The Relationship of Girls' Motivation with Breast Self-Examination in Early Detection of Breast Cancer

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ABSTRACT

Slow detection of breast cancer causes higher progressivity and gives the impact of death. Early detection can be done by breast self-examination (BSE). The purpose of this research was to define the connection between motivation and the act of adolescent girls. Design this research is cross-sectional. The population in this research was a student of the faculty nursing the regular course. The sampling technique used was purposive sampling. The sample in this research was 100 respondents of 2012. The independent variable for which measured was motivation, either intrinsic and extrinsic, in doing realized and dependent variable measured was the act of early detection of breast cancer that was aware of. Data collection the research used questionnaires and analysis by test statistic the Spearman rho. With a significance $\alpha = 0.05$. The results of the research results showed that extrinsic motivation has no significant links (p = 0.952), and motivation intrinsic to realize also does not have a significant relation (p = 0.882). It can be concluded that there was no connection between the incentives adolescent girls with the act of considering to be the early detection of breast cancer. Further research is expected to increase adolescent motivation girls realized.

INTRODUCTION

Breast cancer or *carcinoma mammae* is the highest cause of death in women worldwide (1). Breast cancer is a significant public health problem because of its high mortality and morbidity. The number of breast cancer cases in the world ranks second after cervical cancer (2). Based on the World Health Organization (WHO) data, there are 580,000 cases of breast cancer each year in developing countries, and approximately 372.000 patients or 64% of the number of cases died of this disease. 78% of breast cancers attack women over 50 years, and 6% of women in their 30s (3). In countries that have high incomes, breast cancer is the leading cause of death in women aged 20-59 years. In Asia, the incidence of breast cancer is 20 people out of 100,000 (4). Breast cancer in Indonesia ranks second after cervical cancer. About 70% of patients have their condition checked at An advanced stage. Breast cancer can be detected if the motivation to do so has been around since teenagers (5).

Early detection of breast cancer is a simple thing that can be done at home called Breast self-examination (BSE) (6). This examination requires patience and a strong commitment, so motivation as the basis for important things [1]. Slow detection can affect the handling that will be given. The longer the cancer is detected, the progression of the disease has also been higher (7). If this continues, medical treatment will be less than optimal, and the patient's life will be increasingly threatened. The second impact is the disruption of confidence resulting from medical measures in the form of removal of all breast tissue to prevent the spread of cancer cells, the worst impact of all that is death (8).

Data from the American Cancer Society, about 1.3 million women are diagnosed with breast cancer, and each year around the world has approximately 465,000 women die from the same thing (9). Data from Globocan International Agency for Research on Cancer (IARC) shows that in 2014 new cases of breast cancer in Indonesia were 43.3%, and deaths caused by similar things were 12.9% (10). Based on the Republic of Indonesia Ministry of Health 2014, the prevalence of breast cancer in Indonesia is 40 per 100,000

women. In 2013, East Java occupied the fifteenth position with a total of 9,688 cases (11). While the data of breast cancer patients in Surabaya in 2011 were 36.92%, in 2012, it was 37.92%; in 2013, as much as 38.63% (12). BSE Motivation in adolescents is still relatively low. This is evident from a 2014 study in Stikes Surakarta Kusuma Husada with the results, less than 88 respondents self-awareness behaviors (52.7%) (13).

The latest research results in 2015 about BSE motivation in Stikes Muhammadiyah Surakarta showed the low motivation of young women in doing BSE as many as 51.5% of 100% respondents [2]. A similar study in 2012 stated that there were only 13.33% of respondents with low and high motivation despite immense knowledge (14). Some of these studies prove that extrinsic and intrinsic factors influence motivation. This is in accordance with *Self Determination Theory,* which states that three things affect the quality of motivation, namely lack of motivation or motivation, extrinsic motivation (encouragement that comes from outside), and intrinsic motivation (support that comes from oneself) (15). Motivation is the basic capital in taking action. If the motivation possessed by someone is less or low, then the effort made becomes less than the maximum, as well as the results of the effort. *Self Determination Theory* explains that motivation in implementing BSE is influenced by commitment and self-awareness (15). This can affect the formation of good and consistent BSE behavior, where behavior includes three things, namely knowledge, attitudes, and actions. These actions are the focus of the two researchers after motivation (15). This research aimed to determine the relationship between motivation and actions of young women in making consideration as an effort to detect breast cancer early [3].

