

[ISSN 2597- 6052](https://doi.org/10.56338/mppki.v7i11.6302)DOI: <https://doi.org/10.56338/mppki.v7i11.6302>**MPPKI****Media Publikasi Promosi Kesehatan Indonesia**
*The Indonesian Journal of Health Promotion***Research Articles****Open Access****Factors Associated with Sadari Behavior in Undana Fkm Female Students Class Of 2023****Marcianus N. R. Ratu^{1*}, Marni Marni², Petrus Romeo³, Ribka Limbu⁴**¹Universitas Nusa Cendana, | email ianreba46@gmail.com²Universitas Nusa Cendana | email marni@staf.undana.ac.id³Universitas Nusa Cendana | email petrus.romeo@staf.undana.ac.id⁴Universitas Nusa Cendana | email ribka.limbu@staf.undana.ac.id* Corresponding Author: ianreba46@gmail.com**ABSTRACT**

Introduction: Breast cancer is an abnormal cell growth in the breast that forms a tumor. Starting from the milk ducts or lobules, cancer cells can spread to surrounding tissues of the body and form a lump or thickening. If left untreated, cancer can metastasize and become life-threatening. Breast self-examination (SADARI) is an effective method of early detection, but the rate of implementation is still low among women.

Objective: This study aims to determine the relationship between knowledge, attitudes and peer support with SADARI behavior in public health study program students of FKM UNDANA class of 2023.

Method: The research method used was quantitative with a *cross-sectional* approach. The sample consisted of 50 female students of FKM UNDANA class of 2023 who were determined by *simple random sampling* technique. Data were collected using a questionnaire in the form of a *google form* and analyzed using the *chi-square* test.

Result: The results showed a significant relationship between knowledge ($p=0.001$), attitude ($p=0.001$), and peer support ($p=0.000$) with SADARI behavior. Most of the respondents had good knowledge (48%), positive attitude (70%), and good peer support (50%).

Conclusion: FKM Undana students need to increase their knowledge and positive attitude towards SADARI, making it a monthly routine. They should support each other and create an environment that encourages the practice of early detection of breast cancer.

Keywords: Breast Cancer; SADARI; Knowledge; Attitude; Peer Support

INTRODUCTION

Cancer is a large group of diseases that can start in almost any organ or tissue of the body when abnormal cells grow uncontrollably, going beyond their usual limits to invade adjacent parts of the body and/or spread to other organs. This latter process is called metastasis and is the leading cause of cancer death. Neoplasm and malignant tumor are other common names for cancer. Breast cancer is a type of cancer where abnormal breast cells grow out of control and form tumors. If left untreated, the tumor can spread throughout the body and be fatal. Breast cancer cells start in the milk ducts and/or milk-producing lobules in the breast. The earliest form (in situ) is not life-threatening. Cancer cells can spread to nearby breast tissue (invasion). This creates a tumor that causes a lump or thickening [1].

Based on data from the *Global Burden of Cancer Study* (Globocan) from WHO, the total cancer cases in Indonesia in 2020 reached 396,914 cases and total deaths of 234,511 cases. Breast cancer has the highest number of new cases in Indonesia at 65,858 cases or 16.6% of the total 396,914 cancer cases [2]. Based on data obtained from the East Nusa Tenggara Provincial Health Office, obtained for breast cancer in 2022, the screening results of 52,402 women with a percentage of 98.3% or as many as 51,518 women whose screening results were normal and there were 1.7% or 884 women whose screening results found lumps in their breasts. In 2023, the screening results for breast cancer were 133,859 women with a percentage of 99.7% or 133,439 women whose screening results were normal and there were 0.3% or 420 women whose screening results found lumps in their breasts [3].

The act of SADARI in women to detect breast cancer is still low, it was found that 53.7% of women in the world have never done SADARI and the remaining 46.3% have done SADARI. The prevalence of SADARI behavior in women of childbearing age is very low as 95.6% have never performed SADARI and only 4.4% of women of childbearing age have performed SADARI. This problem occurs because women of childbearing age have less knowledge about SADARI [4].

Research conducted by Herman & Hinga found that as many as 69.5% of regular students from semester 2 to 6 at the Faculty of Public Health as many as 82 people have done SADARI, but only 17.9% do it regularly, most students have good knowledge (65.8%), all students have a positive attitude, and most students do not do SADARI. Support obtained from parents (75.6%) and peers (71.9%) [5].

The following research conducted by Ataupah et al. found that from a sample of 381 unmarried young women aged 20-24 years in Kupang City, it was found that there was a relationship between knowledge (p -value = 0.030), attitude (p -value = 0.000), information exposure (p -value = 0.000), parental support (p -value = 0.000), and peer support. (p -value = 0.000) on breast self-examination (SADARI). Therefore, knowledge, attitude, information exposure, parental support, and peer support are associated with SADARI among adolescent girls in Kupang City [6].

