Abstract

The core objective of the study was to find out the knowledge, attitude and practices of women in the general population and also to investigate the significant role of media awareness campaigns in each aspect of KAP among women. A total number of n=375 women of three renowned universities of southern Punjab were selected through simple random sampling technique. Data was collected through a self-constructed questionnaire comprised of socio-economic status and knowledge, attitude and practices section in their respective educational institutes. Findings indicated that media campaigns had established good knowledge and satisfactory attitude towards breast cancer, but these campaigns are proved less significant in convincing people for screening their breast without any prominent symptoms. This study concluded that media awareness campaigns are significant in providing knowledge and establishing good attitude but less effective in providing knowledge about the importance of screening practices among women of the general population.

Key Words: Attitude, Breast Cancer, Knowledge, Practices, Media Campaigns, Women

Introduction

Globally, breast cancer has been perceived as a leading cause of death among women. In Pakistan, it has been estimated that breast cancer statistics would be increased up to 23.1% during the year of 2020, and these are estimated 60.7% in 2025 (Zaheer et al., 2019). Begum (2018) identified the reason for these increased statistics is late identification of the disease when have been directly linked with lack of availability of knowledge about the symptoms of breast cancer. To address this issue and to provide proper knowledge about the symptoms of breast cancer, different media campaigns are organized, which provided proper knowledge, symptoms and strategies for staying healthy in all over the world. In Nigeria, Wogu et al. (2019) stated that civil society organizations and interlinked agencies have boarded on different media programs through a distinct mechanism such as TV, radio programs, newspaper and social media to assist women regarding the awareness of cancer comprised of precautionary and curative measures. These campaigns have been proved fruitful to the general population.

Many researches have been conducted in Pakistan to investigate the role of mass media in providing awareness about breast cancer. Some of them reported growth and descent of media campaigns on breast cancer. While others have focused the relationship between knowledge, attitude and practices with the background construct of media campaigns working on different websites to provide knowledge about symptoms and to provide knowledge regarding the practices for screening and preventing (Wogu et al., 2019; Nelson, 2013; Okorie, 2013). These campaigns were started with the aim to make the foundation for clarifying breast cancer as a public health issue because a country with limited facilities usually suffers due to various barriers comprising lack of identification of breast cancer as a public concern, the paucity of specialized health care practitioners and most important social and cultural impediments associated with women (Raza et al., 2012). The success of the media campaigns can be analyzed through knowledge, attitude and practices among women in the general population. Knowledge about breast cancer is important because of the lack of knowledge about

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breast cancer can lead to an increase in the severity of the disease. Heena et al. (2019) surveyed about the knowledge and awareness of breast cancer among women and authors reported that when cancer is identified at early stages, it proves good in reducing morbidity and mortality.

Screening is the best way to early detect the breast cancer if any women find bosoms or lump in the area of underarm or around nipples in this way self-examination of breast and mammography are supposed healthy methods. Knowledge further includes the changes in nipple shape and size, pain in one of the breasts, discharge from the nipple, redness of breast skin (Amin et al., 2020). On the other hand, attitude towards breast cancer is also an important predictor of the success of media campaigns about the disease Gilani et al. (2010) investigated the attitude of general women about breast cancer in which Gilani et al. found that they would go for a medical doctor if they found any symptom of breast cancer immediately within a day while some women reported that they would go for spiritual healing, but few of them does not go with aforementioned means they reported that they would not do anything to make them safe because of affordability and sense of shame for their families. Furthermore, In India, Dahiya et al. (2018) emphasized the possible practices of women, for example, regular breast examination, frequency of breast cancer examination once or twice in a month or year and also investigated the reasons for not practising breast cancer examination. With advancement and ease of availability of social media, after keeping consideration on all the arguments and claims and keeping the view of the present risk of breast cancer of every 1 out of 9 women, there is need to identify the role of awareness campaigns in providing knowledge about breast cancer and after having the knowledge through campaigns what knowledge general women have? What they think about the right way to treat breast cancer and what practices they practice to make them safe from breast cancer in Pakistan. Henceforth, there is a need to conduct a study to evaluate the strength of breast cancer awareness media campaigns among the women of the general population and also to investigate the perceived reasons for not practising breast screening among the women of Pakistan.

