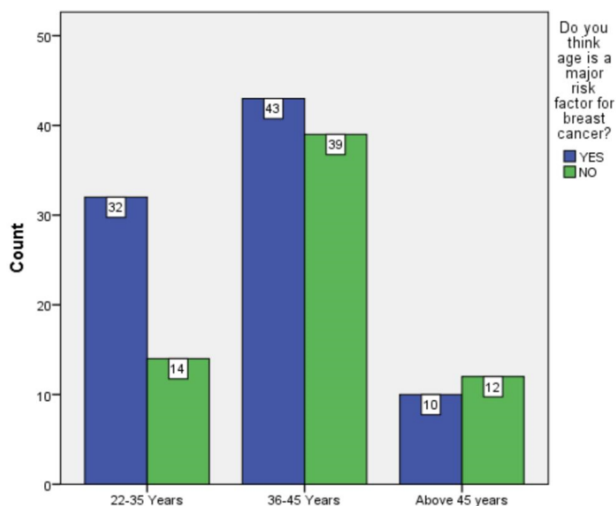
Figure 13: Bar graph representing frequency distribution on association between awareness of age as a risk factor of breast cancer and age group using chi-square test.
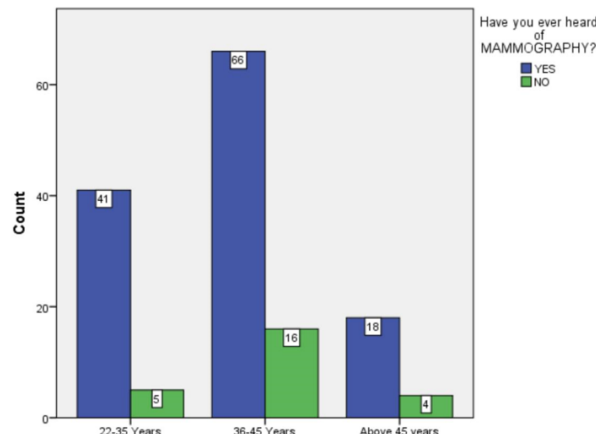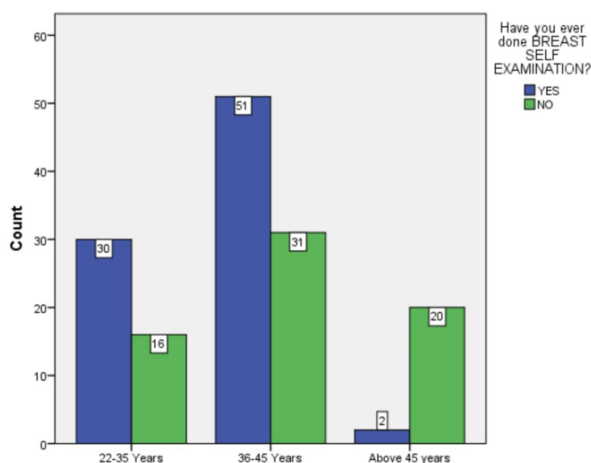

Figure 14: Bar graph representing frequency distribution of correlation of practice of BSE and age group using chi-square test.
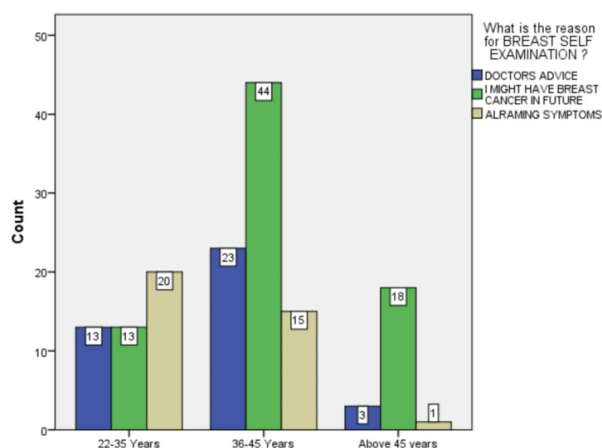

Figure 15: Bar graph representing frequency distribution of association of knowledge on reasons for BSE and age group using chi-square test.

