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KEEPING ABREAST: IMPACT OF WHATSAPP IN CREATING BREAST CANCER AWARENESS AMONG WOMEN

Public Health

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ABSTRACT

Introduction: The use of social media by healthcare professionals to create disease awareness has been increased worldwide. It is easily available and accessible to the larger number of populations and hence helps in bridging the gap between doctor and patient. Breast cancer is the leading cause of cancer among women in India and the main reason for higher mortality among them is the late presentation to the surgeons, owing to various myths and social and physical taboos. We conducted a study to assess the awareness of breast cancer among the women in general population and also to check the effectiveness of WhatsApp in improving women's knowledge regarding the risk reduction, myths, early detection and treatment of breast cancer. **Methods:** The study was a pre-post health educational study including 146 women. Multiple WhatsApp groups were created to share information regarding breast cancer awareness, early detection, risk factors, common myths, self-breast examination and treatment of breast cancer in the form of audio, video, text and images. The group was active for 4-5 days as an interactive session. Data were collected through google forms. **Results:** We noticed a significant improvement in the knowledge of women regarding the common myths regarding breast cancer and the symptoms of breast cancer. There was significant increase in performance of self-breast examination from 14.4% to 84.6% (p- <0.001). Most of the women found the video of self-breast examination useful. **Conclusion:** The commonly used social networking site like WhatsApp can be used as a tool to assess the awareness of breast cancer among women. This also helped in exchange of the knowledge among women, which in turn helped in the risk reduction and early detection of breast cancer. This app is a useful tool that can be incorporated into health education strategies that focus on breast cancer.

KEYWORDS

Social Media, Awareness, Breast Cancer, Whatsapp

INTRODUCTION

The use of social media by healthcare professionals to create disease awareness has been increased worldwide. This bridges the gap between the doctors and patients. It is easily available and accessible to the larger number of populations. Hence, we chose commonly used WhatsApp in creating breast cancer awareness among women, as it is the leading cause of cancer among women in India [1].

The reason for higher mortality among them is the late presentation to the surgeons, owing to various myths and social and physical taboos. We aimed to assess the awareness of breast cancer among the women in general population and also to check the effectiveness of WhatsApp in improving women's knowledge regarding the risk reduction, myths, early detection and treatment of breast cancer

METHODS

This study was conducted after obtaining Institutional ethical clearance and also the questionnaires, posters and videos were validated by 4 different clinicians. In this pre-post health educational study, 146 women were included, by snow ball sampling.

Women aged above 18 years who had access to WhatsApp and could read English were included in our study, after obtaining their consent. Medical and nursing professionals were excluded. Multiple WhatsApp groups with 10-15 participants in each were created and moderated by the authors.

They were sent the pre-test Google form questionnaire first. Once they filled it, the Moderators shared timely information regarding breast cancer awareness, early detection, risk factors, self-breast examination and treatment of breast cancer in the form of audio, video, text and images (Fig. 1).

These groups were active for 4-5 days, as an interactive session. By the end of it, same questionnaire was sent as post-test. Data were collected through Google form questionnaires (Table 1). Quantitative data was analysed by Mc Nemar test. Feedback about the sessions were collected from the participants.

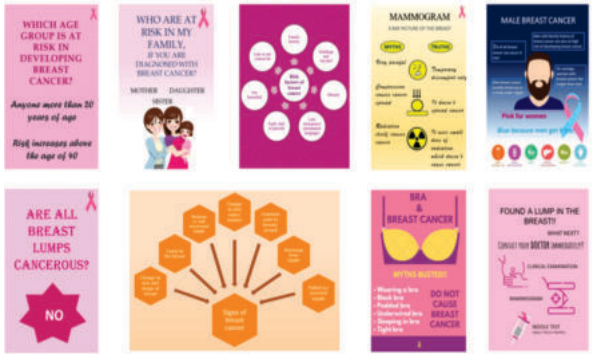

Figure 1: Few of the Images which were used in awareness program

Table 1. Questionnaire for pre- and post- test

	yes	no
Do you know what a "breast self-examination" is?		
Have you ever performed a breast self-examination?		
Has anyone in your family been diagnosed with breast cancer?		
Which of the following are risk factors of breast cancer? Check whichever is applicable Family history of breast or ovarian or uterine cancer Smoking Alcohol Obesity Wearing a bra at night Conceiving a child after 35 or not conceiving at all Never breastfed Early menarche (Starting of periods) Late menopause (Periods permanently stopped)		