Objectives of the Study
1- To find out the socio-economic status of the women
2- To analyze the knowledge attitude and practices of women in the light of media awareness campaigns of breast cancer
3- To investigate the highly influential aspect of KAP in terms of media awareness campaigns among women

Significance of the Study
This study will guide relevant agencies concerned with the eradication of breast cancer in Pakistan and Pakistan in particular to assess the breast cancer media campaigns, the contents they display and provides knowledge for probable modification. Findings of the study are aspired to give information to health care practitioners that will silhouette their learning and awareness program on this hot issue.

Theoretical Framework

Agenda Setting Theory and Framing Theory
Agenda setting theory (Lee, 2016) postulate that social media is the leading predictor of transferring knowledge and awareness about critical issues from media agendas to public agendas and it influences the point of view of people regarding the most concerning issues of the present time. Henceforth, social media can play a vital role in delivering knowledge about awareness, preventive and curative means of breast cancer to the public. It fuels the public’s curiosity through impression framing (Chong & Duckman, 2007). To further explain impression framing, framing theory postulated that media emphasizes attention on particular scenarios and then put them in the mechanism of meaning. Media organizes and displays events and concerns in a way that public makes their choices which influence the views, attitude and intended behaviors of people as it associates a specific meaning and interpretation of any concern (Wogu et al., 2019) while comparing these assumptions with the scenario spreading knowledge about breast cancer, social media campaigns provide meaningful knowledge regarding the symptoms of breast cancer and consequences if the symptoms are ignored which leads to mortality. Therefore,
the aforementioned theories provide framework adapted by the current study to investigate the knowledge, attitude and practices among women of the general population in the light of social media campaigns in Pakistan.

**Material and Method**

A cross-sectional research design was utilized to investigate the knowledge, attitude and practices regarding breast cancer among women of Southern Punjab, Pakistan. About 14,997 registered female’s university students were the universe of the study. By following the aforementioned scenario author of the study design this study.

**Participants and Procedure**

A sample size of the study n=375 was determined by Krejcie and Morgan table (1970) for known population size determination recommended by Ashraf et al. (2020) from three renown universities, i.e., Bahauddin Zakariya University Multan, Islamia University Bahawalpur and Ghazi University, Dera Ghazi khan. Female students of these renowned universities of southern Punjab were approached from natural and social sciences department priory assessed by Ashraf et al. (2019) by using a simple random sampling technique. Those females’ students who use social media on a regular basis with no breast cancer history participated in this study.

**Measures**

Data was collected through a self-constructed questionnaire based on four parts. The first part of the questionnaire was comprised of socioeconomic status, i.e., age, level of education, monthly family income, information about social media campaigns of breast cancer and family history of breast cancer.

Knowledge about breast cancer after watching the social media campaigns was comprised of perceived changes in the size of the nipples, Pulling in nipples, abnormal pain, discharge from the nipples, redness, nipple rash while attitude was measured by the felt risk of being a victim of breast cancer, breast cancer can be preventive, self-examination is improper way, no reason for breast examination, preferences of female doctors for examination, early detection methods, personal hygiene and practices were measured through the frequency of breast cancer examination and reason were asked for not practising breast cancer examination. All these constructs were detected from the preceding studies of Wogu et al. (2019), Amin et al. (2020) and Heena et al. (2020).

**Statistical Analysis**

The researcher used Statistical package for social sciences (SPSS-21) for coding, recoding, transforming the acquired responses through frequency distribution tables. While knowledge, attitude and practices in the light of social media campaigns were firstly measured through frequency and percentage and secondly influential effect of media campaigns in establishing KAP among women was assessed through regression analysis.

