



## COMPARING THE EFFECTIVENESS OF HEALTH PROMOTION WITH LECTURE METHOD AND SMALL GROUP DISCUSSION (SGD) METHOD ON BREAST SELF-EXAMINATION (BSE) KNOWLEDGE IN ADOLESCENTS

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### ABSTRACT

Breast cancer is the leading cause of death among women-related diseases. A delay in diagnosis and treatment contributes to the high fatality rate from breast cancer. Many women remain unaware of BSE (Breast Self-Examination) as an early detection method for breast cancer. Health promotion is essential to increase awareness and knowledge about early detection efforts. Two commonly used health promotion methods are lectures and Small Group Discussions (SGD). This study aimed to evaluate the effectiveness of these methods in improving adolescents' understanding of BSE. A pre-experimental study design (intact group comparison) with a two-group pre-test and post-test approach was conducted. A total of 188 participants were included in the study. Data were collected using a self-developed questionnaire designed to assess adolescents' knowledge of BSE. The Wilcoxon Signed-Rank Test was used to analyze pre-test and post-test results. The findings revealed a significant difference in the effectiveness of health promotion between the lecture method and the SGD method in enhancing BSE knowledge among adolescents, with a p-value of 0.002. Both methods improved BSE knowledge, but the lecture method was more effective.

**Keywords:** adolescents, breast self-examination, health promotion lecture, knowledge, small group discussion

## Introduction

One of the major health issues in Indonesian society that has been increasing annually and remains the leading cause of death is the rising prevalence of non-communicable diseases.<sup>1,2</sup> Cancer is one of the non-communicable diseases whose incidence continues to rise and can lead to death.<sup>3</sup> In Indonesia, breast cancer ranks first as the leading cause of cancer-related deaths, with a total of 65,858 cases or 16.6% of all cancer cases.<sup>4</sup> Currently, the incidence of breast has become a major concern for many women, as it is the most common type of cancer affecting women and a leading cause of death worldwide, including in Indonesia.<sup>5</sup>

The increase in the prevalence of breast cancer is primarily due to delays in diagnosis and treatment, leading to cases often being detected at an advanced stage.<sup>6</sup> If breast cancer is treated and treated late, the cancer cells will grow very rapidly and can spread to various other organs of the body commonly referred to as metastases. This can result in complications that further deteriorate the patient's health status and may ultimately lead to death.<sup>7</sup> In Indonesia more than 80% of breast cancer patients are found at an advanced stage due to delays in the first examination to health services.<sup>8</sup>

Breast self-examination (BSE) is a simple, cost-effective, and recommended early detection method for breast cancer.<sup>9</sup> BSE can be initiated during adolescence entering puberty where there are physical changes and the development of secondary sexual characteristics.<sup>10</sup> The development of secondary organs in adolescent girls is marked by the appearance of breast buds around the age of 10, progressing to fully developed breasts at approximately 13-14 years of age.<sup>11</sup> Performing BSE can reduce the mortality rate from breast cancer by 20%.<sup>12</sup> However, despite the many benefits and ease of practice many women in Indonesia are still reluctant to perform BSE.<sup>13</sup> The low awareness of early breast cancer detection is primarily due to a lack of knowledge, which is influenced by limited access to information about breast cancer and the benefits of early detection.<sup>14</sup>

Information to enhance knowledge can be obtained from various sources, one of which is through health promotion.<sup>15</sup> Health education in the form of health promotion is one way to influence the health behavior of individuals, groups or a community.<sup>16</sup> The most popular approach to health promotion is the lecture method, which involves giving information orally. However, another effective method is the Small Group Discussion (SGD) approach, which provides participants with greater opportunities to express their opinions, draw conclusions, and propose alternative solutions to issues.<sup>17</sup> Previous studies on health promotion related to BSE knowledge have demonstrated that the lecture method effectively increases knowledge after the intervention.<sup>18-20</sup> Similarly, research utilizing the Small Group Discussion method has shown comparable results, with a significant improvement in knowledge following health promotion through this approach.<sup>21,22</sup>

