

Women's Intrinsic Motivation in Conducting Breast Self-Examination

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Abstract

Introduction, early detection of cancer is an important action in addressing the high incidence breast cancer cases. The easiest early detection that women could do is breast self-examination(BSE). Previous research indicated a gap between knowledge and behavior towards breast self-examination. Intrinsic motivation is needed by women to perform breast self-examination. This study aimed to identify the intrinsic motivation of women reproductive age in performing breast self-examination in Kebonwaru District Bandung. Methods, this study was a descriptive quantitative study, the study population was women in reproductive ages. The samples were chosen using the simple random technique (n = 344). Data was collected using Intrinsic Motivation Inventory instrument which has been back-translated. Data were analyzed using descriptive analysis of frequency distribution and percentage. The results showed that the proportion of respondents who had the high intrinsic motivation and low intrinsic motivation were almost the same (54.1% and 45.9% respectively). The majority of respondents (84% of) had a high perception of importance and usability of BSE. 66.3% of respondents had a perception of suitability and interest along with high competence perception. In addition, 56.4% of respondents had a high perception of effort and choice. However, 57.4% of respondents reported an increased sense of stress and nervous when performing BSE. Conclusion, there is a need to maximize cancer prevention and promotion programs. For example, health education related to cancer prevention and treatment, accompaniment, and counseling, and providing information about the importance of early detection. That information could increase the intrinsic motivation of women to perform breast self-examination so a number of women's mortality caused by breast cancer could be decreased and breast cancers could be detected earlier.

Keywords: Breast self-examination, intrinsic motivation, reproductive age, women.

Introduction

Breast cancer is cancer with the highest number of incidents, which was 1.67 million cases or about 25% of all cancer cases in the world. The number of women in developing countries that suffered from breast cancer is higher than in developed countries. Asia countries rank first in new breast cancer cases worldwide with a percentage of nearly 40%. In Indonesia, the incidents of breast cancer were also the first ranked with a percentage of over 30% followed by cervical cancer with a percentage of 13% (International Agency for Research on Cancer, 2012).

According to the data of Basic Health Research 2013, the number of breast cancer patients in Indonesia was 61,682 people. Several provinces in Java island: Central Java, East Java, and West Java provinces had the highest rates of breast cancer incidence in Indonesia. The number of breast cancer cases in Central Java was 11,511 cases, in East Java was 9,688 cases and 6,701 cases in West Java (Ministry of Health Republic of Indonesia [Ministry of Health RI, 2015]).

The high incidence of breast cancer in Indonesia needed to be addressed by performing early detection. The coverage of early cancer detection in Indonesian women from 2007 to 2014 was only 2.4% (Ministry of Health RI, 2015). The purpose of early detection was to early cancer detection so that treatment is more effective, then to prevent death caused by cancer and improve quality of life (Sankaranarayanan, 2014). However, in fact the early detection action of Indonesia women found from those expected. The majority of breast cancer patients who came to the hospital was already in the advanced cancer stage, so the treatment was inadequate. Therefore, prevention actions are needed to increase women's awareness in recognizing symptoms and risks of cancer (Ministry of Health RI, 2015).

The early detection of breast cancer detection is breast self-examination (BSE). BSE Approximately 85% of breast abnormalities were found when performing breast self-examination (Ministry of Health RI, 2013). This examination is easy to perform, does not cost money and can be performed by woman itself. BSE performs

monthly and preferably on day 7 to 10 after the first day of menstruation. In menopausal women, they should perform breast self-examination on the same date every month (Ministry of Health RI, 2013).

According to Suh et al. (2012) study in Cameroon with a total of 120 respondents found that more than 70% respondents heard breast self-examination, almost 60% respondents knew how to perform breast self-examination and almost all respondents thought that breast self-examination was important to perform. However, only 35% of respondents performed breast self-examination every month, in fact early detection such as breast self-examination is an important early detection to reduce the rate of breast cancer occurrence. In addition, Ekanita's (2013) study found similar findings with previous study Eka's study assessed the behavior of women in reproductive age in performing breast self-examination in Banteran Village, Banyumas, Central Java. 93 women involved in this study, the result found that 50% of respondents never performed breast self-examination, 33.3% performed breast self-examination sometimes and routinely performed breast self-examination was less than 20%.