**Data Analysis**

**Descriptive Statistics**

**Table 1. Distribution of the Subjects with Respect to their Personal Profile and General Perception about Breast Care Awareness Media Campaigns**

| Items                      | Categories          | F (%)   |
|----------------------------|---------------------|---------|
| Age                        | 20-30               | 202(53.9)|
|                            | 30-40               | 92(24.5)|
|                            | >40                 | 81(21.6)|
| Level of education         | Masters             | 10(2.7)|
|                            | BS                  | 230(61.3)|
|                            | M.Phil.             | 135(36)|
| Monthly family income      | 10,000PKR-40,000PKR | 172(45.9)|
|                            | 41,000PKR-70,000PKR | 70(18.7)|
The above-mentioned table depicts the socio-economic status, breast cancer history, awareness about social media campaigns about breast cancer and family. Majority of subjects (202; 53.9%) were the age of 20-30 years, (230; 61.3%) were the students of BS in different departments, (172; 45.9%) reported their monthly family income between 10,000PKR-40,000PKR, (218; 58.1%) reported that they have had a family history of breast cancer, (289; 77.1%) of the subjects had a history of breast cancer screening, (211; 56.3%) watched social media campaigns on breast cancer awareness and (215; 57.3%) reported that social media campaigns provide proper knowledge about breast cancer symptoms, the importance of screening, mechanism of screening and guide about the preventive behavior regarding the prevention of breast cancer.

### Table 2. Knowledge about Breast Cancer in the Light of Media Campaigns

| Items                  | Categories       | F (%)        |
|------------------------|------------------|--------------|
| Change in nipple size  | Yes              | 218(58.1)    |
|                        | NO               | 155(41.9)    |
| Pulling in nipple      | Yes              | 220(58.6)    |
|                        | No               | 155(41.3)    |
| Pain in armpit         | Yes              | 289(77.1)    |
|                        | No               | 86(22.9)     |
| Dimpling of breast skin| Yes              | 164(43.7)    |
|                        | No               | 211(56.3)    |
| Discharge from nipple  | Yes              | 233(62.1)    |
|                        | No               | 142(37.9)    |
| Lump in the breast     | Yes              | 201(53.6)    |
|                        | No               | 172(45.9)    |
| Nipple rash            | Yes              | 108(28.8)    |
|                        | No               | 267(71.2)    |
| Redness in breast skin | Yes              | 218(58.1)    |
|                        | No               | 157(41.9)    |

n=375, f= frequency, %= percentage

The above-mentioned table shows the frequency of the subjects with regard to their knowledge about their gained knowledge through media campaigns of breast cancer. Majority of the respondents (218, 58.1%) reported...
that media campaigns gave them the awareness that change in nipple size can be one of the symptoms of breast cancer, (220, 58.6%) reported that pulling in the nipple is the sign of breast cancer, (289, 77.1%) mentioned that pain in armpit could be the result of breast cancer, (211, 56.3%) marked that dimpling of the breast cancer is not the symptom of breast cancer, (233, 62.1%) reported that discharge from the nipple could result into breast cancer. Furthermore, (201, 53.6%) stated that lump in the breast is the symptom of breast cancer, (267, 71.2%) reported that nipple rash is not a symptom of breast cancer and lastly, (218, 58.1%) reported to yes in the way that redness in breast skin is a major symptom of breast cancer.

**Table 3. Attitude about Breast Cancer in the Light of Media Campaigns**

| Items                                      | Categories | F (%) |
|--------------------------------------------|------------|-------|
| Every woman is at risk of breast cancer    | Yes        | 222(59.2) |
|                                            | No         | 153(40.8)  |
| Breast cancer can be cured                 | Yes        | 296(78.9)  |
|                                            | No         | 79(21.1)   |
| Self-examination cannot detect abnormalities| Yes        | 160(42.7)  |
|                                            | No         | 215(57.3)  |
| I found no reason to examine my breast     | Yes        | 294(78.4)  |
|                                            | No         | 81(21.6)   |
| Would do self-examination if I came to know about benefits | Yes        | 170(45.3)  |
|                                            | No         | 205(54.7)  |
| Women prefer female doctors for breast examination | Yes        | 196(52.3)  |
|                                            | No         | 179(47.7)  |
| If there are no symptoms, there is no need for breast examination | Yes        | 263(70.1)  |
|                                            | No         | 112(29.9)  |
| Early diagnose does not influence treatment | Yes        | 175(46.7)  |
|                                            | No         | 200(53.3)  |
| Personal hygiene prevents breast cancer    | Yes        | 188(50.1)  |
|                                            | No         | 187(49.9)  |
| Early diagnosis guarantees the prolonged life | Yes        | 225(60)    |
|                                            | No         | 150(40)    |

