



## Media's role to Promote Breast Cancer Awareness Amongst Women in Pakistan

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**Abstract: Background:** Breast cancer is a major health concern for women in Pakistan, with low levels of awareness and early detection leading to poor outcomes. **Methods:** This quantitative study aimed to investigate the role of mass media in promoting breast cancer awareness and knowledge among women, using the theoretical frameworks of the Health Belief Model and Cognitive Dissonance Theory. A diverse group of women aged 18-50 were surveyed, with over 200 responses collected in English and Urdu. **Results:** Findings showed that while mass media could be effective in raising public health awareness, digital media is more effective than traditional media in providing knowledge and promoting self-examination practice. In particular, digital media was more effective in promoting breast self-examination, a critical tool for early detection. Education level was a factor in media consumption, with more educated individuals relying on print media while younger individuals preferred digital media. These findings suggest that targeted digital media campaigns may more effectively promote breast cancer awareness and early detection in Pakistan. **Conclusion:** Based on obtained results, this research underscores the pivotal role of mass media in combatting breast cancer awareness gaps among Pakistani women. While traditional and digital media both contribute to create awareness for early breast cancer detection. Additionally, educated females prioritize personal health care, exhibiting heightened awareness and commitment to leading a healthy lifestyle. This emphasis on health stems from their understanding of the importance of self-care and preventive measures. Consequently, educated women are more likely to adopt healthy habits and engage in regular health screenings, contributing to better overall health outcomes. Apart from that, the implementation of focused digital media campaigns presents a promising trajectory for bolstering breast cancer awareness and proactive detection initiatives within Pakistan's communities.

**Keywords:** public health awareness; breast cancer, Pakistan's mass media, knowledge, breast self-examination, self-health consciousness

### 1. Introduction

Breast cancer is a significant health issue in Pakistan, with the disease spreading rapidly and affecting a high number of women (Hortobagyi et al., 2005). It is concerning that most breast cancer cases in Pakistan are diagnosed at the last stage, which can be attributed to the lack of health awareness among women and their failure to practice breast self-examination (Dawn, 2022). It has been reported that one in eight Pakistani women develops breast cancer at some point in their life, and the death ratio from breast cancer is higher in developing countries such as Pakistan than in developed countries (Akinyemiju et al., 2017). The prevalence of breast cancer worldwide is also alarming with the World Health Organization (WHO) reporting that 2.3 million women globally were diagnosed with the disease in 2020, leading to a high death toll. However, the survival rate from breast cancer can be up to 98% if detected early (WHO, 2021). Women in Pakistan may choose to remain silent about their health issues due to shyness or social stigma, particularly when it comes to diseases related to the breast (Elobaid et al., 2016). This silence can lead to the last degree of breast tumor, which is often not curable.

The role of mass media in promoting health awareness cannot be overlooked. Mass media is an effective tool for disseminating information to a multicultural audience, and it has been recognized as an essential means of creating or promoting awareness (Backer et al., 1992; Kreps, 2008; Kreps & Sivaram, 2009; Okorie, 2011). Media can play an important role in creating awareness among women in Pakistan regarding breast cancer, promoting self-examination, and detecting any suspicious symptoms so that they can seek medical help (Hamed et al., 2022). Early detection of



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women's breast cancer refers to the identification of cancer at its initial stages, typically before it has spread beyond the breast tissue. This involves proactive screening methods such as breast self-examination, clinical breast examinations by healthcare providers, and mammography (Milosevic et al., 2018). Thus, early detection is key and if someone is knowledgeable about the initial symptoms, detection can be made early, reducing damage and enabling the patient to lead a normal life after receiving minor treatment. Additionally, early medical examination and breast screening are crucial factors in reducing deaths from breast cancer (USCS, 2010).

Developed countries have shown that campaigns to enhance the knowledge of the general public can significantly impact the early detection of breast cancer and reduce the death rate from the disease (Allemani et al., 2013; WHO, 2022). However, due to cultural, social, and religious barriers in Islamic countries, women may not feel comfortable discussing breast cancer openly (Awwad et al., 2020; Igbino et al., 2019; Nelson, 2013). This highlights the importance of mass media campaigns in promoting health awareness in these conservative societies.

