

ORIGINAL ARTICLE

The role of psychosocial variables in breast self-examination practice: Results from focus group discussions in Surabaya, Indonesia

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Funding information

Kementerian Riset, Teknologi dan Pendidikan Tinggi

Abstract

Introduction: Breast cancer is a global life-threatening disease. Breast self-examination (BSE) followed by timely diagnosis and treatment is a viable screening method for populations with limited health care access such as Indonesia. Knowledge of the beliefs underlying BSE could benefit the development of future health education efforts to promote BSE and breast cancer awareness among Indonesian women, with the ultimate aim to achieve early detection and promote long-term survivals. The purpose of this study was to explore the underlying beliefs of BSE among women in Surabaya, Indonesia in accordance with the reasoned action approach (RAA) framework. Moreover, we investigated what these women considered an effective approach to improve breast awareness and promote BSE in their social networks.

Method: The participants included 62 women aged 18–55 ($M = 32,9$) in Surabaya, Indonesia who were divided into nine focus groups. Directed content analysis was employed to analyze the data.

Results: Six psychosocial determinants of performing BSE emerged from the analysis: knowledge, attitude and beliefs, risk perception, norms, perceived behavior control, and intention. Furthermore, the participants identified face-to-face meetings with visual media and healthcare professionals as effective channels to enhance breast awareness.

Conclusion: This study sheds light on the application of the RAA for BSE, and reveals the importance of face-to-face meetings involving healthcare professionals and women's social networks for breast education.

KEYWORDS

breast cancer, breast self-examination, early detection of cancer, good health and wellbeing, health behavior, mass screening, psycho-oncology, social determinants of health

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1 | INTRODUCTION

Breast cancer remains a public health concern, especially in low-and middle-income countries (LMICs) with limited access to timely diagnoses and treatment.¹ In Indonesia, breast cancer has the highest incidence among other types of cancer and is the second highest cause of death among women.² Despite its high mortality level, in Indonesia, awareness of breast cancer and need for early detection, timely diagnosis, and treatment are low: Approximately 70% of breast cancer patients present with advanced stages of breast cancer, which have a negative effect on treatment options and prognosis.^{3,4} Thus, the effort to achieve breast cancer early detection continues to be the main focus to improve the patients' prognosis and reduce cancer-related costs.

Mammography is the golden standard for breast cancer screening,^{5,6} however, there is limited access to it in Indonesia,⁷ which is why breast self-examination (BSE) is a breast cancer screening modality widely promoted by the government.⁸ There is ongoing debate regarding the efficacy of BSE in terms of mortality reduction, and the American Cancer Society (ACS) no longer recommends BSE to detect breast cancer in its early stages because it is not significantly associated with survival rates.⁹ However, in LMICs where women are usually diagnosed with breast cancer at advanced stages and there is limited health care access, as is the case in Indonesia, the benefits of BSE (i.e., promoting breast awareness by increasing knowledge about what is normal and recognising changes, increased medical advice-seeking behavior, and undergoing biopsies) might outweigh the disadvantages and facilitate earlier diagnosis and more enhanced treatment outcomes (see¹⁰⁻¹³). Therefore, following the suggestion of Albeshan et al. to promote a breast cancer screening program that is tailored to each country's unique needs,¹⁰ BSE - followed by medical examination when noticing any symptom - might be feasible to increase early detection of breast cancer in Indonesia.

Despite its potential benefits, the practice of BSE in Indonesia is low,^{14,15} and determinants of BSE are largely unknown. Some previous studies in LMICs identified psychosocial factors as the primary obstacles in early detection, that is, low perceived benefit and self-efficacy, high perceived barriers, a lack of breast cancer awareness, social taboos of cancer, misconceptions about cancer treatments, and beliefs in traditional medication.^{14,16} Although some research on breast cancer early presentation in Indonesia exists, this was conducted among women with breast cancer symptoms.¹⁷ There is as yet no research about the identification of potential beliefs that motivate BSE to achieve early presentation among women without breast cancer symptoms.