The lecture method of health promotion involves the oral delivery of information to an audience, typically in a group setting, to convey key messages effectively.<sup>23</sup> Meanwhile, the health promotion The Small Group Discussion (SGD) technique is a tutorial small group discussion that involves seven steps, from case emphasis to issue solving. The seven -step process includes; step 1, clarify foreign terminology; step 2, define the problem; step 3, brainstorm; step 4, analyze the problem; step 5, formulate learning problems; step 6, self-study and step 7, reporting.<sup>24</sup>

The health problems of school aged children are often overlooked by schools, parents, and healthcare practitioners, as the primary focus remains on toddler health.<sup>13</sup> Despite the complexity and diversity of health issues that school-age children, implementing health promotion strategies is essential in preventing these problems.<sup>25,26</sup> According to RISKESDAS data from the Indonesian Ministry of Health, there are around 17,000 cases of childhood cancer in Indonesia each year and the number is increasing.<sup>27</sup> More than 50% of childhood cancer cases are only detected at an advanced stage, highlighting the critical need for health promotion efforts among school-age children.<sup>28</sup> One of the most important health promotions is BSE as breast cancer patients are increasingly being diagnosed in adolescent girls. Some cases even involve 14-year-old girls with breast tumors, which, if not detected early, could develop into cancer.<sup>29</sup>

Health promotion plays a crucial role in shaping BSE behavior among adolescent girls as part of breast cancer prevention, as it provides essential information and understanding about BSE.<sup>30</sup> Based on these findings all junior high schools presented potential research sites. Therefore, the researchers selected SMPN 1 Cimalaka and SMPN 2 Cimalaka in Sumedang Regency as study locations.

SMPN 1 Cimalaka and SMPN 2 Cimalaka are public schools located in Cimalaka District, Sumedang Regency. Previous research has shown that health promotion using both the lecture method and the Small Group Discussion method significantly improves adolescents knowledge of BSE.<sup>18-22</sup> However, based on the preliminary study conducted by the researchers, many adolescents remain unaware of BSE, and there are still limited studies comparing the two health promotion methods, especially the SGD method with the 7-step technique. Therefore, this study aims to compare the effectiveness of the lecture method and the Small Group Discussion method in increasing adolescents' knowledge of BSE.

## Methods

This study employed a quantitative approach with a pre-experimental design using intact-group comparison. Repeated measurements (pre-test and post-test) were conducted for two intervention groups. The pre-test was taken before the intervention, and the post-test was administered after, to assess the treatment's impact. The post-test results were compared with pre-test results to determine the treatment effect.

The research was conducted at SMPN 1 Cimalaka and SMPN 2 Cimalaka in Sumedang Regency, West Java. Both schools were selected based on their similar characteristics, including the number of female students meeting the sample size requirements. Additionally, both schools were equipped with necessary facilities such as classrooms, internet access, and projectors, and shared similar social and cultural backgrounds due to their proximity.

The study used purposive sampling, selecting schools that had never received counseling on Breast Self-Examination (BSE). The interventions for each school were randomly assigned. SMPN 1 Cimalaka received a health promotion intervention using the lecture method, while SMPN 2 Cimalaka received the Small Group Discussion (SGD) method.

The sample size was determined using G\*Power 3.1 software based on the research design. G\*power was software that can determine the minimum sample for statistical tests in research.<sup>31</sup> In the parameter input column, the researcher used one-tail with an effect size of 0.5 alpha level ( $\alpha$ ) 0.05. The results obtained based on these parameters with a standard strength of 95% are 176 respondents who are divided into 2 intervention groups so that the number of samples given the lecture intervention is at least 88 people and the number of samples given the Small Group Discussion (SGD) intervention is at least 88 people. Based on the results of the minimum sampling, then in this study obtained a sample of 93 students given a lecture intervention and 95 students given an intervention in the form of Small Group Discussion (SGD).