Scholars have emphasized the importance of media and communication in public health awareness campaigns (Kreps & Sivaram, 2009; Okorie, 2011). Therefore, this study aims to explore the role of mass media in promoting awareness of breast cancer disease in Pakistan.

The paper resolves to answer the following questions:

How does Pakistan's mass media contribute to raising awareness about breast cancer among the public?

How effective is mass media in promoting awareness about breast cancer among the general public?

### *1.1. The Influence of Mass Media on Women's Breast Cancer Knowledge*

Gautam and Kumar (2016) have stated that the central role of media in health communication is to inform the public regarding diseases and influence them to build the courage to fight these kinds of fatal diseases. The ability of mass media to educate, entertain, disseminate information, spread ideas, and create and promote awareness on many social issues, including health issues such as breast cancer awareness, has been widely recognized (Okeke, et al., 2019). Traditional media, such as TV and Radio, effectively broadcast news, messages, and different genre programs regarding breast cancer during a specific year (Okeke et al., 2019).

Mass media have used various effective strategies in developing countries to create health awareness. Television is influential as it motivates people to act (Okorie, 2013). However, it has also been found that education is the key factor that causes a change in decision-making for seeking doctor help (Passalacqua et al., 2004). Naveena (2015) found that in the last few years, healthcare experts have used media as a tool to promote awareness of health-related issues among the public.

Wogu et al. (2019) found a link between breast cancer prevention/curative measures and media messages. However, they observed that only 31.2% of the awareness about breast cancer was through media content, indicating that the media content has not orchestrated the awareness of breast cancer among the consumers, nor has it orchestrated the health behavior changes of the consumers. Print media has been found to mobilize educated people. Still, it is not an effective tool for creating awareness among the masses, especially those who are illiterate and unable to read newspapers and other print media (Okeke et al., 2019).

It has been suggested that the mass media can cover the duties of cancer experts and specific cancer treatments (Mandal, 2012). By using the mass media, women can find the appropriate oncologist for their treatment. Detecting early symptoms and seeking medical attention is, therefore, very critical.

Although mass media tools like TV, Radio, and newspapers are the main sources of information about breast cancer in Nigeria, health workers are vital in providing effective information regarding breast cancer (Nelson & Salawu, 2016). A study conducted in Malaysian print media over ten years (from 1997-2007) found that over time, a fair amount of knowledge-related articles were reported, which ultimately enhanced the level of understanding about breast cancer among Malaya women (Al-Naggar & Al-Jashamy, 2011). However, another research on Nigeria's media preference showed they didn't focus on health-related issues, especially breast cancer. Hence, women had less knowledge of breast cancer and insufficient knowledge of the disease (Okorie et al., 2014). Results of another research conducted on South-West Nigeria indicated that different factors, such as religion, cultural tradition, and hiding the disease from people, also impacted early detection.

Social media has also been found to play a major role in raising awareness regarding breast cancer and spreading knowledge and information (Awwad et al., 2020). Social media consumers are high in number as the Gulf countries have a young population who are good users of social platforms. Facebook, LinkedIn, and Instagram are considered the most popular communication mediums. Therefore, social media is used to create awareness among women. Campaigns are carried out on these platforms, leading to increased participation in breast cancer screening programs in the Gulf countries. However, varying cultures and language barriers make public health cam-

paigns through social media challenging, and thus, the content should be culturally sensitive and in the target audience's language (Awwad et al., 2020).

### *1.2. Breast Screening and Women's Attitude*

Medical experts have emphasized the importance of regular breast monitoring and screening for women, especially those aged 40 and above, as it can detect breast cancer early and increase survival rates (Duffy et al., 2020). However, despite numerous awareness campaigns, the World Health Organization has found that breast cancer examination rates among women are still 10% lower than estimated (Eurostat, 2019). Despite women's awareness, low breast screening practices are prevalent in several socio-cultural segments, leading to delayed detection (Smith et al., 2019). While breast screening is the most common and reliable method for identifying breast cancer early, other factors, such as exposure to heavy radiation, must also be considered in the decision to undergo screening (Miller et al., 2014).

