

Community Collage Service (KKN) student assistance to improve women's health by detecting breast cancer and cervical cancer in Amansari Village, Karawang Regency

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ABSTRACT Non-communicable diseases are responsible for 71% of the premature deaths worldwide. Unfortunately, 77% of those deaths occurred in the developing countries including Indonesia. In response, universities can provide potentially empowering health promoting programs for tackling the risk factors of non-communicable diseases. This study was aimed to explain the process of how to empower universities for tackling these non-communicable diseases' risk factors through the Health Promoting University (HPU) program. This study was a descriptive study. The population included Indonesian universities that were involved in the HPU development program in 2019-2021 in collaboration with Universitas Gadjah Mada and The Ministry of Health Republic Indonesia. Sample subjects were the total population of 40 universities. Data were collected through observations, unstructured interviews, and documents. Observations were performed in 25 universities. Meanwhile, unstructured interviews were conducted with 34 respondents. Data were analyzed descriptively. The process of the HPU development and the focus programs were varied. Many factors contributed to the process of the HPU development, such as the HPU development strategies, the university leaders' commitment, networking, social capital, and participants' capacity in the health promotion. According to the HPU development process from 2019-2021, the HPU development strategy performed in 2021 was the most structured and comprehensive. The capacity building, mentoring system, leader commitment, and networking strongly contributed to the success of the HPU development. This study emphasizes the importance of the university leaders' awareness toward health and the potential resources of the university for tackling the risk factors of the non-communicable diseases.

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1. Introduction

Based on data from the Ministry of Health in 2022, the number of new cases for breast cancer account for 65.858 people, while the new case for cervical cancer is 36.633 people.¹ The highest cancer suffered by Indonesian women is breast cancer with an incidence of 26 per 100.000 women, followed by cervical cancer with 16 per 100.000 women, leukemia with 4.342 people (10.4%), lymphoma 3.486 people (8.3%) and lung cancer 3.244 people (7.8%).²

The impact of cancer is enormous which involve not only at individual and family level, but also at

community level. These included the high financial cost of cancer resulted from long-term treatment for cancers.³⁻⁶ A preliminary study from Phase II of ASEAN Costs in Oncology showed that 85 % of patients and families went bankrupt because of the costs of drugs and cancer treatment. Cancer has the potential to make middle and low economic families become poorer.⁷⁻⁹ According to the Jamkesmas (Health Insurance for the Poor) report, it was shown that in 2012 cancer treatment ranked second after hemodialysis, reaching 144.7 billion rupiahs.¹⁰

Although Breast Cancer and Cervical Cancer are the most common cancers in women today, early detection of both types of cancer can be done with inexpensive and simple or simple appropriate

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technology and improving the quality of treatment by early detection using the Clinical Breast Examine (CBE), better known as BSE for breast cancer, and IVA and Pap smear methods for cervical cancer will accelerate the handling of these two types of cancer, so that the prognosis will be better and the cost of treatment services can also be reduced.^{11,12}

The WHO report states that IVA can detect pre-cancerous lesions (High Grade Precancerous Lesions) with a sensitivity of around 66-96% and a specificity of 64-98%. While Positive Predictive Value and negative Predictive Value are between 10-20% and 92-97% respectively (Wijaya Delia, 2010). IVA is done by dripping acetic acid into the cervix and seeing whether there is a change in mucosal color, if there is a change in mucosal color, the woman is recommended for further examination and referred to the Regional General Hospital (RSUD).⁵

Rengasdengklok sub-district covers an administrative area consisting of 6 villages including, North Rengasdengklok, South Rengasdengklok, Amansari Village, Kemiri Village, Karyasari Village and Kertasari with an overall area of 2.625.924 hectares. Aman Sari Village is included in the Citarum River Stream, based on the village and sub district development checklist and potential village and urban village questionnaires. The number of women in Amansari village is 4,487 with reproductive age of 2.045 people, the highest age at 19 years for 105 people, the number of patients suffering from cancer as many as 2 people in 2018. The participation of citizens and village apparatus such as not maximally moving because there is still a lack of a list of levels of development of villages and urban villages as well as a list of potential villages and villages.

In the context of health care staff shortage in the rural area, the role of cadres in Posyandu is crucial. They consider have close ties with the communities and understand complex sociocultural issues around health in their community. However, education and training for health care staff and cadres in rural area remain limited. In support to health care staff and cadre role in delivering breast and cervical cancer program in rural area, Community Collage Service motivated to assist the program implementation through staff and cadres training for early detection

of breast and cervical cancer and BSE, as well as community cancer screening.