A questionnaire developed by the researcher was used as the research instrument to assess participants' knowledge of breast self-examination (BSE) and validated and tested for reliability before use serves as the research tool in this study. The initial number of questions consisted of 30 questions, but after the validity test there were 2 invalid questions so that the number of questions on this questionnaire consisted of 28 questions with Multiple Choice Questions (MCQ) or multiple choice answers, where the respondent will determine the answer that is considered correct from the options provided. This study employed the guttman scale, a measurement scale that provides clear, firm and consistent responses. In this scale, the respondent's answer can be made the highest score 1 (for correct answers) and the lowest 0 (for wrong answers).<sup>32</sup>

Health promotion materials included PowerPoint presentations and leaflets. Leaflets were distributed to all respondents, namely lecture group respondents and SGD group respondents while the PowerPoint was only used in the group with lecture intervention. The power point in this study has 20 slides which presented only when delivering health promotion using the lecture method. The material presented includes the definition of breast cancer, risk factors for breast cancer, symptoms of breast cancer, understanding BSE, benefits of BSE, starting to perform BSE, the appropriate time to perform BSE and how to perform BSE. Power points and leaflets developed by researchers.

## Research Procedure

The research was conducted from August 2024 to September 2024. This research was conducted through 9 stages with the following description:

1. First stage: Problem definition and preliminary study
  - a. Define the research problem.
  - b. Conduct a literature review to collect supporting data.
2. Second stage: Sample selection
  - a. Selected two junior high schools in Sumedang Regency using purposive sampling.
  - b. Schools must never have received health counseling on SADARI.
  - c. Randomly assigned one school to receive the SGD intervention and the other school to receive the lecture intervention.
  - d. Select a minimum of 88 students (aged 12-15 years) from each school.
3. The third stage: Research permission and ethical considerations
  - a. Obtain research permission from the school authorities.
  - b. Explain the study to the teachers and principals.
4. Fourth stage: Intervention preparation
  - a. Prepare health promotion materials and media.
  - b. Recruit and trained facilitators for the SGD group (7th semester nursing students).
5. Fifth stage: Informed consent and group formation
  - a. Explained the purpose, objectives, and procedures of the study to participants.
  - b. Provide written consent to participants.
  - c. Group SGD participants into small groups (3-10 members).
6. Sixth stage: First SGD intervention meeting at SMPN 1 Cimalaka
  - a. Distribute the pre-test questionnaire (self-assessment).
  - b. Group formation: select group leader and secretary.
  - c. Share and discuss the BSE case scenario.
  - d. Use the seven-step approach (seven leaps) for 2 meetings:
    - Steps 1-5 (First Meeting): Equalize perceptions, define the problem, identify existing knowledge, analyze the problem, and set learning objectives.
    - Distribute take-home questionnaire for Step 6: self-directed learning using relevant literature.
7. Seventh stage: SGD intervention second meeting at SMPN 1 Cimalaka
  - a. Conduct the second SGD meeting (Step 7):
  - b. Discuss the findings from the individual research.
  - c. Administer the post-test questionnaire (self-assessment).
8. Eighth stage: Intervention lecture first meeting at SMPN 2 Cimalaka
  - a. Pre-test (self-assessment).