Which of the following are warning signs of breast cancer? Check whichever is applicable Lump in the breast Lump in the arm pit Bleeding or discharge from the nipple Recent retraction of nipple Rash on or around your nipple A recent change in the size of the breast Dimpling of skin over the breast		
Does wearing black bra/underwired bra increase chances of breast cancer?		
Are all lumps in the breast cancerous?		
If diagnosed with breast cancer, will the surgery always involve the removal of the entire breast?		
Do u think a mammogram can detect breast cancer in the early stages?		
Can men get breast cancer?		
Can you get breast cancer during pregnancy?		
Which of the following age groups of women are likely to get breast cancer? Tick one Below 30 31-60 Above 60 All of the above		

RESULTS

Among 146 women who were included in the study, 42 failed to answer the post test. Hence only 104 women were included in the study for analysis. 62% of them were aged between 18 – 30 years (Fig. 2). Most of the participants were graduates (49%) (Fig. 3) and were unmarried (58%).

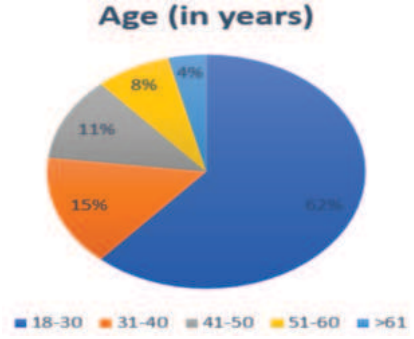

Figure 2: Distribution of age

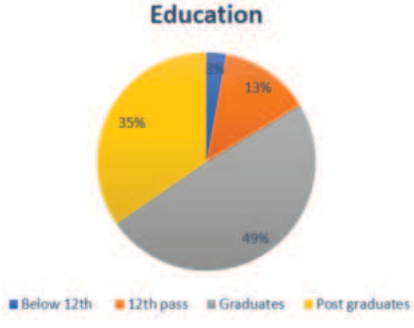

Figure 3: Distribution of level of education

Among risk factors, majority (90.4%) of the participants were aware that the family history is a potential risk factor, however other factors showed varied responses. 41.3% of the women thought that wearing a brasserie at night was a risk factor (Table 2). 93.3% of the participants were aware that the lump in the breast as the symptom of the cancer, followed by nipple discharge (64%) (Table 3).

Table 2: Pre- and Post-test responses for risk factors for breast cancer

Risk factors	Pre test	Post test
Family history	94 (90.4%)	99 (95.2%)
Smoking	26 (25.0%)	71 (68.3%)
Alcohol	22 (21.2%)	75 (72.1%)
Obesity	36 (34.6%)	78 (75.0%)
Wearing bra at night	43 (41.3%)	12 (11.5%)
Late child birth	18 (17.3%)	64 (61.5%)
Not breast fed	40 (38.5%)	75 (72.1%)
Early menarche	14 (13.5%)	77 (74.0%)
Late menopause	14 (13.5%)	81 (77.9%)

Table 3: Pre- and Post-test responses for symptoms of breast cancer

Symptoms	Pre test	Post test
Lump in the breast	97 (93.3%)	99 (95.2%)
Axillary lump	55 (52.9%)	74 (71.2%)
Nipple discharge	64 (61.5%)	94 (90.4%)
Nipple retraction	34 (32.7%)	73 (70.2%)
Rash around the nipple	30 (28.8%)	70 (67.3%)
Change in breast size	44 (42.3%)	71 (68.3%)
Dimpling of breast skin	35 (33.7%)	79 (75.9%)

Among the participants, 49 % of the participants thought that the breast cancer is common among the women aged between 30-60 years, however this notion changed post awareness programme, i.e., 67.3% answered that any age group could get breast cancer. Before the awareness programme, only 61 (58.7%) of the women were aware of self-breast examination and after the programme, proportion has significantly increased to 101 (97.1%) with p<0.001. There was also a significant increase in performance of self- breast examination from 14.4% to 84.6% (p <0.001) (Fig. 4). 99% of the participants found that the audio-visual aids used in this awareness programme, helped in improving their knowledge on breast cancer.

