The Level of Knowledge about Cervical Cancer and Breast Cancer in Women in Bali

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Abstract

Background: Cervical cancer is one type of malignancy that is a major and serious concern because it has a high incidence rate. In Indonesia, cervical cancer ranks second as cancer with the highest incidence and is the second most common cause of death after breast cancer. The high incidence of cervical cancer and breast cancer is caused by the level of knowledge about cervical cancer and breast cancer that is owned by the community, especially women.

Methods: This study is a descriptive – cross sectional study which aims to measure the public's knowledge of early symptoms and knowledge about risk factors for cervical cancer and breast cancer through the CCAM (Cervical Cancer Awareness Measure) and Breast Cancer Awareness (Breast Cancer Awareness Measure) Questionnaires. The total number of samples is 185 samples with an age range of 25-60 years.

Results: The data were analyzed descriptively on the elaboration of questionnaires and analytically with regression measurements and the results of the level of knowledge of cervical cancer in Bali Province were 43.8% in the low category, 54.1% in the medium category and 2.2% in the high category. Meanwhile, the level of knowledge of breast cancer in the province of Bali with low category is 44.9%, with medium category as much as 50.8% and high category as much as 4.3%.

Conclusion: Based on the results of the study, it was found that the level of knowledge about cervical and breast cancer in Bali is still relatively low. The low level of knowledge is one of the factors in the increasing incidence of cervical and breast cancer.

Keywords: cervical cancer; breast cancer; level of knowledge of cancer; early detection of cancer

Abstrak

Latar Belakang: Kanker serviks merupakan salah satu jenis keganasan yang menjadi perhatian utama dan serius karena memiliki angka kejadian yang tinggi. Di Indonesia, kanker serviks menempati urutan kedua sebagai kanker dengan angka kejadian tertinggi serta menjadi penyebab kematian terbanyak nomor dua setelah kanker payudara. Tingginya angka kejadian kanker serviks dan kanker payudara disebabkan oleh tingkat pengetahuan tentang kanker serviks dan kanker payudara yang dimiliki masyarakat khususnya wanita.

Metode: Penelitian ini merupakan penelitian deskriptif – cross sectional yang bertujuan untuk mengukur pengetahuan masyarakat terhadap gejala dini dan pengetahuan tentang faktor resiko kanker serviks dan kanker payudara melalui Kuisioner CCAM (Cervical Cancer Awareness Measure) dan Kuisioner Breast – CAM (Breast Cancer Awareness Measure). Total jumlah sampel adalah sebanyak 185 sampel yang memiliki rentang usia 25 – 60 tahun.

Hasil: Data dianalisis dengan deskriptif pada penjabaran kuesioner dan analitik dengan pengukuran regresi dan didapatkan hasil tingkat pengetahuan kanker serviks di Provinsi Bali dengan kategori kurang sebanyak 43,8%, kategori cukup sebanyak 54,1% dan kategori baik sebanyak 2,2%. Sedangkan tingkat pengetahuan kanker payudara di Provinsi Bali dengan kategori kurang sebanyak 44,9%, dengan kategori cukup sebanyak 50,8% dan kategori baik sebanyak 4,3%.

Kesimpulan: *Berdasarkan hasil penelitian didapatkan bahwa tingkat pengetahuan tentang kanker serviks dan payudara di Bali masih tergolong rendah. Rendahnya tingkat pengetahuan tersebut menjadi salah satu faktor meningkatnya angka kejadian kanker serviks dan payudara.*

Kata kunci: *kanker serviks; kanker payudara; tingkat pengetahuan kanker; deteksi dini kanker*

INTRODUCTION

Cervical cancer is a gynecological malignancy which is included in the 4 most common types of cancer suffered by women in the world.[1] Based on data from GLOBOCAN, the International Agency for Research on Cancer (IARC), in 2012 there were 528,000 new cases of cervical cancer, and it was increased to 570,000 new cases in 2018.[2] This type of cancer ranks second as the most common cancer suffered by Southeast Asian women and according to the World Health Organization (WHO), it is estimated that there are 570,000 new cases of cervical cancer in 2018.[1,3] In Indonesia, it is recorded that cancer is the highest in women is breast cancer with 65,858 cases and followed by cervical cancer with 36,633 cases.[4]