Media can play a crucial role in health interventions. Plackett et al. (2020) found that social media can promote breast screening and aid in early detection by reaching a large audience through easy smartphone access. A study in Qatar on knowledge of breast screening showed that media and doctors were the main sources of information, with many women aware of breast cancer but uninformed about screening procedures and methods (Donnelly, 2015). According to Yanovitsky and Blitz (2000), doctors' advice on screening significantly influences women's decisions. At the same time, media coverage of screening significantly impacts women's attitudes, with both playing influential roles in creating awareness about mammography screening among women.

Suleiman (2014) studied Jordanian female students' attitudes and behaviors regarding breast cancer and self-examination. The study aimed to assess understanding of breast cancer, screening methods, and self-examination, with nearly 900 female students surveyed cross-sectionally and through self-administration of a questionnaire. Breast cancer was known to almost half of the young female respondents. While public health and breast cancer awareness has increased, the study found that breast self-examination was rarely performed and that women had little knowledge of it.

### *1.3. Theoretical Framework*

This study applied three theories: the agenda setting theory, the knowledge gap, and the health belief model. The agenda setting theory suggests that mass media content sets the agenda, meaning they don't tell people what to think but rather what to think about. Media professionals have a crucial role in constructing political reality by selecting and presenting news, which shapes readers' opinions on the importance of certain issues. Moreover, the media often reflects what politicians say during the campaign, setting the campaign agenda (McCombs & Shaw, 1972).

The study investigated the effects of mass media on breast cancer screening practices among college and middle-aged women, and the agenda-setting theory was used to analyze the relationship between mass media and news audiences. The knowledge gap hypothesis describes the systematic knowledge gaps between better-educated and less-educated members of the community. To test this hypothesis, the researchers examined metro and regional daily newspaper penetration in 87 Minnesota counties and readership data for metro and regional daily newspapers and small-town weekly and semiweekly publications in 28 towns. They found that metro daily newspaper penetration had declined considerably in non-metropolitan regions, with the steepest declines occurring in agricultural counties. Changes in regional daily newspaper readership were negatively related to changes in metro circulation (Griffin & Dunwoody, 2000).

Lastly, the Health Belief Model (HBM) was utilized as a guiding framework for health behavior therapies. This model has been used in health behavior research since the 1950s to explain the change and maintenance of health-related behaviors. The model identifies modifying factors such as age, gender, ethnicity, personality, socioeconomic, and knowledge, which are associated with individual beliefs about perceived susceptibility to and severity of disease, perceived benefits, perceived barriers, perceived self-efficacy, and perceived threat. These individual beliefs are, in turn, associated with specific health-related behaviors, such as smoking cessation, exercise, and dietary changes (Rosenstock, 1974).

## **2. Materials and Methods**

The research objectives were examined using a triangulation approach involving a survey. The questionnaire was presented to females from the general public to obtain their opinions on the role of media in providing awareness about the disease. The survey research method was deemed the most appropriate for this study, as it aimed to obtain data from people living with potential female breast cancer.

The survey method was employed to attain the research objectives, with the population being women who are potential breast cancer victims. Women with different demographic factors such as age, education, and marital status primarily filled out the questionnaire. The sample size was 300

women of different backgrounds, and a purposive sampling technique was used to obtain a good response from the participants. Two data collection methods were employed in this study: hard copies of the questionnaire were distributed among women in cancer hospitals who were suffering from breast cancer or accompanying a patient. At the same time, an online Google survey form was also shared on different social media apps to collect data from potential victims. The survey took place from February 2, 2021, to March 15, 2021.

Participation in this research was entirely voluntary. The online response rate was low, and 275 responses were collected from both data collection practices. The sample size remained at 251, as incomplete surveys were omitted.