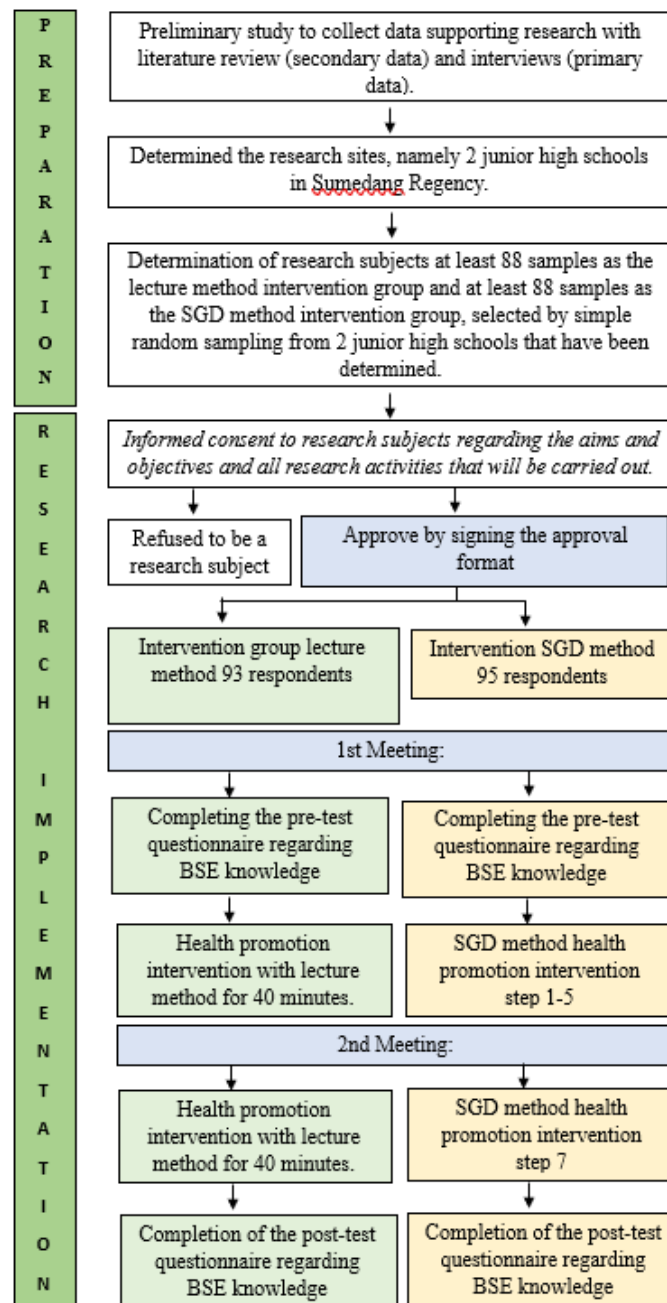
- b. PowerPoint presentation (40 minutes) covering: Definition of breast cancer, risk factors, symptoms, SADARI, benefits, and timing.
  - c. End with a question and answer session.
- 9. Ninth stage: Second meeting lecture intervention at SMPN 2 Cimalaka
  - a. PowerPoint presentation (40 minutes) on how to conduct BSE.
  - b. Question and answer session.
  - c. Post-test (self-assessment).

The validity test of this study was conducted on July 9, 2024 on students of SMP Negeri 1 Cimalaka. In testing the validity of all statements in the questionnaire tested using Pearson Product-moment correlation. In this research questionnaire consisting of 30 questions, there were 14 invalid questions and 1 question that could not be analyzed, so the researcher decided to revise these questions and then re-tested the validity of all research respondents. After testing the validity of all respondents, it was found that 2 questions were invalid, namely numbers 3 and 25. In this study, invalid questions will be discarded or not used so that the questionnaire used in this study has 28 questions.

The reliability test of the questionnaire in this study was carried out with the help of computer software using the Cronbach Alpha model. A variable is said to be reliable or consistent in measuring if the Cronbach Alpha value is  $> 0.60$ .<sup>33</sup> The instrument in this study had been tested for reliability and obtained a reliability result of 0.721 so that it can be said that this research instrument can be trusted.