The current study employed the reasoned action approach (RAA; 18) as a theoretical framework to shed light on the potential beliefs and psychosocial determinants motivating BSE. The RAA postulates that individuals' decision to engage in health behavior is linked to their beliefs and their behavioral intentions, which in turn are linked to their attitude (instrumental vs. experiential), subjective norms (descriptive vs. injunctive), and perceived behavioral control (PBC;

capacity vs. autonomy) towards the behavior. In a meta-analysis, McEachan et al.¹⁹ revealed that RAA subcomponents are significant predictors of health behavior.

The purpose of this study was twofold: first, to explore the psychosocial determinants that underlie BSE-related beliefs and behavior; the second purpose was to explore perceptions of an effective approach to enhance breast awareness in Indonesian context. Accordingly, focus group discussions (FGDs) with Indonesian women were conducted to capture their lived experiences and on the determinants of breast cancer screening. The study findings could benefit the development of health education efforts to promote BSE and breast cancer awareness among Indonesian women (see²⁰).

2 | METHODS

2.1 | Participants and study setting

This study formed part of a broader project that explored factors that contribute to BSE and the development of a breast cancer awareness program among Indonesian women, particularly in Surabaya, Indonesia. A convenience sampling approach was used to recruit the study participants. The participants were recruited from seven sub-districts in Surabaya that had a low rate of breast and cervical cancer screening.²¹ Through the pembinaan kesejahteraan keluarga (PKK)¹ Surabaya city office, the researchers contacted the PKK chief in each of the seven sub-districts. Subsequently, PKK chiefs and research assistants approached women to participate in the study during the monthly PKK meeting, and screened them for eligibility.

A total of 62 eligible women were willing to join the FGDs, and were divided into nine groups based on their sub-districts. The inclusion criteria were: aged 18–65 years, never or rarely (≤ 3) performed BSE in the previous year, and having no history of breast cancer or other chronic illnesses. The FGDs were conducted between August and November 2018. The participants received 50,000 Indonesian rupiah and a basket of groceries (total approx. 10 Euro) as compensation.

2.2 | Procedure and materials

The FGDs were held in a room in the Faculty of Psychology Airlangga University, PKK village office, or sub-districts office. Every FGD was led by the first author or two psychology graduates. After the participants were briefly informed about the study, they signed written informed consent forms, and provided demographic information. Five bachelor students observed the FGDs, took notes of the participants' non-verbal responses, and transcribed the FGD they had observed. The duration of each FGD, which was audio recorded, was between 75 and 100 min.

The FGD interview protocol was constructed by employing the RAA as a conceptual framework to construct questions, and was

supplemented with questions about women's knowledge on breast cancer symptoms, risk factors, and perceptions about effective ways to improve breast cancer awareness in their environment (See Appendix for full protocol).

2.3 | Data analysis

The audio recordings (in Bahasa) were transcribed verbatim and compared with field notes to resolve any ambiguities in tone, and processed using ATLAS.ti version 8.3.1. Directed content analysis²² was employed to explore beliefs underlying BSE as well as a possible effective approach to improve breast awareness. Themes were clustered using the RAA framework.¹⁸ Additionally, an inductive process was used to explore different categories, which were subsequently grouped into themes, that emerged from the text. The first and third authors, and an independent researcher first analyzed three FGDs. Codes, categories and themes that were generated from these FGDs were compared, reviewed, discussed and refined until consensus was achieved, thus leading to an enhanced coding scheme and criteria. This coding scheme was employed to analyze the remaining FGDs. Part of the text were translated into English to enable a discussion of the codes and themes with non-Indonesian speaking co-authors.

3 | RESULTS

The majority of participants earned a low salary, did not have a family history of cancer, and were covered by health insurance (See Appendix). Six themes emerged related to psychosocial variables related to BSE practice, and one theme related to perceptions on efforts to increase breast awareness and early detection.