The questionnaire was divided into different sections. The first section contained basic demographic information about the participants, such as their age, education, and marital status. The second section focused on mass media sources of information that create awareness of breast cancer among the audience. This section contained all possible mass media sources, including books, newspapers, magazines, Radio, Television, the Internet, and social media. Respondents were asked whether these sources were important enough to provide information related to breast cancer, with a yes or no response. The third section focused on knowledge regarding breast cancer, breast self-examination (BSE), breast cancer screening, and prevention from breast cancer, as well as "health self-consciousness" (HSC). The items in this section aimed to determine the participant's level of knowledge and awareness regarding breast cancer, its symptoms, and the importance of breast self-examination and screening. The fourth section of the questionnaire focused specifically on breast self-examination, including questions about the frequency of self-examination, the reasons for performing or not performing it, and the effectiveness of media campaigns in promoting breast self-examination. A tested Health Self-consciousness scale was adopted in this study, which contained an 11-item scale, and responses were rated on a 7-point scale ranging from 1 to 7 (strongly disagreed/strongly agree).

Using both hard copies and online surveys allowed for a diverse sample of participants and increased the response rate. Overall, the survey method provided valuable insights into the perceptions and knowledge of Pakistani women regarding breast cancer and the role of the media in creating awareness about the disease. The results of this study can be used to inform future media campaigns and public health initiatives aimed at raising awareness about breast cancer and promoting early detection and prevention practices.

### 3. Results

Results revealed that different ages of women also impact the taking of information from various mass media sources. The overall result showed that mass media creates awareness among women according to their age group. As books are the source of awareness for women who are 18 to 30 years, less than 50 years (13.4%), but most women did not read books for information, so there is a significant difference with other age groups; they read books for getting information regarding breast cancer. The newspaper also showed significant differences ( $p = .026$ ) among various age groups, as 25.7% of 18-30 years old females read the newspaper while 11.4% said they didn't read the newspaper for a specific purpose. Under the age of 40, 18.8% said they read newspaper, while 3.5% do not read the newspaper. Above 50 years of age, 9.4% said they read newspapers, and 7.4% said they didn't read newspapers for information on breast cancer. Television ( $p = .041$ ) and Radio ( $p = 0.40$ ) significantly differed among age group categories. As 175 (86.6%) said yes, Television is an important source of information on breast cancer, while 13.4% said Television does not give information regarding breast cancer. Internet and social media showed significant differences among different age groups. Internet showed a clear difference in usage concerning age ( $p = .000$ ). Likewise, social media also have significant difference among different age group ( $p = .000$ ).

**Table 1: Mass media create awareness among women associated with age**

Mass media create awareness among women		Overall frequency	Age Level				P value
			18 to 30 years	Under 40 years	Under 50 years	Above 50 years	
Book	Yes	82 (40.6%)	27(13.4%)	17 (8.4%)	27 (13.4%)	11 (5.4%)	.027
	No	120 (59.0%)	48(23.8%)	31(15.3%)	18 (8.9%)	23(11.4%)	
Newspaper	Yes	138(68.3%)	52(25.7%)	29(14.4%)	38 (18.8%)	19 (9.4%)	.026
	No	64(31.7%)	23(11.4%)	19 (9.4%)	7 (3.5%)	15 (7.4%)	
Magazines	Yes	99 (49.0%)	39(19.3%)	25(12.4%)	17 (8.4%)	18 (8.9%)	.402

<b>Television</b>	No	103 (51.0%)	36(17.8%)	23(11.4%)	28 (13.9%)	16 (7.9%)	.041
	Yes	175 (86.6%)	65(32.2%)	39(19.3%)	39 (19.3%)	32(15.8%)	
<b>Radio</b>	No	27 (13.4%)	10 (5.0%)	9 (4.5%)	6 (3.0%)	2 (1.0%)	.040
	Yes	93 (46.0%)	31(15.3%)	22(10.9%)	17 (8.4%)	23(11.4%)	
<b>Internet</b>	No	109 (54.0%)	44(21.8%)	26(12.9%)	28 (13.9%)	11 (5.4%)	.000
	Yes	149 (73.8%)	63(31.2%)	39(19.3%)	32 (15.8%)	15 (7.4%)	
<b>Social media</b>	No	53 (26.2%)	12 (5.9%)	9 (4.5%)	13 (6.4%)	19 (9.4%)	.000
	Yes	165 (81.7%)	69(34.2%)	45(22.3%)	38 (18.8%)	13 (6.4%)	
	No	37 (18.3%)	6 (3.0%)	3 (1.5%)	7 (3.5%)	21(10.4%)	

The table 2 reports mass media sources to create breast cancer awareness related to marital status among women. Overall, 40.6% of women said that they had got awareness from books, 68.3% got awareness information from newspapers, 86.6% of women said they found awareness from TV, 46.0% of women tuned Radio for getting awareness of breast cancer, 73.8% and 81.7% said that through Internet and social media respectively, create awareness among women regarding breast cancer.