Research conducted by Tari et al found that from a sample of 300 female students conducted at the Faculty of Public Health showed that there was a fairly strong relationship between knowledge (p -value = 0.000; C = 0.509) and information exposure (p -value = 0.000; C = 0.353) and a strong relationship between attitude (p -value = 0.000; C = 0.622) with SADARI, there was no relationship between family history (p -value = 0.128) and parental support (p -value = 0.675) with SADARI [7].

Knowledge is very important for a person to have, the more sources of information or peer support regarding the practice of SADARI examination obtained, it will change a person's attitude to perform SADARI behavior routinely and systematically. Whereas someone with less knowledge is lazy to apply the ability to perform SADARI in an effort to detect breast cancer early due to not knowing the benefits and objectives of SADARI examination, knowledge is obtained after a person senses an object or information about breast self-examination (SADARI) but if someone does not pay attention to the information described it will result in less understanding [8]. Based on the above background, the researcher felt the need to conduct this study with the title "Factors Associated with SADARI Behavior Among FKM UNDANA Students Batch 2023".

METHOD

This study used a type of quantitative research with a *cross-sectional* design to systematically collect data and measure variables of knowledge, attitudes and peer support associated with SADARI behavior in female students of FKM UNDANA class of 2023. The study was conducted from June to July 2024 at the Faculty of Public Health, Nusa Cendana University. The first independent variable is knowledge. Knowledge is everything that female students know about breast cancer and how to do SADARI which consists of 20 questions. The objective criteria were poor if the correct answer was <55% (≤ 11 questions), adequate if the correct answer was 56-75% (12-15 questions) and good if the correct answer was 76-100% (≥ 16 questions). The second independent variable is attitude. Attitude is a positive and negative response or opinion about SADARI consisting of 10 questions. The objective criteria were negative if the T score \leq mean T score and positive if the T score $>$ mean T

score. The third independent variable was peer support. Peer support is the support or motivation, both information and so on, provided by the respondent's friends to do SADARI, which consists of 6 questions. The objective criteria were less if the respondent's answer scored $<$ median value and good if the respondent's answer scored \geq median value. The dependent variable of this study was SADARI behavior. SADARI behavior is a habit related to efforts to detect early breast cancer by performing breast self-examination properly consisting of 10 questions. The objective criteria are not supporting SADARI behavior if the score is ≤ 5 and supporting SADARI behavior if the score is > 5 . The population in this study were all students of the FKM UNDANA public health study program class of 2023, totaling 134 students. The sample amounted to 50 female students who were calculated using the Lemeshow formula. The sampling technique in this study used *simple random sampling* method. Data collection uses *google form* as an instrument. The data was processed through four stages, namely *editing*, *coding*, *entry* and *data cleaning*. Furthermore, the data were analyzed using the *chi-square* test and the results of this study were presented in the form of tables and narratives. Validity and reliability tests were conducted at Poltekkes Kemenkes Kupang, East Nusa Tenggara. This validity and reliability test used 25 female respondents at the Poltekkes Kemenkes Kupang. The results showed that the questionnaire the researchers used was valid and reliable. Data analysis used *chi-square* test to see the relationship between knowledge, attitude, peer support with SADARI behavior. The measurement criteria only take respondents of class 2023 only to match the researcher's original research. This research has received ethical approval from the Health Research Ethics Commission, Faculty of Public Health, Nusa Cendana University with Number: 001037 - KEPK FKM UNDANA 2024.

RESULTS

Characteristics of Respondents

Table 1. Distribution of Respondents Based on Age and Class in Students of Public Health Study Program FKM UNDANA Batch 2023.

Characteristics	Frequency	Percentage (%)
Age (Year)		
≤ 18	8	16
19-20	42	84
Class		
Public Health A	17	34
Public Health B	19	38
Public Health C	14	28
Total	50	100

Source: Primary Data from Research Respondents 2024

Based on the characteristics of the respondents of FKM UNDANA Public Health students class of 2023, this study showed different patterns in age distribution and class composition. The age distribution showed that most of the respondents were in their late teens, between nineteen and twenty years old, while a small number of female students were eighteen years old or younger.

Regarding class distribution, the students were spread across three Public Health classes (IKM A, B, and C). Among the classes, IKM B had the highest percentage of respondents, followed by IKM A with a slightly smaller number of female students. IKM C has the least number of participants among the three classes.

These respondent characteristics provide insight into the composition of female students in the Public Health Study Program at FKM UNDANA class of 2023, highlighting that most female students are young adults in their late teens, with the majority being 19 or 20 years old during their studies.

Univariate Analysis

Table 2 Distribution of Respondents Based on Behavioral Variables, Knowledge, Attitudes and Peer Support in Public Health Study Program Students of FKM UNDANA Batch 2023.