In this study, data processing used computerized methods with the help of JASP 0.18.3.0 and SPSS 24.0. The Wilcoxon Signed Rank Test was used to analyze the data obtained from the pre-test and post-test questionnaires because they were not normally distributed. To determine whether there is a difference between the lecture pre-test and the Small Group Discussion pre-test, the Independent Samples T-Test test was used. Because there is a difference between the lecture pre-test and the Small Group Discussion pre-test, the data will be analyzed using N Gain. Data analysis to compare the effectiveness between the lecture method and the Small Group Discussion method will use the Mann Whitney test because the data is not normally distributed with  $p\text{-value} < 0.001$ . This study received ethical approval from the ethics committee of Ngudi Waluyo University on September 11, 2024 with ethics number 3/KEP/EC/UNW/2024.

## Research Flow

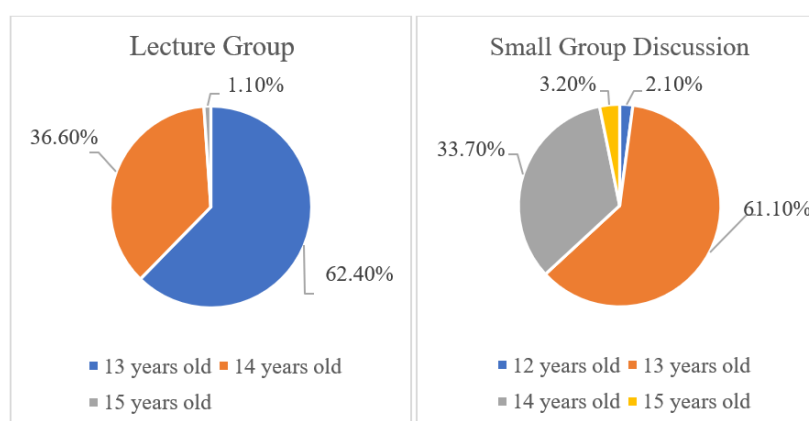


**Figure 1. Research Flow**

## Results

Respondents with lecture intervention aged 13 years were 58 people (62.40%), respondents aged 14 years were 34 people (36.60%) and respondents aged 15 years were 1 person (1.10%) based on figure 2. While respondents with Small Group Discussion intervention aged 12 years were 2 people (2.10%), respondents aged 13 years were 58 people (61.10%), respondents aged 14 years were 32 people (33.70%) and respondents aged 15 years were 3 people (3.20%) based on figure 2. The data showed that in both intervention groups most respondents were 13 years old.





**Figure 2. Demographic data of the lecture group and small group discussion by age**

Table 1 presented the descriptive frequency analysis of data describing the characteristic results of the research variables, specifically the level of knowledge of female students before and after they were given health promotion regarding BSE using the lecture method and the Small Group Discussion method.

**Table 1. Level of Knowledge Before and After Health Promotion with Lecture Method and Small Group Discussion method regarding BSE in adolescents (n = 188)**

No.	Level of Knowledge	Lecture Group				Small Group Discussion				Total			
		Pre-test		Post-test		Pre-test		Post-test		Pre-test		Post-test	
		F	%	F	%	F	%	F	%	F	%	F	%
1.	Less knowledge	75	80.6	18	19.4	54	56.8	24	25.3	129	68.6	42	22.3
2.	Moderate knowledge	16	17.2	47	50.5	34	35.8	41	43.2	50	26.6	88	46.8
3.	Good Knowledge	2	2.2	28	30.1	7	7.4	30	31.6	9	4.8	58	30.9
<b>Total</b>		93	100	93	100	95	100	95	100	188	100	188	100
<b>Mean</b>		1.2151		2.1075		1.5053		2.0632		1.3617		2.0851	
<b>Standar Deviasi</b>		0.46273		0.69879		0.63369		0.75527		0.57303		0.72628	

Based on table 4.1, It may be concluded that all respondents, including up to 129 students (68.6%), had a generally low level of understanding prior to receiving health promotion, as many as 50 students (26.6%) who had sufficient knowledge and as many as 9 students (4.8%) who had good knowledge about BSE. Then after being given health promotion about BSE, the respondents' knowledge was measured again and the results showed that 42 students (22.3%) had good knowledge, 88 students (46.8%) had sufficient knowledge and as many as 58 students (30.9%) had poor knowledge about BSE.