Findings showed that 31.2% of single-status women didn't read books. In comparison, 28.2% of married women didn't read books to take information regarding breast cancer and p value (p= .392) showed no significant relation between single and married women for getting information regarding breast cancer. The same newspapers (p= 1.000), magazines (p= .889) and Radio (p=.438) did not show any difference between married and unmarried women. There is a significant difference that can be observed in married and single women in Television (p= .023), Internet (p= .016), and social media (p= .000). While most married women, 45.3% said Television creates awareness regarding breast cancer. In contrast, single women revealed that Internet and social media are great sources of information on breast cancer awareness among them.

**Table 2: Mass media create awareness among women associated with marital status**

Mass media create awareness among women		Overall frequency	Marital Status		P value
			Single	Married	
<b>Book</b>	Yes	82 (40.6%)	38 (18.8%)	44 (21.8%)	.392
	No	120 (59.0)	63 (31.2%)	57 (28.2%)	
<b>Newspaper</b>	Yes	138(68.3%)	69 (34.2%)	69 (34.2)	1.000
	No	64(31.7%)	32 (15.8%)	32 (15.8%)	
<b>Magazines</b>	Yes	99 (49.0%)	49 (24.3%)	50 (24.8%)	.889
	No	103 (51.0%)	52 (25.7%)	51 (25.2%)	
<b>Television</b>	Yes	175 (86.6%)	83 (41.1%)	92 (45.5%)	.023
	No	27 (13.4%)	18 (8.9%)	9 (4.5%)	
<b>Radio</b>	Yes	93 (46.0%)	44 (21.8%)	49 (24.3%)	.483
	No	109 (54.0%)	57 (28.2%)	52 (25.7%)	
<b>Internet</b>	Yes	149 (73.8%)	82 (40.6%)	67 (33.2%)	.016
	No	53 (26.2%)	19 (9.4%)	34 (16.8%)	
<b>Social media</b>	Yes	165 (81.7%)	92 (45.5%)	73 (36.1%)	.000
	No	37 (18.3%)	9 (4.5%)	28 (13.9%)	

The table 3 reports mass media sources to create breast cancer awareness among women regarding education. The overall result of the table determined that mass media sources like newspapers, Magazines, the Internet and Social media have significant differences among different education levels. Still, it seems very strange that Radio and Television have no significant difference among education levels.

Statistical results showed that magazines had a significant difference (p=.005), newspapers (p= .004), Internet (p= .000) and social media (p= .000), while books, Television and Radio have no significant difference for getting information regarding breast cancer.

**Table 3: Mass media create awareness among women associated with education**

Mass media		Overall frequency	Education level					P value
			No formal education	Primary –middle level	High school level	Under-graduate level	Graduate level	
Book	Yes	82 (40.6%)	6(3.0%)	4(2.0%)	31(15.3%)	26(12.9%)	15(7.4%)	.093
	No	120 (59.0)	12(5.9%)	9(4.5%)	27(13.4%)	35(17.3%)	37(18.3%)	
Newspaper	Yes	138(68.3%)	8(4.0%)	6(3.0%)	41(20.3%)	51(25.2%)	32(15.8%)	.004
	No	64(31.7%)	10(5.0%)	7(3.5%)	17(8.4%)	10(5.0%)	20(9.9%)	
Magazines	Yes	99 (49.0%)	3(1.5%)	3(1.5%)	30(14.9%)	29(14.4%)	34(16.7%)	.002
	No	103 (51.0%)	15(7.4%)	10(5.0%)	28(13.9%)	32(15.8%)	18(8.9%)	
Television	Yes	175 (86.6%)	14(6.9%)	12(5.9%)	48(23.8%)	56(27.7%)	45(22.3%)	.442
	No	27 (13.4%)	4(2.0%)	1(0.5%)	10(5.0%)	5(2.5%)	7(3.55)	
Radio	Yes	93 (46.0%)	10(5.0%)	6(3.0%)	26(12.9%)	26(12.9%)	22(10.9%)	.904
	No	109 (54.0%)	8(4.0%)	7(3.5%)	32(15.8%)	32(15.8%)	30(14.9%)	
Internet	Yes	149 (73.8%)	4(2.0%)	4(2.0%)	47(23.3%)	48(23.8%)	46(22.8%)	.000
	No	53 (26.2%)	14(6.9%)	9(4.5%)	11(5.4%)	13(6.4%)	6(3.0%)	
Social media	Yes	165 (81.7%)	8(4.0%)	3(1.5%)	53(26.2%)	53(26.2%)	48(23.8%)	.000
	No	37 (18.3%)	10(5.0%)	10(5.0%)	5(2.5%)	8(4.0%)	4(2.0%)	