Materials and Methods

The research method used was a descriptive correlative design with a cross-sectional approach. The population in this study were all university students in Surabaya from 2012 to 2015

class of nursing programs. One hundred samples were taken from the 2012 regular program. Sampling used was a purposive sampling or judgment sampling technique. The inclusion criteria of this study were all university students in Surabaya in the 2012 nursing program regular program, while the exclusion criteria included students who took part in student exchanges. Students who are on academic leave, and other class students who repeat the class of 2012.

The independent variables of the study were the extrinsic and intrinsic motivation. The dependent variable of this research was BSE action. The instrument used was in the form of a questionnaire developed from the treatment motivation questionnaire by Ryan, Plant, and O'Malley (1995) with modifications according to Self-Determination Theory (SDT) about extrinsic and intrinsic motivation, as well as an action questionnaire with one self-examination or not. The data obtained were analyzed using the Spearman Rho correlation statistical test with significance level $\alpha = 0,05$.

Table: 1. The results of a BSE interview

BSE Action	Class of				n	%
	2012	**2013**	**2014**	**2015**		
Never do BSE	6	3	5	5	19	47.5
Not doing BSE regularly	3	5	3	4	15	37.5
Regularly doing BSE	1	2	2	1	6	15
Total	10	10	10	10	40	100

Results

In table 1, students' desires or motivations tend to be less because BSE is felt to be less important and too complicated. The class of 2012 female students in conducting BSE actions tended to be lower compared to other classes.

Table: 2. Respondents demographic data

Respondents data		n	%
Age	21	3	3
	22	81	81
	23	16	16
	Total	100	100
Source of Information	Friends/Neighbours	20	20
	Health Services	15	15
	Books/leaflets/Magazines	15	15
	Internet/Social Media	47	47
	TV-Radio	3	3
	Total	100	100
Risk of Breast Cancer	Family History	14	14
	More dense breast tissue (young women and zero parity)	0	0
	Menarche aged < 12 years	3	3
	Risk of Radiation	1	1
	Smoking/Alcohol Consumption	1	1
	None	45	45
	Unknown	36	36
	Total	100	100

Table 2 shows that the distribution of respondents mostly aged 22 years is seen from the data of 81 respondents (81%). The majority of the respondents obtained information about BSE from the internet or social networks with data from 47 (47%) respondents. In the aspect of breast cancer risk, 45 respondents (45%) did not have breast cancer risk, 36 respondents (36%) had no risk, and did not know about family/hereditary cancer history.

Table: 3. The extrinsic and intrinsic motivation towards breast self-examination

Measured Variable	Category	n	%
Extrinsic Motivation	Strong	35	35
	Weak	65	65

	Total	100	100
BSE Actions	Once	14	14
	Never	86	86
	Total	100	100
Intrinsic Motivation	Strong	77	77
	Weak	23	23
	Total	74	74
BSE Actions	Once	14	14
	Never	86	86
	Total	100	100

Table 3 shows that 65% of respondents with extrinsic motivation have poor quality. The intrinsic motivation with a strong quality of 77%. The BSE action data from respondents who have never done BSE is 86%.