3.1 | Psychosocial factors related to Breast self-examination practice

Theme 1. Breast cancer and BSE related knowledge. The participants related that although they had heard about breast cancer, they did not know exactly what it was. Those who had heard about the disease noted it was frightening, dangerous and fatal. Some knew that breast cancer could be cured if detected early, metastasize to other organs, and chemotherapy, radiotherapy and mastectomy could be used to treat it. Some participants disclosed that breast cancer might asymptomatic and they did not know the cause and how to prevent it: *"From what I understand, breast cancer is a very scary disease and the cause is almost unknown"* (p. 18).

Various misconceptions were disclosed: respondents mentioned that breast cancer was contagious, caused by a bacterial infection, and could be cured by alternative medication. However, some

correctly stated the symptoms of breast cancer and that these could differ in each stage. They acquired information about breast cancer from TV, public figures, friends/family, the Internet/social media, medical books and newspapers.

The majority of the participants related that although they had never heard about BSE, they regarded it as interesting and important. Because the FDGs allowed us to provide brief information about BSE procedures, the participants felt that the advantages of BSE were that it can detect breast cancer early and improve breast awareness: They felt BSE allowed them to detect any abnormality sooner, and pursue diagnosis and treatment. Furthermore, they noted BSE was free and less shameful than consulting a doctor. However, misinformation, including believing that breast cancer could prevent breast cancer was noted. Additionally, most did not know the right time to conduct BSE and how to count fertile periods so as to start BSE. Some women who were able to explain the BSE procedures related various sources of BSE information: family, friends, leaflets in medical centers and PKK meetings.

Theme 2. Attitudes and beliefs. Most of the participants expressed a positive attitude towards BSE as an important health-protective behavior as it could improve breast awareness and allowed them to identify any breast abnormality early, which enabled a speedy recovery. They noted that the positive aspects of BSE outweighed the negative thereof.

However, some of the participants highlighted the disadvantages of BSE: feel ashamed, uncomfortable and afraid if they discovered any symptoms, which inhibited BSE: *"I feel afraid if I [examined my breast and] found any lump ... it will shock me. I am not ready"* (P. 46).

Some of the participants disclosed beliefs related to breasts and breast cancer, which may have also inhibited BSE: the breast was sensitive and an important female-symbolic organ, breast cancer was frightening and taboo, virgins should not examine their breasts often, and poor people who suffered from breast cancer had to accept their fate since the treatment cost was unaffordable.

Theme 3. Risk perception. Almost all the participants declared they and most women were vulnerable to breast cancer due to their poor health awareness, unhealthy lifestyles, breast-feeding issues, early menstruation, menopause, genetic factors, exposure to stress or previous health problems related to their breasts. They shared misleading information on what constituted a high risk for breast cancer: bra uncleanliness, a dirty body and environment, storing money in bra, sleeping with a bra, and never being pregnant. A few indicated that they did not feel at risk because they were physically active: *"... it is impossible that I would suffer from breast cancer, because I have a healthy lifestyle, I eat healthy food, I do exercises, thus I feel that I have the right for not being ill"*, (p. 38).

Theme 4. Subjective Norms. Most of the participants indicated that no one (or they were unaware of anyone) in their social network practiced BSE, since they did not generally discuss it due to embarrassment. While some acknowledged that if they knew someone who practiced it, they would appreciate this, and it would encourage them

to perform BSE, others related this would not affect them. *"If we know a person who performs BSE, I think it is good, she cares with her own health. If she could manage to be kind with and take care for herself, why wouldn't we [do the same]"* (p. 49).