n=375, f=frequency, %=percentage

The above-mentioned table shows the distribution of the respondents with respect to their attitude towards breast cancer in the light of breast cancer awareness media campaigns. Majority of the respondents (222, 59.2%) reported to yes that every woman is at risk of breast cancer, (296, 78.9%) reported to yes in the way that breast cancer can be cured, (215, 57.3%) women mentioned yes that self-examination of the breast cannot detect the abnormalities, (294, 78.4%) reported to yes that they did not have any reason for examining their breast, (205, 54.7%) reported to no in the way that they would start to examine their breast if they would know the benefits, (263, 70.1%) reported to yes that if they found no symptoms, there would be no need for them to examine their breast, (200,53.3%) reported no that early diagnose does not influence treatment, (188, 50.1%) reported yes that personal hygiene could prevent breast cancer and (222,60%) reported that early diagnose and treatment is the guarantee of prolonged life.

**Table 4. Practices for Breast Cancer**

| Items                                      | Categories | F (%) |
|--------------------------------------------|------------|-------|
| The practice of breast cancer examination  | Once in a month | 41(10.9) |
|                                            | Once in 2 months        | 59(15.7) |
|                                            | 3-5 times in a year     | 101(26.9) |
|                                            | Once or twice a year    | 118(31.5) |
|                                            | Never                 | 56(14.9) |

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| Items | Categories             | F (%) |
|-------|------------------------|-------|
| Reason for not practising breast cancer examination | Unaware of the need | 58(15.5) |
|        | Don’t have any breast problem | 104(27.7) |
|        | Don’t think I should    | 91(24.3) |
|        | Don’t feel like doing it| 74(19.7) |
|        | Don’t know how to examine | 48(12.8) |

\(n=375\), \(f=\)frequency, \(\%=\)percentage

The above-mentioned tables show the practices regarding breast cancer prevention. Majority of the women (118, 31.5%) reported that they examine their breast once or twice in a year, (101, 26.9%) mentioned that they examine their breast 3-5 times in a year, (59, 15.7%) reported that they examine their breast one in two months, (56, 14.9%) mentioned that they never examined their breast and (41, 10.9%) mentioned that they examine their breast once in a month. Furthermore, when women were asked about the reason for no examining breast, then 104(27.7%) reported that they did not have any breast issue, (91, 24.3%) mentioned that they did not think that they should examine, (74, 19.7%) stated that they did not feel like doing the breast examination, (58, 15.5%) stated that they were unaware of the need of breast examination and lastly, (48, 12.8%) women stated the reason for not examining their breast was that they did not know how they can examine their breast.

**Inferential Statistics**

**Table 5.** Regression Model of Knowledge, Attitude and Practices in the Light of Media Campaigns Regarding Breast Cancer Awareness

| Dependent   | Knowledge | Attitude | Practices |
|-------------|-----------|----------|-----------|
|             | SE        | B        | SE        | \(\beta\) | SE        | \(\beta\) |
| Media Campaigns | .112 | .257 | .075 | .551 | .098 | .051 |
| \(\Delta F\)  | 26.28 | 161.4 | .978 |
| R            | .257* | .551* | .051* |
| \(R^2\)      | .066 | .303 | .003 |
| \(\Delta R\) | .064 | .301 | .000 |
| P            | .000 | .000 | .323b |

\(n=375\), \(SE=\) Standard error, \(\beta=\) Beta coefficient, \(p<.000\)