The level of knowledge of respondents in the health promotion group with the lecture method mostly had poor knowledge, namely as many as 75 students (80.6%), as many as 16 students (17.2%) who had sufficient knowledge and as many as 2 students (2.2%) who had good knowledge about BSE. Then after being given health promotion about BSE with the lecture method, the respondents' knowledge was measured again and the results showed that 28 students



(30.1%) had good knowledge, 47 students (50.5%) had sufficient knowledge and as many as 18 students (19.4%) had poor knowledge about BSE.

Prior to receiving health promotion via the Small Group Discussion approach, the majority of respondents in the Small Group Discussion intervention group had inadequate understanding, namely as many as 54 students (56.8%), as many as 34 students (35.8%) who had sufficient knowledge and as many as 7 students (7.4%) who had good knowledge about BSE. Then after being given health promotion about BSE with the Small Group Discussion method, the respondents' knowledge was measured again and the results showed that 30 students (31.6%) had good knowledge, 41 students (43.2%) had sufficient knowledge and as many as 24 students (25.3%) had poor knowledge about BSE.

**Table 2. Knowledge before and after health promotion using lecture and Small Group Discussion on BSE among adolescents (n = 188)**

Variabel	Lecture Group			Small Group Discussion			p-value
	Mean	SD	Min-Max	Mean	SD	Min-Max	(independet t-test)
<b>BSE knowledge (Total score 100)</b>							
Pre-test	43.510	13.955	17.8 - 70.5	52..626	17.596	10.7 – 96.4	<0.001
Post-test	66.322	17.812	35.7 - 89.2	67.323	16.517	21.4 - 92.8	
Difference	22.812			14.697			
Uji Wilcoxon	<0.001			<0.001			
(Paired t-test)							
<b>N-Gain</b>							
Post-test	0.400	0.271	(-0.388) – (0.822)	0.277	0.345	(-2) – (0.832)	0.002

Table 2 presents the data before the intervention with the lecture method, the respondents' BSE knowledge was at an average value of 43.510. While in the Small Group Discussion method intervention group, respondents' BSE knowledge was at an average value of 52.626.

The pre-test value of lecture with a mean of 43.510 and the pre-test value of Small Group Discussion with a mean of 52.626 so that there is a significant difference between the pre-test value of the lecture group and the Small Group Discussion group (p-value <0.001). Because there is a difference between the pre-test value of the Lecture group and the pre-test value of the Small Group Discussion group, then to measure the effectiveness between the two health promotion methods, a different test is carried out using the N-Gain value as shown in table 2.

The average post-test score of the respondents increased by 22.322 following the lecture technique intervention, bringing the total score of the respondents to 66.322. The average score of respondents following the Small Group Discussion technique intervention was 67.323, but the mean score of the respondents' post-test increased by 14.697 in the Small Group Discussion method intervention group.

Analysis of the pre-test and post-test results using the Wilcoxon rank test revealed a substantial increase in BSE knowledge in the group receiving lecture intervention with a p-value <0.001 (<0.005). Analysis using the Wilcoxon rank test on the pre-test and post-test in the group

with Small Group Discussion intervention there was also a significant increase in knowledge about BSE with a p-value  $<0.001$  ( $<0.005$ ).

The post-test difference between the two groups was analyzed using the Mann Whitney test to get a value of  $p=0.002$  ( $p<0.05$ ), which shows there is a difference between the lecture method group and the Small Group Discussion method group on BSE knowledge in adolescents. These findings support the hypothesis that the lecture method is more effective.