Table 4 results determined that mass communication sources are associated with breast cancer knowledge, Breast self-examination, prevention and health self-consciousness. Book has positive correlated with knowledge of breast cancer ( $r=.051^*$ ,  $n= 202$ ,  $p=.05$ ), breast cancer screening ( $r=.110^*$ ,  $n= 202$ ,  $p=.02$ ), took preventive measures ( $r=.166^*$ ,  $n= 202$ ,  $p=.01$ ) and health self-consciousness ( $r=.178^*$ ,  $n= 202$ ,  $p=.030$ ). However, books are not associated with Breast self-examination (BSE). Newspaper has positive correlated with knowledge of breast cancer ( $r=.238^{**}$ ,  $n= 202$ ,  $p=.000$ ), breast cancer screening ( $r=.109^*$ ,  $n= 202$ ,  $p=.001$ ), took preventive measures ( $r=.150^*$ ,  $n= 202$ ,  $p=.003$ ), Breast self-examination (BSE) ( $r=.150^*$ ,  $n= 202$ ,  $p=.003$ ). And health self-consciousness ( $r=.259^*$ ,  $n= 202$ ,  $p=.000$ ). Magazines have positively correlated with preventive measures ( $r=.266^*$ ,  $n= 202$ ,  $p=.000$ ), magazines have negatively correlated with knowledge of breast ( $r=-.291^*$ ,  $n= 202$ ,  $p=.000$ ) and Breast self-examination (BSE) ( $r=-.287^*$ ,  $n= 202$ ,  $p=.003$ ). Television has negatively correlated with breast cancer screening ( $r=-.166^{**}$ ,  $n= 202$ ,  $p=.016$ ) and health self-consciousness ( $r=-.263^*$ ,  $n= 202$ ,  $p=.000$ ). Radio has positively correlated with knowledge of breast cancer ( $r=.214^{**}$ ,  $n= 202$ ,  $p=.000$ ), breast self-examination (BSE) ( $r=.103^*$ ,  $n= 202$ ,  $p=.001$ ), breast cancer screening ( $r=.158^*$ ,  $n= 202$ ,  $p=.025$ ), took preventive measures ( $r=.117^*$ ,  $n= 202$ ,  $p=.052$ ), and health self-consciousness ( $r=.107^*$ ,  $n= 202$ ,  $p=.030$ ). The Internet has positively correlated with breast cancer knowledge ( $r=.278^{**}$ ,  $n= 202$ ,  $p=.000$ ), Breast self-examination (BSE) ( $r=.212^{**}$ ,  $n= 202$ ,  $p=.002$ ), and negative association with breast screening ( $r=-.284^*$ ,  $n= 202$ ,  $p=.000$ ). The result of the table concluded that social mass media sources have a relation with promoting awareness among women as mainstream media and social media both have associated with breast cancer knowledge and if mass media create knowledge it also promotes breast self-examination which is very helpful in early detection of the disease and a same run encourage the women to go for breast screening if they found any relevant symptoms but as far as health self-consciousness all type of media are failed to communicate on it. Women do not have enough perception about personal health or when they fell ill.