Women in productive age are women aged 15–49 years (BKKBN, 2011). Productive age women became a target in early detection of breast cancer because based on data from Khalili and Shahnazi studies (2010) that breast cancer is the most common cancer and the highest cause of death in women aged 33–55 years in Iran. In addition, according to research in Nigeria, breast cancer is the number one cause of cancer deaths in Nigerian women with the incidence peaked at the age of 30–40 years (Neji et al., 2016). This also happened in Indonesia, Hartaningsih and Sudarsa research (2014) obtained woman mostly suffered from breast cancer data aged 40–50 years then followed by aged 35–39 years in Sanglah Denpasar Hospital. According to Syafri et al. (2015) research the number of breast cancer patients in Al-Ihsan Regional Public Hospital Bandung mostly aged 25–50 years.

According to Elder (1994) to have healthy behaviour required three things which were knowledge, skills and motivation.

These three things were needed to support a person's healthy behavior. If a person had the knowledge and skills but was not motivated then it is called performance deficit (Notoatmodjo, 2010). Motivated means to do something (Ryan & Deci, 2000). Involvement of motivation on health behavior is very important for the maintenance and improvement of health (Ng et al., 2012).

Ryan and Deci (2000) divided the motivation into two types: intrinsic motivation and extrinsic motivation. When an individual had an intrinsic motivation, he would do something of his own willingness or support for his own behavior. Individuals who were intrinsically motivated would be able to retain behavior compared to individuals who were extrinsically motivated.

Batununggal sub district is one of the areas that had the highest number of productive age women in Bandung 2014 (Health Profile Bandung, 2015). Public health centre (PHC) available in Batununggal District was Ibrahim Adjie PHC. Based on data from The PHC Ibrahim Adjie, the referral number of breast cancer patients in 2015 was 21 people, in 2016 increased to 30 people and in 2017 (until May) was 8 people. So, there was a total of 59 people, of which 27 were among the women of productive age with the youngest age was 27 years old.

The PHC of Ibrahim Adjie had also conducted a counseling program about early detection of breast cancer in 2016. According to midwives who work in that PHC, if anyone came to the health center to check her breasts she will also be taught on how to perform breast self-examination to be performed at home. However, from 2016 to May 2017 only 3 people who came to the health center to conduct further breast self-examination inspection (Ani, Personal Communications, May 31, 2017). In addition, according to a nurse of community health nursing service and midwife in Kebonwaru, the incidence of breast cancer in this district is mostly in Kebonwaru, in 2016 there was one person and in 2017 there were two people who died from breast cancer (Titi and Rosita, Personal communication, May 31, 2017).

Based on an interview conducted with 10 productive age women in Kebonwaru District in June 2017, from 10 productive

age women only 1 woman performed breast self-examination routinely. The reason productive age women did not perform breast self-examination routinely because lazy, forgot, busy and afraid if when doing breast self-examination, they found a lump on her breasts.

Research Methods

The research method used was descriptive quantitative. The variable of this research was intrinsic motivation. The sub-variables of intrinsic motivation were the perception of importance and usability, the perception of effort and choice, the perception of suitability and interests, the perception of competence and stress and nervous. The population in this study was the entire productive age women in Kebonwaru Bandung, amounting to 2439 people. Samples were taken using simple random sampling technique ($n = 344$). The instrument used in this study was Intrinsic Motivation Inventory (IMI) which had been modified for breast cancer screening situations by Jung and Jo (2014). After conducted back translation on the instrument, content validity test was conducted to the supervisor who is an expert in the field of nursing maternity. Furthermore, face validity was performed on 10 women in Kebonwaru. The result was 10 women understood all statements on the questionnaire.