Variable	Frequency	Percentage (%)
Behavior		
Support	21	42
Not Supportive	29	58
Knowledge		
Good	24	48

Variable	Frequency	Percentage (%)
Attitude	Fair	24
	Lack	28
	Positive	70
	Negative	30
Peer Support	Good	50
	Lack	50
	Total	100

Source: Primary Data from Research Respondents 2024

Table 2 shows some interesting patterns. In terms of SADARI (Breast Self-Examination) behavior, more than half of the respondents showed unsupportive behavior, while a minority showed supportive behavior. On the knowledge variable, most of the female students showed good knowledge about SADARI, followed by those who had less knowledge, while the smallest group showed a moderate level of knowledge. On the attitude variable, it showed that most female students showed a positive attitude towards the practice of SADARI, while a small proportion had a negative attitude. On the peer support variable, it showed that there was an even distribution between students who received good peer support and those who received less support.

Bivariate Analysis

Table 3. Distribution of Knowledge, Attitude and Peer Support with SADARI Behavior among Student of Public Health Study Program FKM UNDANA Batch 2023.

Variable	Support		Behavior Not Supportive		Total		P Value
	n	(%)	n	(%)	n	(%)	
Knowledge							
Good	15	62,5	9	37,5	24	100	0,001
Fair	6	50	6	50	12	100	
Lack	0	0	14	100	14	100	
Attitude							
Positive	20	57,1	15	42,9	35	100	0,001
Negative	1	6,7	14	93,3	15	100	
Peer Support							
Good	17	68	8	32	25	100	0,000
Lack	4	16	21	84	25	100	

Source: Primary Data from Research Respondents 2024

Based on the results of the chi-square test, this study showed a significant relationship between several factors and SADARI (Breast Self Examination) behavior among FKM UNDANA public health students class of 2023. In the knowledge variable, the analysis results show that female students who have good knowledge are more likely to show supportive SADARI behavior. Most students with good knowledge supported SADARI behavior, while students with moderate knowledge showed mixed support. Notably, female students with poor knowledge consistently showed unsupportive behavior towards SADARI behavior.

In the attitude variable, the relationship was very clear. Students with positive attitudes were both more likely to engage in behaviors that supported SADARI. In contrast, those with negative attitudes were more likely to exhibit behaviors that were not supportive of SADARI behavior.

The peer support variable also showed a significant relationship with SADARI behavior. Students who received good peer support were more likely to exhibit supportive SADARI behaviors. In contrast, those who lacked peer support were more likely to exhibit behaviors that did not support the practice of SADARI.

Statistical analysis confirmed a significant association between the three variables (knowledge, attitude, and peer support) and SADARI behavior among female college students. The findings emphasize the importance of these factors in promoting appropriate breast self-examination practices among public health female students.

DISCUSSION

Knowledge is the result of a person's observation and understanding of a particular object. It is very instrumental in shaping individual behavior. Individual knowledge is affected by information obtained from various sources such as occupation, age, and education [9]. The results of the analysis showed a significant relationship between knowledge and SADARI behavior among FKM UNDANA female students class of 2023. Based on table 3, it was found that female students with good knowledge showed a higher tendency to support SADARI behavior compared to those with sufficient or poor knowledge. This indicates that increased knowledge about SADARI may contribute to more supportive behavior.

This study is in line with research conducted by Siagian et al, where this study shows that there is a significant relationship between the level of knowledge about SADARI and SADARI behavior among 2021 Computer Science Study Program students at University X [10]. This is also in line with Tae & Melina's research which states that adequate knowledge about SADARI can increase positive attitudes and behavior in conducting early detection of breast cancer. Conversely, if knowledge about SADARI is low, then the behavior to do the examination will also be less good [11]. This study confirms that good awareness and understanding of early detection methods is very important to reduce the incidence of breast cancer in Indonesia, where women's awareness is still relatively low. This study is also in line with Nurfazriah's research conducted at SMKN 1 Cikukur, which found that there was a significant relationship between the level of knowledge and behavior of SADARI among female students. The results showed that 60% of female students had a poor level of knowledge, and their SADARI behavior was also classified as inadequate, with 60% showing poor behavior [12].

Factors that influence this knowledge include personal experience, education, beliefs, and available information facilities. Good education can provide greater insight into health, while personal experience can shape one's attitude and behavior towards health. Therefore, it is important to conduct more effective educational interventions to increase knowledge and awareness about the importance of SADARI. The suggestion from this study is that female students not only have good knowledge, but are also expected to carry out SADARI behavior regularly. Based on the findings of the study, it can be concluded that increasing knowledge about SADARI is very important to encourage early detection behavior of breast cancer. Efforts to expand this knowledge should be a priority in health education programs, especially among female college students, so that they can play an active role in maintaining their breast health.