Based on gender characteristics, women have a higher cancer prevalence rate of 2.85% compared to men, which is 0.74%.[5] Several factors cause breast cancer in women, including age of menarche, gestational age, age of menopause, hormonal contraception, duration of breastfeeding, history of smoking, physical activity, stress levels, diet and obesity. Women who are menopausal over the age of 55 have a 30% higher risk of developing breast cancer.[6] Women who have menarche at a young age also have a 10% - 30% higher risk of developing breast cancer.[7] Women who give birth at a young age and breastfeed their children have a higher chance lower risk of breast cancer. The use of hormonal contraception can increase the risk of developing breast cancer by as much as 66%.[8] In addition, genetic factors such as mutations in tumor suppressor genes account for 10% of breast cancer cases in the world.[6] Women who have a family history of breast cancer have a 2 times greater risk developing breast cancer compared to women with no family history. This is because families who have inherited the BRCA1 gene have a greater risk of developing breast cancer.[9]

The Indonesian Cancer Foundation (YKI) has a Plenary Integrated Cancer Management (PKTP) program as an effort in cancer prevention. In Indonesia, this program has been implemented since 1996. Implementation of PKTP in the province of Bali has been carried out through several activities such as counseling, early detection (pap smear and BSE),

forming cadre groups involving youth and simulation activities in community groups. From 2000 to 2006, this program continued to develop innovations. In 2006 a school program was developed through PKTP which involved school children from elementary to high school levels as the target. Since 2006 - 2017 the PKTP school program has involved 297 schools in all districts/cities throughout Bali with the respective achievement levels of elementary school (4%), junior high school (22.6%) and senior high school (28%).

Since the launch of the National Movement for Caring for and Preventing Cervical Cancer by YKI in 2012, there has been a significant increase in the coverage of pap smear and IVA examinations in 68 YKI branches in Indonesia. In an effort to early detection, this year's PKTP program was developed again in terms of early detection regarding the level of knowledge and attitudes of the community, especially women aged 30-60 years regarding papsmears as one of the early detections of cervical cancer. The main goal of early detection is to find cases of cervical cancer at an early stage so that the chances of healing can be increased. Therefore, the level of understanding about cervical cancer and early detection of cervical cancer is needed, especially among productive women.

From the various descriptions above, the researcher is interested in researching the Knowledge Level about Cervical Cancer and Breast Cancer in Mothers in the Province of Bali.

METHODS

This study used a descriptive research method - cross sectional which was conducted in November 2018. This research was conducted in all districts in the Province of Bali. The number of samples in this study were 185 people who were obtained through a sampling technique using the consecutive sampling method. The sample was determined based on inclusion criteria, namely: (1) women aged 25-60 years in each district in Bali Province, (2) willing to be respondents, (3) participating in PKTP activities). As well as based on exclusion criteria, namely: (1) samples with ages under 25 years and over 60 years, (2) samples refused to be involved in the study, (3) did not take PKTP.

Measurements in this study used the CCAM (Cervical Cancer Awareness Measure) Questionnaire and the Breast-CAM (Breast Cancer Awareness Measure) Questionnaire. The CCAM questionnaire is used to measure the knowledge and attitudes of adult women about PAP SMEAR in an effort to detect early cervical cancer. The CCAM questionnaire consists of 9 questions with a total of 31 items. The Breast-CAM (Breast Cancer Awareness Measure) questionnaire is used to measure the knowledge and attitudes of adult women about breast cancer and efforts to detect early breast cancer. Questionnaires are a type of measurement used by researchers to collect data in a format given to subjects to answer questions in writing.

In research using quantitative methods, the quality of data collection is largely determined by the quantity of instruments or data collection tools used. The instrument is of high quality and can be accounted for when its validity and reliability have been proven. The instrument in this research is a questionnaire. The results of the questionnaire will be described in the form of figures, tables, statistical analysis and descriptions as well as conclusions and results. Data collection was carried out by researchers. To maintain data quality, researchers lead directly from the preparation stage to the end of data analysis.

Data were analyzed descriptively on the elaboration of the questionnaire and analytic with regression measurements. The analysis will clarify the relationship between knowledge and attitudes towards pap smears with early detection of cervical cancer. Data analysis was carried out using a regression test using the SPSS version 17.