Theme 5. Perceived behavior control. Most respondents believed they would be able to practice BSE because it appeared easy. They were also willing to learn the correct procedures of BSE. Some of the participants acknowledged their BSE behavior depended on whether they had more important priorities. Furthermore, their low motivation, which was displayed in forgetting to practice BSE and/or feeling lazy or too tired to perform BSE, also played a role in whether they performed BSE. Some related that if they were reminded by a cue, they would perform BSE: *"... but sometimes if I unintentionally exposed to objects related to it, I would remember to perform it. [for example,] I saw the news about breast cancer on TV, and I'd remember to practice it"* (p. 6). However, the practical notion that they could practice it themselves, and that it was a free screening method motivated them most.

Theme 6. Intention. The majority of participants related they were willing to practice BSE because of the advantages related to it: *"Yes, I would not think twice to perform it, if we think that it is good to prevent breast cancer"* (p. 49). However, they also stressed it was imperative to have proper BSE education. In contrast, a few participants indicated that they had no intention of practicing BSE as it was uncomfortable and they felt embarrassed, they were afraid of finding symptoms, or were not familiar with the procedures. They also perceived BSE was irrelevant as they had no breast cancer symptoms.

3.2 | Intervention approaches to improve breast cancer awareness

We asked the participants what forms of communication, and which people and/or organizations would be effective to improve breast awareness.

Breast consultation agents. While most of the married participants stated that their husband was the most likely person with whom they would like to consult, the unmarried participants preferred to discuss these issues with their parents and family, particularly their mother. *"For me, the first person whom I tell [about my breast problem] would be the one living in my home, my husband for sure"* (p. 54).

The participants shared they would be willing to undergo further examination if necessary, since a medical doctor would be able to suggest more advanced health advice. Although most of the participants preferred to consult with a (familiar) female doctor, their main priority was a competent medical doctor.

Communication patterns. Some participants believed that face-to-face meetings were most effective for breast education. The meetings could be incorporated with regular PKK meetings, or be part of a regular or incidental POSYANDU² meeting. Some participants noted regular meetings were more likely to be attended by more participants than incidental meetings because the former were already part of their schedule.

The participants believed that breast education should not merely involve verbal explanations, but other media such as presentations, breast statues, posters, and social media could be employed. Some participants cautioned against social media because not all women use it and the information provided might not be read or misinterpreted. The participants concurred that social media could complement face-to-face meetings. Although breast cancer survivors were mentioned as a source of information, information from health professionals (e.g. health ministry officials, medical doctors) was considered to be more convincing: *"I think it is more reliable that we get the information [of breast cancer] by the medical doctor"* (p. 29).

4 | DISCUSSION

Our findings revealed evidence of several psychosocial factors that contributed to performing BSE, such as breast cancer and BSE related knowledge, attitudes and beliefs, risk perception, perceived behavioral control, subjective norms, and intention. Generally, the majority of participants had limited breast cancer literacy, and gave evidence of misconceptions about breast cancer and unfamiliarity with BSE. Although most related they had heard about breast cancer, they admitted their knowledge about the symptoms, severity, risk factors and medical treatments was inadequate. Further, because BSE was new to them, their information about this procedure, the advantages, and when to perform it was limited. Because of their limited knowledge, the population under study could develop misconceptions, beliefs, and fear (see²³) which may inhibit the BSE behavior, and exacerbate their reluctance to seek medical advice upon noticing a symptom. Research has revealed a lack of awareness and knowledge about breast cancer in the Indonesian population, which could delay seeking healthcare (e.g.,²⁴⁻²⁶). Although knowledge does not lead to behavior change directly,²⁰ it is an imperative prerequisite for other behavior determinants: risk perception, beliefs, perceived norms and skills. Thus, it is vital to provide health education that contains correct and relevant information on breast cancer and BSE.

The respondents who had knowledge about breast cancer and BSE mentioned various sources for this information: their social network, health professionals, the mass media and social media. This finding concurs with Dewi et al.²⁷ who revealed that breast cancer related knowledge among Indonesian women was mainly acquired from the mass media and social media. In a systematic review of social media's effects on health promotion, Korda and Itani²⁸ found that social media can enhance health knowledge, behavior and outcomes effectively, suggesting that social media can be utilized to provide correct information and create awareness of breast cancer and BSE.