**Table 4: Correlation of Mass media with Breast screening**

Mass media		Breast cancer Knowledge	BSE	Breast cancer screening	Prevention	HCS
Books	Pearson Correlation	.178 <sup>*</sup>	-.010	.110 <sup>*</sup>	.166 <sup>*</sup>	.178 <sup>*</sup>
	N	.051	.886	.020	.018	.030

Newspapers	Pearson Correlation	202	202	202	202	202
	Sig. (2-tailed)	.238**	.109**	.200**	.150**	.259**
	N	.000	.001	.001	.003	.000
Magazines	Pearson Correlation	202	202	202	202	202
	Sig. (2-tailed)	-.291**	-.287**	-.070	.266**	-.018
	N	.000	.000	.323	.000	.795
Television	Pearson Correlation	202	202	202	202	202
	Sig. (2-tailed)	-.013	-.011	-.166*	.003	-.263**
	N	.858	.880	.016	.968	.001
Radio	Pearson Correlation	202	202	202	202	202
	Sig. (2-tailed)	.214**	.103**	.158**	.117**	.107**
	N	.002	.001	.025	.052	.030
Internet	Pearson Correlation	202	202	202	202	202
	Sig. (2-tailed)	.278**	.212**	-.284**	-.029	-.075
	N	.000	.002	.000	.682	.291
Social media	Pearson Correlation	202	202	202	202	202
	Sig. (2-tailed)	-.251	-.170	-.189	-.052	-.134
	N	.000	.015	.007	.458	.058
	N	202	202	202	202	202

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

#### 4. Discussion

Media has a key role in promoting health awareness among people from grass root to the upper level (Backer et al., 1992; Kreps, 2008; Kreps & Sivaram, 2009; Okorie, 2011). So that health care experts use media to disseminate information regarding health-related issues. Mass media is influential and persuasive in promoting health awareness among the public. The public health sector uses media purposively to create awareness regarding public health issues; mass media at the vast level can contour public attitude, knowledge and behavior towards health issues. Scholars have emphasized the importance of media and communication in public health awareness campaigns (Kreps & Sivaram, 2009; Okorie, 2011). So if the media conduct powerful campaigns on breast cancer, they can induce change in public attitude in reverse, reducing the risk of mortality due to cancer (Akram et al., 2017; Hamed et al., 2022).

This study examined the relationship between mass media and public health concerning breast cancer awareness among people, especially women. This research investigated to what degree Pakistani mass media play a role in creating awareness among cancer affected women and women living with potential breast cancer. According to public health report, the breast cancer spread very speedily and Pakistan has highest number of effected patient among Asian countries, although this disease is worldwide phenomenon but its ratio increases in Pakistan day by day (Akinyemiju et al., 2017; Khan, 2021). At the same time, globally, breast cancer is proven to be a life-threatening disease in women due to lack of awareness; it would be fatal (WHO, 2021).

The research participants revealed that they are familiar with this fatal disease and know well about it. Respondents have mentioned that they have seen many women suffering from this disease around them. They have also disclosed that their dear ones like their mother, blood sisters and best friends had suffered and fought with fatal disease. When asked about the role of mass media in promoting awareness regarding breast cancer disease, which is the key objective of the current study, however, it has been established that by the previous research, mass media play an important role in creating, promoting and disseminating the knowledge of breast cancer among women, it can also be helped in early detection of this disease, when and how to consult doctors or any medical experts regarding any issue. This study's mass media sources included books, newspapers, magazines, Television, Radio, the Internet and social media. So the results indicated that mass media considered an imperative contrivance to create and promote awareness among the general public about breast cancer by running different campaigns through public service messages and advertisements. The participants of this study also admit the role of media as a powerful source of in-

formation about breast cancer, not only for breast cancer patients but also for potential victims (Akram et al., 2017).