The results of the analysis showed that the intervention with the lecture method had an N-gain = 0.400. While the intervention with Small Group Discussion method has N-Gain = 0.277. Based on these findings, it can be said that the lecture approach is more effective than the small group discussion method in promoting health and increasing teenagers' knowledge about BSE. The lecture method's N-Gain value is higher than the small group discussion's.

## Discussion

Respondents' knowledge about BSE before the intervention in the form of health promotion with the lecture method and the Small Group Discussion method was 68.6% in the poor category. This is supported by research which found that most respondents (60.65%) with limited knowledge about BSE procedures had a junior high school education level and were in the early adolescent phase.<sup>34</sup> Junior high school is a basic education level in formal education where BSE has not been included in the learning curriculum at school so that information about the BSE procedure has not been obtained by respondents and in the early adolescent phase the ability to digest and process information from outside is still limited, causing knowledge about the BSE procedure to be lacking.<sup>34</sup>

Pre-intervention BSE knowledge varied between groups. The mean value of BSE knowledge was higher in the Small Group Discussion group than in the lecture group. Because the two groups have different mean values in the pre-test, it will affect the further analysis process so that data analysis to determine the effectiveness comparison of the two groups cannot be directly analyzed by distinguishing between the lecture post-test and the Small Group Discussion post-test, but must use N-Gain. N-gain is a test used to determine the increase in scores in a sample class in research. In the N-gain test, the average score of the initial data, namely the pre-test and the final data score, namely the post-test, will be compared and tested for improvement.<sup>35</sup>

The pre-test results in the lecture group showed that most of the students had insufficient knowledge about BSE, but after being given health promotion with the lecture method, students with insufficient knowledge about BSE decreased so that students with sufficient and good knowledge about BSE increased. Given that the pre-test and post-test findings showed an increase in knowledge, it can be said that health counseling delivered using the lecture technique can raise respondents' level of understanding. This is consistent with studies by Istiani and Rokhmiati

showing that early teenage girls at Gelora Depok Junior High School can learn more about BSE through the lecture technique.<sup>36</sup> This research is also supported by a study that showed an increase in knowledge about BSE after health promotion using the lecture method in adolescent girls.<sup>37</sup> The lecture technique is the delivery of oral communication to an audience to inform them.<sup>23</sup> For all targets, both highly and lowly educated, the lecture style works incredibly well.<sup>38</sup>

The pre-test results of the Small Group Discussion group showed that most of the students had insufficient knowledge about BSE, but after being given health promotion with the Small Group Discussion method, students with insufficient knowledge about BSE decreased so that students with sufficient and good knowledge about BSE increased. Given that the pre-test and post-test results showed an increase in knowledge, it can be said that the Small Group Discussion technique of health counseling can raise respondents' level of understanding. The study's findings are consistent with another study, which found that the group discussion method can increase teenage girls' knowledge of BSE.<sup>39</sup> Another study that supports this research is the results of research conducted by Ananda that there are differences in the knowledge of adolescents at SMPN 2 Pontianak before and after health promotion with the Small Group Discussion method.<sup>21</sup> Small Group Discussion (SGD) is a small group discussion (tutorial) which is the core of Problem Based Learning (PBL).<sup>40</sup> Small Group Discussion is an approach that is carried out on each individual to work together and share experiences in small groups.<sup>41</sup> Small Group Discussion aims to discuss and express their opinions with small groups. Discussion is one of the elements of active learning.<sup>42</sup>

Comparing the pre-test and post-test of the two interventions, the post-test results showed a better understanding of BSE (Breast Self-Examination) after the intervention, which could be a basis for improving or expanding health programs that focus on BSE education in other schools. Adolescents' understanding of BSE can be greatly increased through health promotion techniques like as lectures and small group discussions, but based on the results of the mean N-Gain value, health promotion using the lecture method is more effective in increasing adolescents' knowledge about BSE than health promotion using the Small Group Discussion method with a p-value of 0.002. If the speaker is proficient in the content they will be presenting, health promotion through lectures will be successful.<sup>43</sup>