The findings further suggest that BSE performance was associated with both positive and negative cognitive and affective attitudes towards BSE. The participants perceived BSE as a beneficial screening method to identify any breast abnormality early and enable a speedy recovery. Although they were afraid and embarrassed to

perform BSE, they were positive that it was a free screening method and felt it was less embarrassing than a medical examination. This finding is in accordance with RAA,¹⁸ which posits attitude as a significant predictor of behavioral intention; as well as with the health belief model's (HBM) construct of perceived benefits of a certain behavior.²⁹ The latter model posits that if an individual perceives that BSE can effectively reduce the threat of suffering from a late stage of breast cancer, this could increase the likelihood performing this behavior (see²⁵).

Most of the participants indicated a high risk-perception towards breast cancer, which could increase their likelihood of performing BSE. This concurs with Al-Sharbatti et al.³⁰ who found that university students who perceived themselves to be at risk of breast cancer generally practiced BSE more. In this current study, the high risk-perception towards breast cancer was due to their misconceptions about the factors they believed made them vulnerable to the disease, thus revealing their low breast cancer literacy.

Due to the nature of the FGDs, we were able to provide information about BSE procedures to our participants. This enabled them to determine that they were able to perform BSE themselves, which may have increased their likelihood to perform BSE – essentially improving their perceived behavioral control, which is a significant predictor of health behavior, including breast cancer screening.^{14,31,32} However, the need for BSE education to be able to practice it correctly was emphasized by the participants as well.

The findings revealed the participants did not speak about breast cancer and BSE in their social networks frequently. However, they acknowledged that if those in their social networks had a positive attitude towards BSE and practiced it, they would be encouraged to do so. This is in line with research by Henriksen et al.,³³ who found that women in Denmark who were soon to receive their first invitation to participate in a breast screening program were influenced by their acquaintances' attitudes. It also reflects the communal nature of Indonesian society, characterized by a strong family support system that plays a major role in shaping health-related behaviors.³⁴

To sum up, the findings revealed evidence of psychosocial factors that contributed to BSE among the participants as breast cancer and BSE related knowledge, attitudes and beliefs, risk perception, perceived behavioral control, subjective norms and intention. The findings will further inform the key targets for future tailored breast awareness education among women in Indonesia. The ACS highlights the importance of breast awareness; that is, women should be familiar with the normal condition of their own breasts and promptly report to healthcare in the case of changes.⁹ Performing BSE may technically help to achieve breast awareness (see³⁵), and regularly practicing BSE³⁶ may help women to more quickly detect whether there is any change in their breasts compared to their normal condition. Furthermore, performing BSE regularly (i.e., once per month, a week after the initiation of the menstrual period, see³⁶) would help the women to schedule a fixed time to perform BSE as a tool to achieve breast awareness. Scheduling a regular behavior performance might promote greater perceived behavioral control that would improve the behavior occurrence (see¹⁸).

With regard to our second research objective, the respondents identified some effective strategies to promote breast awareness in their social networks. The participants related that face-to-face meetings that encompassed oral and written information could promote breast cancer awareness effectively, as well as informal meetings in which word-of-mouth and written information was. The participants noted that they trusted information from healthcare professionals more than from other agents. This concurs with Hesse et al.³⁷ and Viswanath and Ackerson³⁸ who found that physicians were a more trusted source of information than other sources. Thus, the involvement of healthcare professionals should be employed to communicate breast (cancer) education.

Potential breast consultation agents that the participants approved of were explored. While most of the married participants stated that they liked to consult with their husband, those who were unmarried preferred to discuss issues with their family, particularly their mother. This concurs with Kim et al.³⁹ who found that Korean Americans obtained health information from friends, Church members, and family. The participants acknowledged that after discussions with significant people, they were willing to consult with a medical practitioner, preferably a female doctor or a competent doctor they knew. This concurs with Jones et al.⁴⁰ who revealed quality of relationship with healthcare professionals (i.e., confidence in and interaction with) was considered as a determinant of early presentation among black women.