This research was conducted in Kebonwaru Bandung on June 17 until July 10, 2017. Data were analyzed using frequency distribution. Variables and subscales of intrinsic motivation were analyzed using median. Intrinsic motivation is set to be high if the score is ≥ 73 and is set to be low if the score is < 73 . For subscale perception of importance and usability as well as subscale of perceptions of effort and choice is set to be high if score ≥ 20 and set low if score < 20 . The subscale of perception of suitability and interest is set to be high if the score is ≥ 14 and is set to be low if the score is < 14 . The subscale of competency perceptions is set to be high if the score is ≥ 11 and is set to be low if the score is < 11 . While the stress and nervous subscale are set to be high if the score is ≥ 8 and is set to be low if the score is

<8. The final reliability value in this research is 0.870.

Research Results

There are two tables as the report of the study results including respondent characteristics and intrinsic motivation level of productive age women:

According to table 1, the education level of most respondents was a senior high school which was almost 60%. The majority of respondent's work were housewives. As many as 80.5% of respondents were married. Almost all respondents did not have a family history of breast cancer. Judging from information sources about breast self-examination, 40% respondents knew breast self-examination from healthcare workers

Table 1 Frequency Distribution of Respondent Characteristics (n = 344)

Characteristic	Frequency (f)	Percentage (%)
Last Education		
Did not attend school	5	1.5
Primary School	26	7.6
Junior High School	80	23.3
Senior High School	205	59.6
College	28	8.1
Occupation		
Housewives	241	70.1
Government Employees	4	1.2
Private Employees	37	10.8
Entrepreneur	10	2.9
Casual Worker	37	10.8
Unemployed (Students)	15	4.4
Marriage Status		
Single	67	19.5
Married	277	80.5
Has a Family Member Suffering Breast Cancer?		
Yes	67	19.5
No	277	80.5
Breast Self-Examination Information Source		
Electronic Media	116	33.7
Print Media	36	10.5
Friend	24	7.0
Health Professional	136	39.5
Family	14	4.1
Others	18	5.2
Perfomed Breast Self-Examination		
Yes	238	69.2
No	106	30.8

Table 2 Productive Age Women's Intrinsic Motivation and Sub-Scale of Intrinsic Motivation in Performing Breast Self-Examination in Kebonwaru Frequency Distribution (n = 344)

Variable/Subscale	Low		high	
	f	%	f	%
Intrinsic Motivation	158	45.9	186	54.1
Perception of Importance and Usability	55	16.0	289	84.0
Perceptions of Effort and Choice	150	43.6	194	56.4
Perception of Suitability and Interest	116	33.7	228	66.3
Perception of Competency	116	33.7	228	66.3
Stress and Nervous	146	42.4	198	57.4

Table 3 Productive Age Women's Actual Response on Each Intrinsic Motivation Questionnaire

Questionnaire Items	Not correct at All		Not correct		Slightly Correct		Correct		Very Correct		Mean
	f	%	f	%	f	%	f	%	f	%	
1. BSE is an important activity ^a	2	0.6	5	1.5	16	4.7	240	69.8	81	23.5	4.14
2. Trying hard to perform BSE ^b	5	1.5	22	6.4	45	13.3	237	68.9	35	10.2	3.80
3. Attached to BSE ^c	24	7	158	45.9	53	15.4	89	25.9	20	5.8	2.78
4. BSE could monitor health ^a	0	0	4	1.2	22	6.4	224	65.1	94	27.3	4.19
5. Performing BSE is enjoyable ^c	5	1.5	20	5.8	72	20.9	222	64.5	25	7.3	3.70
6. Performed BSE well ^d	7	2.0	31	9.0	92	26.7	196	57.0	18	5.2	3.54
7. Underpressured when performing BSE ^c	7	2.0	17	4.9	24	7.0	261	75.9	35	10.2	3.87
8. BSE has health benefits ^a	0	0	2	0.6	15	4.4	248	72.1	79	23	4.17
9. Willing to perform BSE ^b	5	1.5	11	3.2	38	11.0	261	75.9	29	8.4	3.87
10. BSE is enjoyable ^c	6	1.7	37	10.8	64	18.6	225	65.4	12	3.5	3.58
11. Satisfied with the performance when performing BSE ^d	5	1.5	29	8.4	71	20.6	223	64.8	16	4.7	3.63
12. Important to performed BSE correctly ^a	0	0	3	0.9	24	7.0	262	76.2	55	16.0	4.07
13. Trying very hard in performing BSE ^b	15	4.4	35	10.2	71	20.6	198	57.6	25	7.3	3.53
14. Performed BSE because had to ^b	4	1.2	14	4.1	36	10.5	256	74.4	34	9.9	3.88
15. Nervous performing BSE ^c	10	2.9	75	21.8	52	15.1	181	52.6	26	7.6	3.40
16. Improve knowledge ^c	3	0.9	13	3.8	30	8.7	253	73.5	45	13.1	3.94
17. Should perform BSE ^b	0	0	3	0.9	44	12.8	258	75.0	39	11.3	3.97