RESULTS

This research succeeded in conducting interviews with 185 women participating in PKTP, where 185 of these people were spread across 9 areas of the province of Bali.

Table 1. Level of Knowledge of Cervical Cancer in Bali Province

	Frequency	**%**
Low	81	43.8
Medium	100	54.1
High	4	2.2

In this study, it was found that the average value of knowledge about cervical cancer for women participating in PKTP in the province of Bali was 61.82 ± 18.028 out of the maximum value of 100. From the total sample, 100 people (54.1%) had a level of knowledge that "medium", only 2.2%, or 4 people who have a "high" predicate in the level of knowledge about cervical cancer. However, the number of mothers' level of knowledge about cervical cancer is quite large, which is 81 people (43.8%). Exposure to the level of knowledge can be seen in Table 1.

This study also assessed the level of knowledge of cervical cancer among mothers based on regions in Bali. It was found that the area that received the most "high" scores in the knowledge level of cervical cancer was Buleleng, which was as much as 10%. Other regions only received high grades of 5%, namely Jembrana and Bangli. While other areas did not get a "high" score.

Table 2. Distribution of Cervical Cancer Knowledge Levels by Region in Bali

Region/ Number of Samples	**The Level of Knowledge of Cervical Cancer**		
	Low	**Medium**	**High**
Jembrana (20)	5 (25.0%)	14 (70.0%)	1 (5.0%)
Denpasar (21)	12 (57.1%)	9 (42.9%)	0 (0.0%)
Tabanan (20)	17 (85.0%)	3 (15.0%)	0 (0.0%)
Karangasem (20)	4 (20.0%)	16 (80.0%)	0 (0.0%)
Buleleng (20)	9 (45.0%)	9 (45.0%)	2 (10.0%)
Klungkung (20)	13 (65.0%)	7 (35.0%)	0 (0.0%)
Gianyar (24)	3 (12.5%)	21 (87.5%)	0 (0.0%)
Badung (20)	10 (50.0%)	10 (50.0%)	0 (0.0%)
Bangli (20)	8 (40.0%)	11 (55.0%)	1 (5.0%)

Table 2 also describes the districts that have the most "low" level of knowledge about cervical cancer, namely Tabanan, which is 85%. As for several cities that are classified as having a lot of "low" knowledge levels, they are Klungkung with 65%, Denpasar with 57.1%, and Badung with 50%. While other regions get a score of "low" below 50%.

In this study, the average value of knowledge about breast cancer for mothers participating in PKTP in the province of Bali was 59.98 ± 22.875 out of the maximum value of 100. From the total sample, 100 people (50.8%) had a level of knowledge that " medium", only 4.3%, namely 8 people who have the title of "high" in the level of knowledge about breastcancer. However, the number of mothers' level of knowledge about breast cancer is quite large, namely 83 people (44.9%). Exposure to the level of knowledge can be seen in Table 3.

This study also assessed the level of knowledge of breast cancer among mothers based on regions in Bali. It was found that the area that received the most "high" scores in the level of knowledge about breast cancer was Buleleng, which was 10%. The Gianyar area only got a high score of 6%. While other areas did not get a "high" score.

Table 4 also describes the districts that have the most "low" level of knowledge about breast cancer is Klungkung, which is 75%. As for several cities that are classified as having a lot of scores of "low" on the level of knowledge of breast cancer, they include Jembrana and Tabanan as much as 65%, Karangasem 55%, and Denpasar 52.4%. While other regions get a score of "low" below 50%.

Table 3. Level of Knowledge of Breast Cancer in Bali Province

	Frequency	**%**
Low	83	44.9
Medium	94	50.8
High	8	4.3

Table 4. Distribution of Breast Cancer Knowledge Levels by Region in Bali

Region/Number of Samples	**The Level of Knowledge of Breast Cancer**		
	Low	**Medium**	**High**
Jembrana (20)	13 (65.0%)	7 (35.0%)	0 (0.0%)
Denpasar (21)	11 (52.4%)	10 (47.6%)	0 (0.0%)
Tabanan (20)	13 (65.0%)	7 (35.0%)	0 (0.0%)
Karangasem (20)	11 (55.0%)	9 (45.0%)	0 (0.0%)
Buleleng (20)	5 (25.0%)	13 (65.0%)	2 (10.0%)
Klungkung (20)	15 (75.0)%	5 (25.0%)	0 (0.0%
Gianyar (24)	6 (25.0%)	12 (50.0%)	6 (25.0%)
Badung (20)	4 (20.0%)	16 (80.0%)	0 (0.0%)
Bangli (20)	5 (25.0%)	15 (75.0%)	0 (0.0%)