Figure 16: Bar graph representing frequency distribution of association of awareness on mammography and age group using chi-square test.

ure 13]. Also, majority of the homemakers aged 36-45 years have done BSE (p-value - 0.000) [Figure 14], and have good knowledge on BSE (p-value - 0.000) [Figure 15]. The 36-45 years age group of participants were well aware of mammography, however the difference is not statistically significant (p value - 0.443) [Figure 16]. Hence the results revealed that the homemakers aged 36-45 years age group had very good knowledge and awareness on the risk factors of breast cancer. Overall finding of our study is knowledge and awareness on risk factors of breast cancer among homemakers was satisfactory.

The occurrence of breast cancer is rising rapidly worldwide. It is the most prevailing cancer among women and is becoming a serious health challenge. Natural products are used widely nowadays to avoid the various side effects caused by carcinogenic drugs (Menon *et al.*, 2016; Rengasamy *et al.*, 2016). The use of traditional and alternative medicine in various diseases including cancer is documented in many studies (Ponnulakshmi *et al.*, 2019; Wu, 2019). Previous studies have demonstrated that 4-shogaol from ginger may be a novel anticancer agent for the treatment of metastasis in breast cancer (Chen, 2019). Garcinol has also shown strong activity against breast cancer and leukemia (Jainu *et al.*, 2018). Bionanotechnology has a pivotal role in the development of a novel therapy in the treatment of cancer (Ke, 2019; Wang, 2019).

In the previous study done by Mamoona et al, 70% of the participants were aware of breast cancer, which is similar to the present study. Regarding the source of information, in the present study, the most of the homemakers got information from school, college education whereas in the study conducted by

Jay H Lubin, television was the major source of information regarding breast cancer (Lubin, 1981). In the study conducted by Roonjha, about 69 (65.7%) participants had heard about BSE. Forty one (50.5%) participants know how to do BSE and 53 respondents (50.5%) performed BSE in their lifetime (Roonjha *et al.*, 2020). The study by Monninkhof et al proved that postmenopausal breast cancer is associated strongly with physical inactivity (Monninkhof *et al.*, 2007). In another previous study 80.3% of respondents were aware that females are at risk of breast cancer and 70.6% of them agreed that early detection and operation in early stages are effective issues and 30.8% of participants know about the BSE. About 59.9% of respondents performed BSE, but only 12.9% of respondents have practiced BSE regularly (Motamedi *et al.*, 2012). In another study 94.3% of the respondents were aware that this is the most prevailing cancer among women and 52.6% of participants never did BSE which is similar to our present study (Behbahani, 2014). In the study by Azubuike et al about 90.5% were aware about breast cancer, but only about 49.71% were aware of breast cancer risk factors (Azubuike and Okwuokei, 2013). The limitation of our study is very small populations and we didn't use any diagnostic modalities and in the future studies can be done on large populations and they can use diagnostic modalities for better interventions in the results.

In Figure 9, Among all the age groups, the respondents of 36-45 years age group were well aware of breast cancer (Pearson chi-square test value-11.086, p value - 0.004 <0.05). In Figure 10, Among all the years, the respondents of 36-45 years age group got the information through school/ college education (Pearson chi-square test value- 56.37, p-value -0.000 <0.05). In Figure 11, The respondents of 36-45 years age group were well aware that breast cancer is among the most prevailing cancers among women (Pearson chi-square test value-22.758, p value - 0.000 <0.05). In Figure 12, The respondents of 36-45 years age group had good knowledge on breast cancer risk factors (Pearson chi-square test value- 18.456, p value - 0.001<0.05). In Figure 13, The respondents of 36-45 years age group were well aware of age as a risk factor of breast cancer, but it is not statistically significant (Pearson chi-square test value- 4.840, p value - 0.089 >0.05). In Figure 14, The 36-45 years age group of participants had a good practice of BSE (Pearson chi-square test value-22.415, p value - 0.000 <0.05). In Figure 15, The home makers aged 36-45 years had good knowledge on BSE (Pearson chi-square test value-22.392, p-value - 0.000

(<0.05). In Figure 16, The 36-45 years age group of participants were well aware of mammography, however the difference is not statistically significant (Pearson chi-square test value- 1.627, p value - 0.443 >0.05).

CONCLUSION

Most of cancer can be prevented if it is detected at the early stage, but most cancers are diagnosed at the advanced clinical stages only. In the present study, Knowledge and awareness on risk factors associated with breast cancer among homemakers is moderate. For further augmentation, awareness should be created through various programs regarding the breast cancer risk factors, BSE and suggest the public be aware of breast cancers.

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