4.1 | Study limitations

This study has several limitations. First, most of the participants were married, housewives or unemployed and had a low family income. These demographic characteristics may have had a considerable influence on their perceptions and beliefs related to breast cancer and BSE. Thus, it is recommended that further quantitative research among the general population be conducted to confirm the findings. Second, because the participants were recruited through PKK meetings, those women who were socially active in the community and actively engaged in most PKK activities would be more likely to participate in the study, leading to potential bias. Finally, by employing FGDs, the participants may have responded to the questions in a socially desirable manner, which may have led to bias.

4.2 | Clinical implications

The study indicated several underlying beliefs of BSE motivation and relevant strategies to promote breast education, which further provides guidance for the development of a tailored intervention strategies to promote BSE among Indonesian women. The intervention should convey message on breast cancer and BSE literacy; incorporating strategies to promote women's positive attitudes and beliefs towards breast cancer and BSE, as well as to improve their risk perception towards breast cancer; and practicing relevant strategies

to improve women's skill and capacity to perform BSE. Furthermore, since Indonesian women are characterized by a communal culture, involving women's social network as their source of subjective norms is essential, for example, by involving PKK and POSYANDU. Community Healthcare Centers (CHCs, Indonesian: Pusat Kesehatan Masyarakat – Puskesmas) may also be involved to train the facilitators of PKK and POSYANDU, as well as serve as a reliable information source for breast education.

5 | CONCLUSION

Several underlying beliefs of BSE motivation framed within the RAA were identified. These findings can guide the development of intervention strategies to promote BSE under population being studied by providing guidance on what beliefs need to be strengthened, removed, changed or installed in Indonesian women to promote regular BSE performance. It is imperative to improve breast cancer and BSE literacy among women to increase their breast cancer awareness. Information on breast cancer, including symptoms, risk factors and skills to perform BSE and recognize normal and abnormal breast anatomy are imperative for breast education. Further quantitative research is needed to validate the six determinants of BSE practice revealed in this study. We believe that face-to-face meetings in which visual media and healthcare professionals are employed to enhance breast cancer awareness are imperative. Breast education should also involve significant others in women's social networks.

ACKNOWLEDGMENTS

The authors thank all of the respondents who agreed to participate in the study, PKK Kota Surabaya, Dr. Wiwin Hendriani for fruitful methodological discussion, and all the people who kindly helped us in conducting this research. This research was partly supported by the Indonesian Ministry of Research and Technology in 2020 under PTUPT research grant no. 880/UN3.14/LT/2020. The funder had no role in the design and conduct of the study; the collection, management, analysis, and interpretation of data; the writing of the manuscript; or the decision to submit the manuscript for publication.

CONFLICT OF INTERESTS

The authors declare no conflict of interest.

ETHICS STATEMENT

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Ethics Committee of Psychology and Neuroscience at Maastricht University (Ref #188_10_02_2018_S47) and Faculty of Public Health, Universitas Airlangga (Ref #151-KEPK). Informed consent was obtained from all individual participants included in the study.

AUTHOR CONTRIBUTIONS

Triana Kesuma Dewi, Robert A.C. Ruiter and Karlijn Massar are responsible for the conception and design of the study. Material preparation and data collection were performed by Triana Kesuma Dewi. The analysis was performed by Triana Kesuma Dewi, Robert A. C. Ruiter, Rahkman Ardi and Karlijn Massar. The first draft of the manuscript was written by Triana Kesuma Dewi. Triana Kesuma Dewi, Robert A.C. Ruiter, Rahkman Ardi and Karlijn Massar commented on previous version of the manuscript and approved the final version.

DATA AVAILABILITY STATEMENT

Data are available from corresponding author.