Attitudes have an important role in shaping behavior, because attitudes reflect a person's views and assessments of an object or stimulus [13]. The attitudes that a person has can provide different directions in their actions. If someone has a positive attitude towards something, then they will tend to approach, seek information, and even actively participate, otherwise if someone has a negative attitude it can encourage someone to avoid or stay away from it [14].

The analysis showed a significant relationship between attitude and SADARI behavior. Based on table 3, it was found that female students who had a positive attitude towards SADARI were more likely to support SADARI behavior compared to those who had a negative attitude. An individual's attitude towards a behavior is very influential on their decision to do it, in this case SADARI behavior. This study is in line with research conducted by Ayattullah et al, where the results showed that there was a significant relationship between attitude and SADARI behavior [15]. The results of this study are also in line with research conducted by Siregar in which respondents who had a positive attitude had a 2.4 times chance of doing breast self-examination compared to respondents who had a negative attitude [16]. Another parallel study is research conducted by Wijaya, where it was found that most respondents had a positive attitude with good SADARI behavior, which means that there is a significant relationship between attitude and SADARI behavior [17].

Attitude is something that is learned and not innate, so it can be formed, changed, or developed. The process of attitude formation does not occur spontaneously, but involves social interaction between individuals and their environment. Attitude includes three main domains, namely cognition (knowledge and beliefs), affective (emotions or feelings) and the tendency to act [18]. The theory states that if even one of the three components of attitude is inconsistent with the others, there will be a misalignment that causes the mechanism of attitude change in such a way [19].

Based on the findings of the study, individual attitude plays a significant role. If a person has a negative attitude towards breast self-examination, they may be less interested and indifferent to the practice of SADARI. Meanwhile, if a person has a positive attitude, it can increase one's awareness and motivation to perform breast self-examination. This attitude is related to how individuals understand information about the examination. Positive attitudes tend to spur individuals to act when needed, while negative attitudes can cause delays or even avoidance of certain behaviors.

Behavior is the result of every human experience and communication with the environment which is shown as information, attitudes and activities. Behavior is a person's reaction or response to encouragement that comes

from outside or from within himself [20]. In line with Hasan et al, respondents who show SADARI behavior can be caused by stimuli that encourage respondents to do SADARI. Vice versa, if there is no encouragement for SADARI obtained by respondents, it makes them less motivated to do SADARI [21]. The encouragement obtained by an individual to do SADARI comes from the knowledge possessed by the individual, attitudes, exposure to information sources and the social environment. A good friend is someone who encourages their friend in a good way too. With a friend who clearly understands about SADARI, she will also tell her friends who do not know. A person's behavior and attitude can occur through direct experience, means, the influence of others who are considered important, and educational institutions.

Based on the findings of the study, it can be concluded that quite a lot of female students in this study have received peer support in the good category and respondents have also supported SADARI behavior.

The limitation in this study is related to women's breasts, so there are some respondents who feel embarrassed. Therefore, the researcher asked the respondents' willingness to fill out the *google form* and also explained that all information obtained was guaranteed confidentiality and used only for research purposes. In addition, the names of the respondents also used pseudonyms or initials to make the respondents more comfortable and open. The researcher conducted the research during the Final Semester Examination (UAS) vacation, so the research was conducted online by distributing questionnaires via *google form* by asking their level leader to help share the *google form* link to their *WhatsApp* group. After waiting a few days, the number of respondents who filled out the *google form* was still only a few respondents. So the researcher decided to contact the respondents one by one whose *WhatsApp* numbers the respondents had obtained from the *Excel* file of the list of 2023 students that the researcher obtained from the public health operator. Interaction with respondents was carried out via *WhatsApp* so that there were several messages that were not replied to by respondents. Therefore, the researcher made a random selection or randomly through *Excel* to get a new replacement respondent.

CONCLUSION

Based on the results and discussion, it can be concluded that there is a relationship between knowledge, attitudes and peer support with SADARI behavior in female health study program students of FKM UNDANA class of 2023. FKM Undana students need to increase their knowledge about the correct SADARI technique and its health benefits. It is important for female students to develop a positive attitude towards SADARI and make it a monthly routine. They are also advised to support each other and remind their peers about the importance of SADARI, and create an environment that supports the practice of early detection of breast cancer. FKM Undana is also advised to integrate material about SADARI into courses related to reproductive health and also the results of this study are expected to add to the literature of the public health study program which is useful and beneficial for lecturers and other students.

SUGGESTION

Future researchers are advised to expand the scope of the study to female students in other non-health faculties or universities to get a broader picture. Future researchers can also use qualitative research methods to explore the reasons behind knowledge, attitudes and behaviors that are not revealed by quantitative research.

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