DISCUSSION

Based on the calculation results above, it shows that the percentage level of knowledge of mothers about cervical cancer and breast cancer in Bali Province is still in the medium category. The percentage level of knowledge about cervical and breast cancer in the high category is still much smaller than the low category. Thus, it can be concluded that the average woman in the Province of Bali still has an adequate and in medium level of knowledge about cervical and breast cancer, which is not enough to tackle and prevent the incidence of cervical and breast cancer which continues to increase over time.

Bali is an area that has very thick customs and culture. This will certainly affect the perception or mindset of the community towards the treatment of a disease, especially cancer. One of the reasons for postponing cancer treatment is belief in things related to spirituality.[10] Thus, the lack of knowledge about cancer, its prevention and treatment in Bali Province is one of the factors causing the increasing prevalence of cervical cancer and breast cancer.

Quoted from the Government Agency Performance Accountability Report (LAKIP) for the Disease Prevention and Control Program conducted by the Bali Provincial Health Office in 2021, it was stated that there were still several obstacles/problems faced in carrying out early detection of cervical and breast cancer. Some of the obstacles encountered include: (1) obstacles in finding targets, especially women who have a history of being sexually active and women of childbearing age (WUS) who are sexually active but are not married, and (2) the low participation of women aged 30-50 years in participating in early detection of cervical cancer and breast cancer because awareness of the importance of early detection of cervical and breast cancer is still low, as well as shame and fear of carrying out early detection.[11]

Several factors influence people's attitudes and awareness of early detection of cervical and breast cancer, namely the level of education and level of knowledge about early detection of cervical and breast cancer. This is in line with research conducted by Utami in 2020 which concluded that the final level of education is one of the factors that can lead to low knowledge of early cancer detection in the Province of Bali. In addition, the incidence of cervical cancer is influenced by socioeconomic level related to low knowledge about the dangers of cervical cancer and the ability to perform early detection of cervical cancer.[12]

Research conducted by Vio Nita in 2020 explained that reproductive health problems caused early detection to be carried out late due to a lack of knowledge about cervical cancer, such as how to keep the genital organs (vagina) clean and how to detect cervical cancer early.[13] Level of awareness and knowledge about early detection Cervical cancer and breast cancer which fall into the medium category are still considered to be the main obstacle in efforts to detect early cervical cancer and breast cancer. This is because people still have the notion that cancer is a disease that is embarrassing, deadly and difficult to cure and requires very high costs to treat. Knowledge about examining the internal organs is also a major obstacle for women because women still think that the examination will cause embarrassment, worry and fear when the examination is carried out.[14]

Health education is an important thing that must be done as an effort to increase public awareness, especially women, so that they pay more attention to the health of their breasts and genital organs. Health education is an appropriate method of providing breast and reproductive health information to the public, especially women and mothers as an effort to reduce mortality from cervical and breast cancer.[13] This shows that health education is important to implement as an effort to prevent the occurrence of cervical cancer and breast cancer. The definition of health education is not only providing information to the community through counseling, but also an effort or learning provided to the community with the aim of fostering community interest in taking actions to maintain and improve the quality of life and health (Health Promotion Book). Based on research by Sri Juwarni and Masdewi Nasution in 2018 it was concluded that health education has an influence on increasing knowledge, changing attitudes and behavior towards cervical cancer.[15]

CONCLUSION

Cervical cancer and breast cancer are types of cancer that have the highest incidence in women. Lack of knowledge about cervical and breast cancer is a factor in the increasing incidence of cervical and breast cancer. The level of knowledge about cervical cancer in women aged 25-60 years in Bali Province is in the low category as much as 43.8%, in the medium category as much as 54.1% and in the high category as much as 2.2%. While the level of knowledge about breast cancer in women aged 25-60 years in Bali Province is in the low category as much as 44.9%, in the medium category as much as 50.8% and in the high category as much as 4.3%.

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