18. Believing BSE is useful ^a	2	0.6	2	0.6	14	4.1	269	78.2	57	16.6	4.10
19. Performed BSE well ^d	1	0.3	12	3.5	90	26.2	219	63.7	22	6.4	3.72

Additional information

a: Perception of Importance and Usability

b: Perceptions of Effort and Choice

c: Perception of Suitability and Interest

d: Perception of Competency

e: Stress and Nervous

and more than half of respondents had performed breast self-examination.

Table 2 presents more than half of respondents had high motivation in performing breast self-examination but almost half of the respondents had the low intrinsic motivation to perform. Judging from the intrinsic motivation subscale, almost 85% of respondents had a high perception of interest and use of breast self-examination. Almost 70% of respondents had perceptions of effort and choice and perception of suitability and interest in performing a high breast self-examination. More than 50% of respondents had high perceptions of effort and choice. But almost 60% of respondents feel stressed and nervous when performing breast self-examination.

Based on table 3, the highest respondents average score was in item number 4 which is about the importance of breast self-examination to be performed because it could monitor health conditions with a mean of 4.19. This statement item was included in the subscale of interest and usability perception. Whereas the lowest respondents average score was in item number 3 with a mean value of 2.78 which about the attachment of performing breast self-examination. This statement item was included in the subscale of suitability and interest.

Discussion

The results of the study found that more than half of productive age women respondents (54.1%) had high intrinsic motivation in performing breast self-examination. High intrinsic motivation would make women tend to behave well while performing breast self-examination so that women could feel

abnormalities in her breasts. According to Setiawati and Generous (2008) in Mashitoh and Montairo (2015) motivation was one of the factors that influence behavior change so that a person wants and then make it happen in the form of action. While 45.9% of productive age women had low intrinsic motivation in performing breast self-examination. Low intrinsic motivation tends to make a woman apathetic to perform breast self-examination because there is no will from herself. The lack of motivation in performing breast self-examination leads to the nature of laziness and unwillingness to perform breast self-examination (Rosanti, 2014). According to Sari (2016), in doing breast self-examination required strong ability and motivation to do so.

Judging from the intrinsic motivation subscale, almost 85% of respondents had a high perception of interest and usefulness. This means the respondent was performing breast self-examination because she considers breast self-examination as an important action for her. According to organismic integration theory, one of the four self-regulatory processes was identified regulation which behavior based on the individual's interests (Ryan & Deci, 2000). In this study, the behavior was breast self-examination and the item included in the identification setting were items on the subscale of importance and usability perceptions. Over 65% respondents voted correct on items included in this subscale. As in the statement item "I believe breast self-examination can benefit me", almost 80% voted correct on this item (Table 3). According to Ministry of Health RI (2013), about 85% breast abnormalities were found when performing breast self-examination

Furthermore, the perceptions of effort and choice subscale, more than 50% of

respondents had high perceptions of effort and choice. According to Deci and Ryan (2000) one of the basic need factors that influenced self-determination was autonomy. Basic needs were one of the factors that increase the power of motivation. Autonomy is the freedom that someone has in doing things based on his or her own choice. The choice referred to what they felt and came from within themselves. This was shown in the statement item "I perform breast self-examination because I wanted to" and "I performed breast self-examination because I had to". Over 70% respondents voted correct on these items (Table 3). A person who is autonomously motivated means he or she did something they desire or by their own support or encouragement (Deci & Ryan 2008).