The above-mentioned table shows the results of the regression model examining the significance of the media campaign with respect to knowledge, attitude and practices among women. The value of \(\Delta F=26.28\), \(R=.257*\), \(R^2=.066\) shows the significance of \(p<.000\) impact of media campaigns on knowledge of breast cancer among women, on the other hand, the value of \(\Delta F=161.4\), \(R=.551*\) and \(R^2=.051*\) shows the significance of \(p<.000\) in attitude towards breast cancer in the light of media campaigns and lastly, the value of \(\Delta F=.978\), \(R=.051*\) and \(R^2=.003\) shows the \(p<.323\) which demonstrated that media campaigns do not influence the practices of women regarding breast examination.

**Discussion and Conclusion**

Knowledge attitude and practices (KAP) play a vital role in the early diagnosis of the best handling of breast cancer. Levels of knowledge and attitude of women and their thinking about preventive practices in terms of screening methods and reasons for not screening are the significant factors for preventing breast cancer among the general population of women. Henceforth, this study was conducted to investigate the KAP in the light of media awareness campaigns of breast cancer among women of Pakistan. The second objective of the study was the determination of the significant influence of media campaigns on KAP.
Our findings regarding the knowledge about breast cancer show that among all n=375 overwhelming of the respondents were well known about the symptoms of breast cancer as they have mentioned that they carefully observe and watch the media campaigns of this hot issue of Pakistan which is dangerous for women’s survival. These findings were directly proportional to the findings of Heena et al. (2020) who discovered good and satisfactory knowledge about the symptoms of breast cancer among female health care professionals. Furthermore, findings of another cross-sectional study conducted in Malaysia shown that through media campaigns women of the general population become more familiar with the symptoms of breast cancer (Wogu et al. 2019; Mazor et al., 2010).

Subsequently, findings of the present study demonstrated that women tend to have a positive attitude regarding every woman is at risk of breast cancer; it can be treated, early detection can lead to efficient treatment, personal hygiene can prevent them from breast cancer. All these findings indicated that media awareness campaigns had established a positive attitude among women of the general population towards breast cancer. These findings were consistent with the findings of Amin et al. (2020) in which they found that women of the present era have access to social media through their mobile and their laptops anyone can get the knowledge about any aspect in few seconds in this way, media campaigns are proved fruitful for the establishing a good attitude regarding breast cancer.

After having the results of knowledge and attitude regarding breast cancer, this study discovered diverse information that women were less likely to involve in breast cancer preventive screenings as they found that no problem in their breast, they did not know the right way to examine their breast and furthermore they do not feel like doing it. In this way, this study evaluated that even after the establishment of media campaigns, women of the general population are not motivated towards their breast examination. In this way, Abdel-Aziz et al. (2017) and Amin et al. (2020) found the same contradiction between knowledge, attitude and practices regarding breast cancer among the general population of women in Saudi-Arabia. The reason for such contradiction could be a socio-cultural barrier in which women feels it uncomfortable to screen the private part of their body and also there is a gap between women of general population and patients of breast cancer. This could be improved through providing counselling and providing right and authentic sources of breast cancer awareness and preventive manners because many of the fake and unauthentic data is available for people who use social media and contradiction in their contents can lead to the misperception among the women.

Practical Implications and Suggestions for Future Studies

This study will be helpful for policymakers, academicians and media scholars as it provides basic knowledge regarding the assessment of launched media awareness campaigns regarding breast cancer in the establishment of knowledge, attitude and practices of the general population of women. As this study provided a framework that media awareness campaigns are successful in delivering right knowledge among the women, establishing a positive attitude towards the treatment and preventive mechanism to keep them safe from breast cancer but media campaigns are less efficient in convincing people to go for screening to lessen the risk factor. These findings provide the foundation for future campaigns for making convincing content which would increase the ratio of breast examination among women of the general population. Future studies should be conducted on illiterate women living in the rural areas of Pakistan to further assess the efficiency of breast cancer awareness media campaigns.
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