Respondents have also given their opinion regarding the preeminent sources of information related to breast cancer in women; most respondents said that the Internet and social media are the main source of breast cancer information. The current study also supports the fact regarding mass media and the relationship in creating awareness among women of different demographic backgrounds. It also supports this study's research question, Pakistan's mass media play a vital role in promoting breast cancer awareness among women. The result showed that women of different ages have various associations with mass media sources, as young women aged 18 to 30 are more inclined towards social media and the Internet. They found these media more important sources of promoting awareness among them. The same trends have also been linked in earlier work. Mass media in underdeveloped countries uses a variety of techniques to raise public awareness of health issues. For example, television is a potent influencer that motivates viewers to take action (Okorie, 2013). Nevertheless, research suggests that education plays a pivotal role in shaping individuals' decisions to seek medical assistance (Passalacqua et al., 2004). According to Naveena (2015), healthcare professionals increasingly utilize media platforms to disseminate information about health-related issues to the public. While Wogu et al. (2019) found a limited impact of media in driving awareness and influencing health behaviors. Additionally, print media is found to engage educated individuals effectively but falls short in reaching illiterate populations (Okeke et al., 2019). Marital status (married and unmarried women) and education level of women also significantly differ among groups. Still, they have acknowledged the importance of social media and take it as an imperative source of information regarding breast cancer. Previous research also supports that social media provide evidence as a key tool. Thus it can be used to improve health outcomes; it should not be viewed as a solution to behavioral change; rather, social media can be used in health promotion to enhance communication and improve the capacity to promote programs, products, and services by engaging audiences. Age, educational level, and socioeconomic status determine how social media is used; therefore, breast cancer awareness campaigns should be tailored according to the target audience's demographic characteristics (Moey et al., 2021; Khan, 2021).

The study highlights the significance of mass media in promoting breast cancer awareness among women in Pakistan. The results suggest that mass media sources such as the Internet and social media are important tools for disseminating information about breast cancer. It is recommended that the public health sector should collaborate with the media to run effective campaigns, public service messages, and advertisements to create and promote awareness regarding breast cancer. By doing so, they can enhance the general public's knowledge, attitude and behavior toward breast cancer, reducing the risk of mortality. Further research is needed to explore the impact of media campaigns on breast cancer awareness and to develop more effective ways of using mass media to promote health awareness among the public.

## 5. Conclusions

The primary objective of this study was to explore the correlation between public health awareness and mass media, focusing specifically on breast cancer. The research aimed to assess the extent to which Pakistan's mass media highlighted breast cancer and raised awareness among survivors and those at risk. It's noteworthy that breast cancer incidence is escalating in Pakistan, positioning the country among the top nations grappling with this disease. In developing nations, mass media employs diverse strategies to promote health awareness. Television, for instance, serves as a powerful influencer, inspiring action among viewers. Although mass media tools like TV, Radio, and newspapers are the main sources of information about breast cancer. However, the study clarifies how women's age and marital status affects their consumption of information from a variety of mass media sources. It's interesting to note that different age groups use different information sources, according to the research. While books are the primary source of information for younger women about breast cancer, older women have different choices, with newspapers, television, and the internet all having a significant impact. Married women predominantly cited television as a key source of awareness, whereas single women favored internet and social media platforms. Notably, the findings underscore the need for tailored communication strategies to effectively reach and engage women of different marital statuses in breast cancer awareness campaigns. Television and digital media play crucial roles in raising awareness among women about breast self-examination (BSE). Through televised programs and online content, women are educated about the importance of regular self-examinations for detecting potential signs of breast cancer early. Additionally, messages conveyed via TV, radio, and social media campaigns contribute significantly to increasing knowledge about breast screening methods. These multimedia platforms serve as effective channels for disseminating information about the importance of routine screenings and promoting participation in breast cancer screening programs. Overall, the combined efforts of TV, digital media, and various other mass communication avenues help empower women



with the knowledge and resources necessary for proactive breast health management. Medical experts often emphasize the importance of early detection, as it increases the chances of successful treatment and improves overall outcomes for individuals diagnosed with breast cancer. By leveraging the reach and influence of mass media, healthcare professionals can effectively reach and educate women about the importance of performing regular BSEs and seeking timely medical attention if any abnormalities are detected. Ultimately, the collaborative efforts of media and medical experts empower women with the knowledge and tools necessary to take proactive steps towards safeguarding their breast health and potentially saving their lives through early detection.

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