The third subscale was the perception of suitability and interest. Over 65% of respondents had a high perception of suitability and interest. Judging from the "Performing breast self-examination is enjoyable" item statement, almost 65% respondents voted correct and more than 65% respondents voted correct on the statement item "When I performed breast self-examination, I thought about breast self-examination as something enjoyable" (Table 3). Intrinsic motivation is the motivation aspect that makes an individual feel comfortable and interested in doing something (Ryan and Deci, 2000). Productive age women who had high intrinsic motivation would feel pleased, interested and felt good doing breast self-examination.

The fourth subscale was the perception of competence. More than 60% of respondents had a high perception of competence. One of the three basic need factors that affect self-determination discovered by Deci and Ryan (2002) was competence. Competence was a person's ability to show what a person could do that impact the environment. This could be seen on the item "I think I am good enough in performing breast self-examination", more than 60% respondents voted correct. Almost 65% of respondents voted correct on the statement item "I am satisfied with my performance in performing breast self-examination" (Table 3). Activities that enabled a person to experience a sense of competence, would involve themselves because they have the intrinsic motivation

(Deci and Ryan, 2002). Increased intrinsic motivation, directly increased one's desire in their competence (Ryan and Deci, 2000).

The last subscale, nearly 60% of respondents had high stress and nervous category. One of the reasons women did not perform breast self-examination or lack of motivation to performed breast self-examination was because they were afraid of finding an abnormal lump in their breasts after performing breast self-examination (Sari, 2016). Based on the results of this study, 52.6% of respondents voted correct on the item "I feel very nervous when performing breast self-examination" (Table 3). This is also in line with the interviews result conducted during the preliminary study, 3 out of 9 informants who did not perform breast self-examination routinely said they were afraid of finding a lump in her breast if performing breast self-examination. The woman who wanted to perform breast self-examination felt that if she found a lump on her breast then she would become anxious and prefer not to perform breast self-examination (Desanti et al., 2010). Whereas according to Soemitro (2012) in Sari (2016), breast self-examination could help women to do therapy as soon as possible before becoming an advanced cancer stage. So, it took efforts to reduce stress and nervous in productive age women. One of the efforts was by providing information about cancer treatment would be more effective if it was found earlier (Sankaranarayan, 2014). The thing that could be done by nurses or other health personnel was by providing health education in the form of demonstrating, mentoring or counseling.

Conclusion

According to the intrinsic motivation research result of high intrinsic motivation with low intrinsic motivation was almost the same (54.1% and 45.9% respectively). Based on subscale 84% of respondents have a perception of importance and usability. 66.3% of respondents have a perception of suitability and interest and perception of high competence. In addition, 56.4% of respondents had high perceptions of effort

and choice. However, 57.4% of respondents reported an increased sense of stress and nervous when performing breast self-examination.

This study informed the need to maximize prevention and promotion programs such as health education in the form of demonstration, accompaniment and counseling along with providing information about cancer treatment would be more effective if found earlier so it could increase intrinsic motivation to perform breast self-examination so number of mortality caused by breast cancer could be decreased and breast cancers could be discovered earlier.

The recommendation to the next researcher is to conduct a research on the influence of demonstration, accompaniment and counseling on the intrinsic motivation of productive age women in performing breast self-examination or the relationship between the intrinsic motivation of productive age women with breast self-examination behavior and should also pay attention whether breast self-examination is performed correctly or not and routinely or not performing breast self-examination.