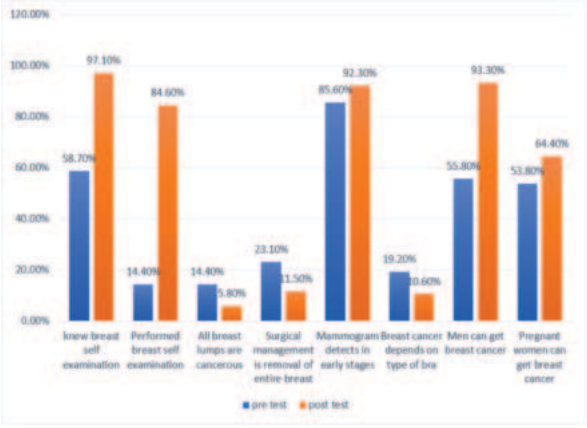

Figure 4: Pre- and Post- test responses for other questions

The feedback shared by the participants confirmed that this method of making them aware of breast cancer via WhatsApp was good and had an informal environment of learning. Following are the few feedbacks.

- "Yes, it was useful coz there are many myths around breast cancer specifically regarding bra type and its usage ....and overall, it helps in creating basic awareness for signs and symptoms"
- "It was comfortable to clear our doubts in such small groups"
- "The video on self-breast examination was very informative"
- "This group was good as there was only ladies, we could ask our doubts without hesitation"

We noticed an overall improvement in knowledge of women about the common myths regarding breast cancer and also the risk factors and symptoms of breast cancer. Most of the women found the video of self-breast examination guided them in performing on themselves. They also found it comfortable to discuss and clarify their doubts with the moderator better.

DISCUSSION

Breast cancer is the most common malignancy among women worldwide and is the leading cause of cancer deaths, accounting for 13.6 %. It is also a leading cancer among Indian women with the mortality rate of 10.6% [1]. The mortality rates are particularly higher in the developing countries owing mainly due to poor access to treatment in some parts of the country as well as due to various social and emotional factors. In spite of various government programs on screening and early detection of breast cancer, many women do not approach a health care setup due to the social stigmas associated with

breast cancer and also for sheer shyness to show self to a male doctor. This results in most of the ladies presenting in the later stages of the disease. It is very important to create awareness among the women, family, and care givers on the risk factors, early detection and treatment of breast cancer. This requires the development of an efficient health communication strategies for the general population. [2].

In the present world, the social networking sites allow the users to connect with a larger population easily and comfortably. These are also being used as health communication platforms [3,4,5]. According to the Internet and Mobile Association, in 2013, 52% working women and 55% of nonworking women were using social media in India [4]. The easy and widespread use of mobile phones have made them a great tool in planning and executing health interventions [6]. These have been used for health and cancer awareness including for breast cancer awareness in the past with great success [7,8,9]. Social media in health promotion and education, should be valued for its potential to engage with audiences for enhanced communication and improved capacity to promote health programs, awareness and services [7]. It is used in public health interventions to promote cancer screening and early diagnosis, as it can rapidly deliver targeted public health messages to large number of people [4].

Since wrong information can also be can be quickly propagated on social sites, efforts must be made to communicate medical advances accurately with both the general population and among patients to ensure genuine knowledge can be separated from false information [10,11].

Social media Apps like Facebook, Twitter, Instagram, WhatsApp are being used in health education interventions, among which WhatsApp is definitely a commonly used platform [6,9,12]. Hence, we chose WhatsApp to create awareness in our study. It is free and has a user-friendly interface. This form of instant messaging and chatting app enables users to send voice, text, video or location between the participants and the moderator. This improves knowledge and creates awareness at the comfort of one's home, improves the comfort zone of the women to ask questions and clear their doubts [6,8,9]. This platform helps in strengthening the gap between health and technology [8]. In spite of being popular, WhatsApp is not being used to its promising potential in health education and health care strategies and only few studies have evaluated the effectiveness of using this app to convey health information to the user [6,8,9,12].