Table: 4. The relationship between extrinsic and intrinsic motivation with BSE

Breast Self-Examination Actions						
Extrinsic Motivation	**Once (n)**	**Percentage (%)**	**Never (n)**	**Percentage (%)**	**Total**	**%**
Strong	5	5	30	30	35	35
Weak	9	9	56	56	65	65
Total	14	14	86	86	100	100
p = 0,952						
Intrinsic Motivation						
Strong	11	11	66	66	77	77
Weak	3	3	20	20	23	23
Total	14	14	86	86	100	100
p = 0.882						

Table 4 shows that respondents with extrinsic motivation have poor quality and have never taken breast self-examination, consisting of 56 respondents. Statistical test results using the Spearman Rho correlation test obtained $p > \alpha$ (0.952 > 0,05), which means there is no relationship between extrinsic motivation with BSE. This happens because, for BSE respondents, it is not something that needed to be done immediately. Respondents who have intrinsic motivation with poor quality and have never done breast self-examination, consisting of 86 respondents (86%). The statistical result using the Spearman Rho correlation test obtained $p > \alpha$ (0.882 > 0.05), which means there is no relationship between intrinsic motivation and BSE action.

Discussion
Extrinsic motivation with breast self-examination in female students tends to below. This can be said to be good because extrinsic motivation is not dominant, so it does not affect intrinsic motivation. Because, if the extrinsic motivation is dominant, it will damage intrinsic motivation or natural motivation that exists within a person. In other words, if the female student does breast self-examination, the female student does of her own free will without coercion from any parties. Motivation in conducting BSE is still limited in terms of the control that will be carried out only if they feel the need and are influenced by external factors such as being told by the mother. This is consistent with motivation theory which explains that the higher the extrinsic motivation possessed by a person, it will reduce the quality of the

person's intrinsic motivation. This raises the nature of compulsion, and it is not good (15). The researcher thinks that extrinsic motivation is less influential on BSE., Especially if the extrinsic motivator does not understand health, especially BSE. Extrinsic motivation can come from teachers, friends, or the environment, such as health facilities and infrastructure. The low motivation of friends who do not care about health

can also result in individuals indifferent to their own health conditions. Individuals are indifferent because they feel it is a less important thing to do.

An illustration of the 2012 students' motivation to do BSE was that the majority had a strong intrinsic motivation. This strong intrinsic motivation is evidenced by the large number of respondents who choose answers that strongly agree with the intrinsic motivation statement on the questionnaire sheet. With the majority answering strongly agree with the statement will do breast self-examination to determine the condition of breast health. This can happen because of the level of education they have, namely as nursing students. Strengthened by Soekamto's motivational theory, namely, higher education influences one's understanding or knowledge of a matter, in this case, it is BSE by students (16). However, other studies say that although the majority of respondents have strong intrinsic motivation, it does not affect BSE actions (15). Intrinsic motivation is quite strong, but low implementation is caused by the absence of breast cancer risk in the majority of female students. The second factor is the lack of breast self-awareness is the ignorance of respondents about the history of cancer in their family [4]. These two facts influence the lack of BSE action by respondents.

The researcher believes that this fact and theory gap if adjusted to the concept of behavior, most respondents still cover two aspects, namely, knowledge and attitudes. The majority of respondents were still up to the level of attitude aspects. Where respondents are still at the second level, namely responding. That is, they will do if they are reminded while the minority of respondents who did breast self-examination have reached three aspects of behavior, namely knowledge, attitudes, and actions. But for the respondents' actions also have not been entirely through levels and stages.

CONCLUSION
The majority of female students have strong intrinsic motivation, which means that if they do, it is done without coercion. Respondents did not do BSE; as seen from 100

respondents, only 15 did BSE. High respondent's motivation does not affect BSE action. It means that even though the majority of respondents' intrinsic motivation is strong, of the 100 respondents, only 15 did this for several reasons such as there is no history, so they feel it is less important to do, long time-consuming action. The respondents' extrinsic motivation was weak, and BSE was not taken. Respondents are expected to use the bath's time to do breast self-examination so that it does not require special time and more time-efficient. Future studies are expected researchers can classify the level and stages of BSE actions taken by respondents.

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