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ENDNOTES

- 1 PKK: Pembinaan Kesejahteraan Keluarga (Women's Family Welfare Movement), a nation-wide women's NGO that seeks to reach every married woman in a certain geographical area. It organized a regular meeting for its members every month.
- 2 POSYANDU is a basic form of health activity initiated by the government (Ministry of Home Affairs, Ministry of Health, National Board of Family Planning Coordination, and Family Welfare Movement (PKK), organized by and for the community, and assisted by the health worker. It serves families with toddlers (under 5 years old), who are invited to a monthly meeting for being weighed, receiving one portion of a healthy meal, and get a basic vaccination for free.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

How to cite this article: Dewi TK, Ruiters RAC, Ardi R, Massar K. The role of psychosocial variables in breast self-examination practice: results from focus group discussions in Surabaya, Indonesia. *Psychooncology*. 2022; 31(7):1169-1177. <https://doi.org/10.1002/pon.5905>

APPENDIX 1**Focus group discussion interview protocol****Breast cancer knowledge**

1. Please explain what you understand about breast cancer:
 - a. What do you know about breast cancer? How severe it is?
 - b. In your opinion, if someone is suffering from breast cancer, would they have specific symptoms? Please describe.
 - c. Do you think that these symptoms will be different in every stage? Please explain.
 - d. Do you think that breast cancer in an early stage is painful?
 - e. In your opinion, who is at a higher risk of getting breast cancer? Do you think you are vulnerable to it?
2. Where did you get breast cancer related information from?
3. If not familiar with breast cancer, do you think it could be an interesting topic?

BSE knowledge

4. Please explain what you understand about BSE:
 - a. What do you know about BSE?
 - b. In your opinion, who should perform BSE?
 - c. In your opinion, when should BSE be performed? How often? Please explain.
 - d. Do you know how to do BSE correctly? What are the procedures? Please describe.
5. Where did you get BSE-related information from?
6. If not familiar with BSE, do you think it could be an interesting topic?

Attitude towards BSE

7. In your opinion what are the advantages of doing routine BSE? Please describe.
8. In your opinion what are the disadvantages of doing routine BSE? Please describe.
9. In your opinion, is doing BSE correctly easy or difficult? Please describe.
10. What else do you associate with routine BSE?

Perceived behavioral control and skill

11. Do you think you would be able to conduct BSE correctly? Please explain.
12. Do you know how to calculate a woman's fertile period? Please explain.
13. What factors or circumstances would enable you to perform BSE?
14. What factors or circumstances would prevent you from performing BSE?

Subjective norms

15. Do you know someone in your environment who performs BSE? What are their experiences? How do you view this person?
16. Based on your experience, how does your environment view BSE?
17. Based on your experience, how does your environment view a person who performs BSE?