This study differed from one that examined the Effect of Lecture and Group Discussion Methods on Adolescent Adherence to Consuming Blood-Additive Tablets, which discovered that the group discussion method is the most successful health promotion strategy for boosting teenage girls' compliance in taking blood-added tablets.<sup>44</sup> Group discussions bring good benefits to trainees, namely active interaction between group members and with the community service team. In addition, group discussions open up a broader understanding and knowledge of trainees, improve teamwork, are free to express opinions and accept the opinions of others, and hone the ability of trainees to analyze problems and find solutions.<sup>45</sup> In the context of learning, most learners actively

participate, share responsibilities, and respect the views of other group members, although some still lack collaboration or are reluctant to accept different points of view.<sup>46</sup> Another study found that the obstacles in implementing Small Group Discussions include variations in students' knowledge, experience, and interests during discussions, participation of introverted, quiet, or apathetic students in discussions, students' constraints in articulating ideas or opinions scientifically and systematically, and time constraints to conduct discussions efficiently.<sup>47</sup> This is in line with research involving interviews, where one participant expressed a desire to eliminate the "seven jump" step, considering it ineffective due to limited active participation.<sup>48</sup>

This study also contrasts with another that examined the Effectiveness of Sexual and Reproductive Health Education with Lecture and Small Group Discussion Methods on the Level of Knowledge and Attitudes of Adolescents aged 16-17 years, the results showed that the Small Group Discussion method is better used to increase knowledge about reproductive health in adolescents than the lecture method.<sup>29</sup> Factors that can cause differences in research results between previous studies and this study are age factors. Respondents in Rizqiyah's 2017 study were 16-17 years old while respondents in this study were 12-15 years old. This is further supported by a literature review that noted differences in average knowledge score outcomes between studies due to differences in the age of respondents.<sup>49</sup> The selection of health education methods depends on several factors, namely the characteristics of the target or participants such as number, economic status, age and gender; available time and place; and the specific objectives to be achieved by health education such as changes in knowledge, attitudes, or practices of participants.<sup>50</sup>

The Small Group Discussion method with the seven jump approach produces many positive impacts, including training independence, responsibility and learning to be a leader.<sup>51</sup> However, the Small Group Discussion method with a seven jump approach had 5 obstacles, namely long time, student activeness, discussion not on topic, lack of understanding, and lack of socialization<sup>48</sup>. Based on the results of research conducted by Prasandha & Utomo regarding the evaluation of basic teaching skills of students in the teaching campus program, 5% of respondents stated that they rarely divided students into small groups so that the method often used was the lecture method.<sup>52,53</sup>

The lecture method was considered effective for listeners of more than ten people, but boredom often arises if the material we convey is less interesting and too long according.<sup>54</sup> To prevent this, this study used the lecture method with powerpoint slide media. The media was considered quite effective because powerpoint slide media had several advantages, including an attractive presentation because there were variations in color, font, text animation and image or photo animation, thus stimulating students to find out more about the information presented.<sup>55</sup> Although in this study the lecture method of health promotion was more effective, the nursing profession can also implement health promotion using the SGD method because it can still increase

adolescents' knowledge about BSE. The differences between the results of this study and previous studies make limitations in this study.

## Conclusion

Based on the results of this study, it can be concluded that there are differences in the effectiveness of health promotion lecture method with health promotion Small Group Discussion method on the knowledge of SADARI in adolescents. Both lecture method health promotion and SGD method health promotion can increase adolescents' knowledge about SADARI. However, if the two methods are compared, the lecture method is more effective in increasing adolescents' knowledge of SADARI. Further research needs to be done to determine the adaptation of the SGD method for junior high school students. BSE education can also be incorporated into the school curriculum to increase adolescent awareness.

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## Conflict of Interest

The authors declare that there was no conflict of interest in the writing of this manuscript.

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