The use of women only groups for women in WhatsApp for health education purpose seems to be a great alternative in strategies on breast cancer control, especially as it gives a space for the exchange of experiences and disinhibition. The women are more comfortable with only female participants and female moderators. Also, they learn from each other's experiences and doubts. However, the need for a moderator to answer all the questions and the constant distractions by the members of the group, may create chaos in the group and may lead to confusion and represents an important limitation that should be considered when improving this strategy [6]. The unregulated use of WhatsApp instant messenger should be avoided and requires proper guidelines to assure impeccable professional service which should be checked by the moderator [12].

CONCLUSION

The use of a commonly used social networking site like WhatsApp can be used as a tool to assess the awareness of breast cancer among women and by the use of images, audio, video and messages, helped in improving their knowledge regarding it. This media helped in exchange of knowledge among women at the comfort of their home, which in turn would help in risk reduction and early detection of breast cancer. However, a moderator is required to facilitate every group. This app is a useful tool that can be considered to incorporate into the health education strategies which focus on breast cancer after thorough validation.

REFERENCES

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, Bray F. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. CA Cancer J Clin. 2021 May;71(3):209-249. doi: 10.3322/caac.21660. Epub 2021 Feb 4. PMID: 33538338.
2. Cancer Research UK. Why is early diagnosis important? Cancer Research UK. 2021. https://www.cancerresearchuk.org/about-cancer/cancer-symptoms/why-is-early-diagnosis-important. Accessed 2 Mar 2021.
3. Sinha N, Sharma A. Understanding Social Media Usage and Engagement among Women to inform Breast Cancer Knowledge and Prevention Practices: Cross - sectional study in Delhi -National Capital Region of India. Indian J Community Med. 2021 Jul-Sep;46(3):411-415. doi: 10.4103/ijcm.IJCM_429_20. Epub 2021 Oct 13. PMID: 34759477; PMCID: PMC8575233.
4. Velmurugan R. Implications of social media among working womens in Coimbatore (wrt Facebook, Twitter, YouTube, Skype, LinkedIn,Whatsapp) International Journal in Commerce, IT and Social Sciences. 2015; 2:15–25.
5. Capurro D, Cole K, Echavarría MI, Joe J, Neogi T, Turner AM. The use of social networking sites for public health practice and research: a systematic review. J Med Internet Res. 2014; 16:79.
6. Pereira AAC, Destro JR, Picinin Bernuci M, Garcia LF, Rodrigues Lucena TF. Effects of a WhatsApp-Delivered Education Intervention to Enhance Breast Cancer Knowledge in Women: Mixed-Methods Study. JMIR Mhealth Uhealth. 2020 Jul 21;8(7): e17430. doi: 10.2196/17430. PMID: 32706726; PMCID: PMC7404019.
7. D. Mansour, A. Nashwan, H. Abu Rasheed, M. Hararah, H. Nassar, R. Abu Abbas, M. Alnuaimi, and B. Mrayat. Use of social media in Breast Cancer Awareness: GCC Countries' Experience. Journal of Global Oncology 2018 4: Supplement 2, 30s-30s
8. Nayak PP, Nayak SS, Sathiyabalan D, Aditya NK, Das P. Assessing the Feasibility and Effectiveness of an App in Improving Knowledge on Oral Cancer-an Interventional Study. J Cancer Educ. 2018 Dec;33(6):1250-1254. doi: 10.1007/s13187-017-1239-y. PMID: 28612324
9. Naserian N, Ansari S, Abedi P. Comparison of Training via Short Messages and Group Training on Level of Knowledge and Practice of Middle-Aged Women About Breast Cancer Screening Tests. J Cancer Educ. 2018 Oct;33(5):1036-1042. doi: 10.1007/s13187-017-1203-x. PMID: 28299543.
10. The Lancet Oncology. Oncology, "fake" news, and legal liability. Lancet Oncol. 2018; 19:1135.
11. Biancovilli, P., Makszin, L. & Csongor, A. Breast cancer on social media: a quali-quantitative study on the credibility and content type of the most shared news stories. BMC Women's Health 21, 202 (2021). https://doi.org/10.1186/s12905-021-01352-y
12. Gebbia V, Piazza D, Valerio MR, Firenze A. WhatsApp Messenger use in oncology: a narrative review on pros and contras of a flexible and practical, non-specific communication tool. Ecancermedicalscience. 2021 Dec 13; 15:1334. doi: 10.3332/ecancer.2021.1334. PMID: 35211203; PMCID: PMC8816506.