Intention

18. Do you have intentions of practicing BSE? Please explain.

Intervention approaches to improve breast cancer awareness

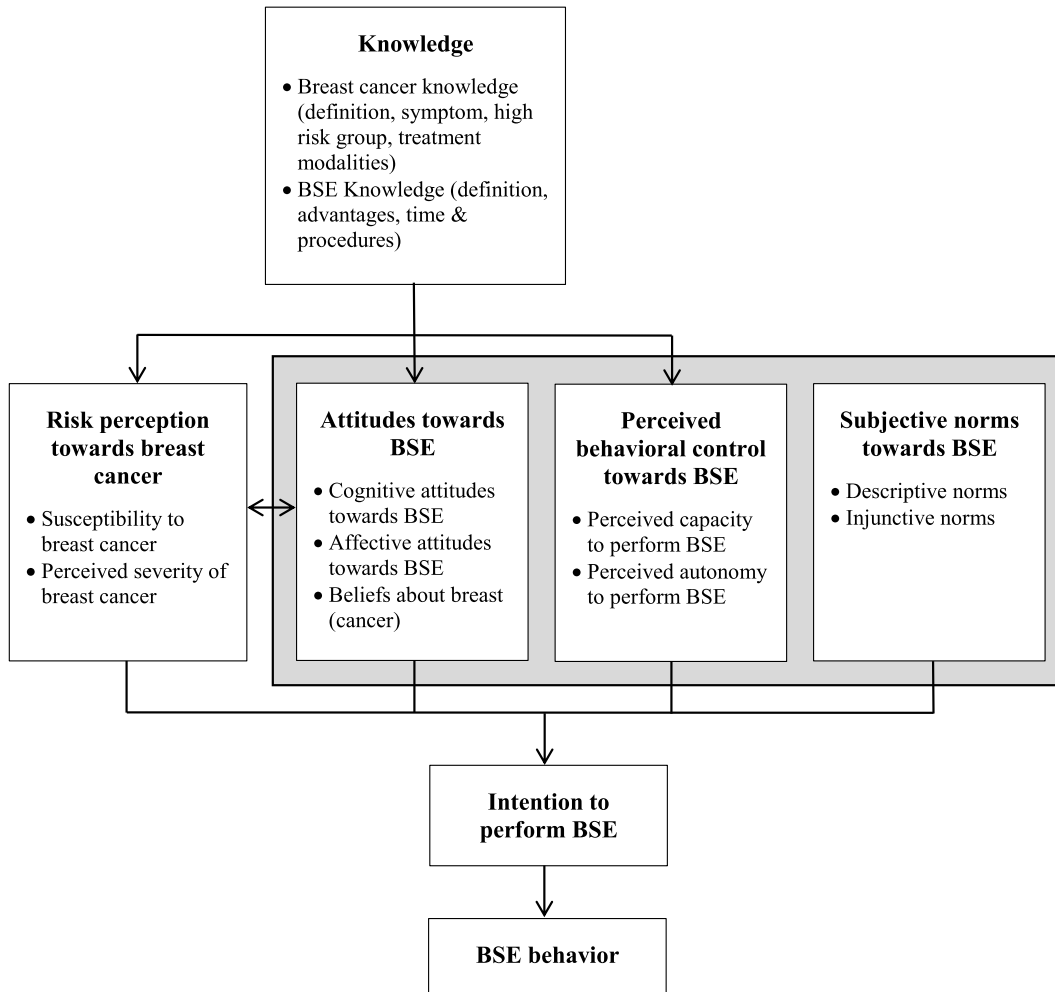
19. If you would like to discuss your breast health, with whom will you discuss it?
20. Did you ever discuss your breast health with other people? How do you feel about that?
21. In your opinion, who should be involved in efforts to improve women's willingness in your community to do routine BSE?
22. In your opinion, what is the best way to disseminate information about BSE in your community?
23. Based on your experience, how can information become easily accessible to all community members?

APPENDIX 2**Demographic characteristics of the respondents**

Variable	n (%)
Mean age (age range 18–55)	32.9
Marital status	
Single	14 (22.58%)
Married	45 (72.58%)
Divorced/Widowed	3 (4.84)
Education	
Elementary school	6 (9.68%)
Junior high school	9 (14.52%)
Senior high school	39 (62.90%)
College	8 (12.90%)
Employment	
Unemployed	41 (66.13%)
Student	4 (6.45%)
Private employee	10 (16.13%)
Public employee	2 (3.23%)
Entrepreneur	5 (8.06%)
Family monthly income	
<Rp. 3,000,000	40 (64.52%)
Rp. 3,000,000–10,000,000	19 (30.65%)
>Rp. 10,000,000	2 (3.23%)
No answer	1 (1.61%)
Family history of breast cancer	
No	52 (83.87%)
Yes	10 (16.13%)
Health insurance	
No	23 (37.1%)
Yes	39 (62.9%)

APPENDIX 3

Women lived experiences with BSE



Note: Determinants with dark grey shade – based on Reasoned Action Approach