2. Method

The method of implementing the Community College Service (KKN) program in the form of training and assistance carried out for 2 weeks in December 2018, had previously gone through a series of preparations to support the implementation of the KKN work program, with the main material: (a) IVA test examination training; (b) BSE training (Breast Self-Check); (c) giving medical devices for examination; (d) education materials for cadres and women in the form of pocket books and health examinations provided through community home visits and social services; (e) Referral for women suspected of abnormalities at the time of examination.

Researcher invited the Puskesmas workers and Posyandu cadres at the Amansari village. Then the cadres suggested the women who felt sick/ has abnormalities at reproduction organ such as abnormal menstruation period, pelvic pain, fluor albus, or post coital bleeding to join the program. Although it was permitted for other women to participate this program.

Number of respondents was 60 people who attended education program, of those 28 respondents registered for the test but only 20 respondents conducted IVA test examination due to fear of the prosedures. Respondents were given questions pretest before and after education program to measure the respondent's knowledge. Activities carried out at the Amansari village elementary school. The data obtained were analyzed by SPSS version 25 using the Shapiro Wilk normality test, then followed by the Wilcoxon test to see the differences before and after education program.

3. Result

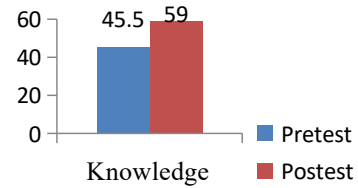
Community service activities that have been carried out and the results achieved will be described as follows:

3.1 Preparation

The initial stages of community service are: (a) making a pocket book module on IVA test and BSE;

Table 1. Respondent structure.

Number	Activity	Number of participant
1	Community educational	60
2	IVA screening	20
3	Health care Training IVA	12

**Figure 1.** Knowledge level pre and post test.**Figure 2.** (a) Counseling activities at social services. (b) IVA test.

(b) socialization to Amansari village stakeholders regarding education program and social services; (c) procurement of medical devices and equipment. After this preparation, researchers are permitted to do the program, even the village stakeholders are support the program. At this stage the lecturer prepares a student residence, makes modules and prints them, and meets intensively with Amansari village officials to ensure the event can be carried out well.

3.2 Implementation

Students carry out counseling to residents' homes for 2 weeks, by giving pretest and posttest during education program, the implementation of social services is held for 1 day, women who want to do the examination are carried out by cadres, midwives and Yarsi Medical Faculty students. Before IVA examination is given anamnesa, examination of new breasts to the examination table. The midwife who conducts the examination has been given training about the examination and perform the examination under supervision and direction from

the doctor. The number of respondent structure based on the KKN program is shown in Table 1.

Figure 1 shows the change in the level of knowledge after extension. This can be seen with an increase in the percentage of correct answers on the questionnaire after education program was carried out. The average results obtained from the Pre-test audience is 45.50 and Post-test 59.00, increased by 13.5%. This is supported by a significant p value ($p = 0.000$), which indicates that there is a relationship between providing education program and increasing participants' knowledge.

Figure 2 show the activity of educational program, IVA and BSE examinations and health checks conducted by students. The IVA test found 2 people suspected of abnormalities in the cervical area, and 2 people found a lump in the breast of 20 women who did the examination (from total 28 registered respondents) then made a referral to the puskesmas for action.

4. Discussion

Cancer has a devastating impact on individual patient

and family. For the individual patient the impact such as financial difficulties, social interaction problem, depression, and anxiety.^{13,14} For the family, the impact including physical demand, emotional strain, changing roles in the household.¹⁵ A Community Collage Service is one of the efforts to assist the healthcare staff and community in rural location to detect breast and cervical cancer.

In this study, the level of knowledge increase after the education program by 13.5%. This is in line with the previous community service study.¹⁶ The sufficient knowledge of the respondents could help them in self detecting the symptoms of cancer and may also help other community member to raise awareness about cancer.

5. Conclusion

The conclusion of this KKN program is the increasing community knowledge about cervical and breast cancer, and the importance of routine reproductive health checks in the absen of clinical symptoms. IVA test and SADARI training and mentoring help health workers and students about early detection and KKN students are required to be able to live in a community and understand the reality of society by using the knowledge, attitudes and skills. Hopefully the programs that have been implemented during KKN can improve programs that have not been able to be realized properly in the hope of reducing the number of sickness and improving the quality of life of the Amansari village community.

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Conflict of interests

The researcher has received institutional grant support through University YARSI. Another author reports no potential conflicts.

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