References

- BKKBN. (2011). *Batasan dan pengertian MDK*. Retrieved from <http://aplikasi.bkkbn.go.id/mdk/BatasanMDK.aspx>, at November 18, 2016.
- Deci, E.L., & Ryan, R.M. (2002). *Handbook of self-determination research*. USA: The University Of Rochester Press.
- _____. (2008). Self determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, 49(3), 182–185. doi: 10.1037/a0012801.
- Desanti, O.I., Sunarsih., & Supriyati. (2010). Persepsi wanita beresiko kanker payudara tentang pemeriksaan payudara sendiri di Kota Semarang Jawa Tengah. *Berita Kedokteran Masyarakat*. 26(3).
- Ekanita, P., & Khosidah, A. (2013). Hubungan antara pengetahuan dan sikap WUS terhadap perilaku pemeriksaan payudara sendiri (SADARI). *Jurnal Ilmiah Kebidanan*, 4(1).
- Hartaningsih, N.D., & Sudarsa, I.W. (2014). Kanker payudara pada wanita usia muda di Bagian Bedah Onkologi Rumah Sakit Umum Pusat Sanglah Denpasar tahun 2002–2012. *E-Jurnal Medika Udayana*, 3(6).
- International Agency for Research on Cancer. (2012). *GLOBOCAN 2012: Estimated cancer incidence, mortality and prevalence worldwide in 2012*. Retrieved from http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx, at October 29, 2016.
- Jung, S.M., & Jo, H.S. (2014). Intrinsic motivation factors based on the self-determinant theory for regular breast cancer screening. *Asian Pac J Cancer Prev*, 15(23), 10101-10106. doi: 10.7314/APJCP.2014.15.23.10101.
- Kemenkes RI. (2013). *Pedoman teknis pengendalian kanker payudara & kanker leher rahim*. Jakarta: Kemenkes RI.
- _____. (2015). *Situasi penyakit kanker*. Jakarta: Kemenkes RI.
- _____. (2015). *Stop kanker*. Jakarta: Kemenkes RI.
- Khalili, A.F., & Shahnazi, M. (2010). Breast cancer screening (breast self-examination, clinical breast exam, and mammography) in women referred to health centers in Tabriz Iran. *Indian Journal of Medicial Sciences*, 64(4). doi: 10.4103/0019-5359.97355.
- Masithoh, A.R., & Montairo, E.O. (2015). Motivasi untuk melakukan pemeriksaan payudara sendiri (SADARI) sebelum dan sesudah pendidikan kesehatan tentang kanker payudara pada wanita usia subur. *JIKK*, 6(1).
- Neji, O.I., Esienumoh, E., Kalu, U.V., & Bamidele, E.O. (2016). Breast cancer awareness and practice of breast self examination among women in adiabobo community in Odukpani Local Government Area of Cross River State Nigeria. *Clinical*

Nursing Studies, 4(1). doi: 10.5430/cns.v4n1p50.

Ng, J.Y., Ntoumanis, N., Ntoumani, C.T., Deci, E.L., Ryan, R.M., Duda, J.L., et al. (2012). Self determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science*, 7(4), 325–340. doi: 10.1177/1745691612447309.

Notoatmodjo. (2010). *Promosi kesehatan teori dan aplikasi*. Jakarta: Rineka Cipta.

Rosanti, F.V. (2014). *Motivasi remaja dalam melakukan tindakan sadari sebagai upaya deteksi dini kanker payudara di SMPN 2 Tembelang Jombang*. Retrieved from <http://repository.poltekkesmajapahit.ac.id/index.php/PUB-KEB/article/view/203>, at August 6, 2017.

Ryan, R.M., & Deci, E.L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54–67. doi: 10.1006/ceps.1999.1020.

Sankaranarayan, R. (2014). Screening for cancer in low- and middle- countries. *Annals of Global Health*, 80, 412–417. doi: 10.1016/j.aogh.2014.09.014.

Sari, E.A., Maryati, I., & Komariah, M. (2016). Motivasi mahasiswa keperawatan dalam pemeriksaan payudara sendiri sebagai deteksi dini kanker payudara. *Jurnal Ilmu Keperawatan*. IV(1).

Suh, M.A., Atashili, J., Fuh, E.A., & Eta, V. A. (2012). Breast self-examination and breast cancer awareness in women in developing countries: A survey of women in Buea, Cameroon. *BMC Research Note*. Retrieved from <http://www.biomedcentral.com/1756-0500/5/627>.

Syafri, M., Rachmawati, M., & Instuti, R. D. (2015). *Karakteristik penderita kanker payudara berdasarkan gambaran histopatologi di RSUD Al-Ihsan Bandung Periode 2011–2014*.