

Community Service in an Effort to Increase Parental Knowledge and Awareness in Efforts to Prevent Cervical Cancer with HPV Immunization in 2025

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ABSTRACT

(1) Background: Cancer is one of the number two deadly diseases in the world after coronary heart. Although it is deadly, the initial symptoms of this disease are never felt by the sufferer, so the patient only comes for treatment when the disease has entered an advanced stage. (2) Purpose of the Study: to increase parental knowledge and awareness about cervical cancer and cervical cancer prevention efforts with HPV immunization (3) Methods: direct observation to measure parents' knowledge and perception of cervical cancer and its prevention efforts with HPV vaccination. The final stage of the activity was a re-evaluation of parents' knowledge and perception of cervical cancer and efforts to prevent it by HPV vaccination using a post test questionnaire (5) Conclusions: increasing knowledge so that awareness arises from parents in efforts to prevent cervical cancer in girls. This activity is expected to increase the number of HPV immunization targets in accordance with the target set by the government.

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1. INTRODUCTION

Cancer is one of the number two deadly diseases in the world after coronary heart. Although it is deadly, the initial symptoms of this disease are never felt by the sufferer, so the patient only comes for treatment when the disease has entered an advanced stage. The prevalence of cancer incidence in the world is still ranked highest after cardiovascular disease and is the leading cause of death. The global cancer observatory (GLOBOCAN) revealed that the number of cancer deaths in the world in 2018 was around 18.1 million with a death rate of 9.6 million. Previously, in 2008 the number of illnesses due to cancer was 12.7 million with a death rate of 7.6 million.

Indonesia itself is still quite high, based on Basic Health Research (Riskesdas) conducted in 2013 stating that the incidence of tumors and cancer in Indonesia itself reaches 1.4 per 1000 population (around 330,000 people) (Riskesdas, 2013). Meanwhile, in 2018 the number of cancer patients increased to 1.8 per 1000 population. The highest prevalence of cancer patients in Yogyakarta in 2018 was around 4.9 per 1000 population (Riskesdas 2018).

One of the most deadly types of cancer that affects women is cervical cancer. Cervical cancer is the second cancer in the world that most women suffer from after breast cancer, especially in developing countries such as Indonesia. IARC (International Agency For Research On Cancer) in 2012 stated the prevalence of breast cancer as 40 per 100,000 women and cervical/cervical cancer as 26 per 100,000 women. The increasing number of new cases of cervical cancer in Indonesia every year can be a big threat to the health world, because the majority of sufferers are newly detected and come to the advanced stage. In fact, cervical cancer can be prevented and detected early if women of childbearing age have good knowledge and awareness to carry out early detection.

According to the observation of World Cancer (GLOBOCAN) in Indonesia, there were 36,633 new cases and 21,003 deaths due to cervical cancer in 2020. This figure shows that there are 50 cases detected every day with more than two deaths every hour. (IARC, 2020).

The cause of cervical cancer is known to be the HPV virus (human papilloma virus) sub-type oncogenic, especially sub-types 16 and 18. Other risk factors include smoking, a weakened immune system, a history of sexually transmitted infections, a family history of cervical cancer, and initiating sexual intercourse at a very young age. The incidence of cervical cancer will greatly affect the lives of the sufferer and his family and will also greatly affect the financing sector by the government. Therefore, increasing efforts to handle cervical cancer, especially in the field of prevention and early detection, is needed (Ministry of Health, 2017).

Cervical cancer is the only type of cancer whose cause can be ascertained and can be prevented as early as possible, namely by administering the HPV vaccine. The HPV vaccination recommendations are also in line with the WHO's global strategy to eliminate cervical cancer, by covering up to 90 percent HPV vaccination, 70 percent screening coverage, and 90 percent access to related treatments. As a priority, HPV vaccination should be given to all girls aged 9-14 years, before they become sexually active (WHO, 2023).

As many as 90% of girls in Indonesia are targeted to receive HPV immunization by 2030. This target is contained in the National Action Plan for the Elimination of Cervical Cancer in Indonesia (2023-2030). The National Action Plan for Cervical Cancer Elimination is a comprehensive strategy to strengthen the national health system in Indonesia, expand access to more advanced prevention and treatment technologies, and remove barriers to cervical cancer intervention rooted in social, financial, cultural, social and structural challenges. To achieve this target, HPV vaccination is now included in the School Child Immunization Month (BIAS) activity which targets elementary school age children or equivalent and is intended to improve the smoothness, effectiveness and efficiency of the implementation of basic vaccination. The policy of the Ministry of Health of the Republic of Indonesia that HPV vaccine recipients aged 10 to 13 years are given twice at intervals of 6 to 12 months to reduce the risk of cervical cancer and other diseases caused by HPV.

The new HPV vaccination program is included in the ranks of mandatory vaccinations in Indonesia that will take effect nationally in 2023. The Banten Provincial Health Office in 2023 has made efforts to provide HPV vaccination to girls in grades 5 and 6 of elementary school as a form of cervical cancer prevention and in order to make a cervical cancer-free Indonesia by 2030 with a target HPV immunization target of 108 thousand children (Banten Provincial Health Office, 2023). Continuous education is needed for the wider community, especially the elderly and the younger generation, that the HPV vaccine is a health investment as the main protection measure against various diseases in the future caused by the HPV virus. In addition, vaccination is a child's right and it is an obligation for parents to immunize their children.

HPV vaccination is a mandatory vaccination that has only been implemented nationally starting in 2023, and based on a preliminary study conducted at the Taktakan Health Center at the BIAS (School

Children's Immunization Month) activity in August 2023, the achievement of HPV immunization is only 86.2% of the target of 90% so it is still below the target set by the government. In addition, interviews were also conducted with several parents who have girls in grades 5 and 6 at SD Drangong 1, who were reluctant to allow their children to be immunized for fear reasons.

The health problems found by the author make efforts to prevent cervical cancer in women unable to run properly, while in accordance with the recommendations of the Child Immunization Task Force and the Adult Immunization Task Force, HPV vaccination can provide benefits and protection from the age of 9 years to 55 years. This is where the role of health workers is important to conduct health education related to cervical cancer and the benefits of HPV immunization for women's reproductive health so that it can reduce the risk of cervical cancer caused by HPV.

Based on the results of the situation analysis, the solution to solving the existing problem is to make efforts to increase knowledge so that awareness arises from parents in efforts to prevent cervical cancer in girls. This activity is expected to increase the number of HPV immunization targets in accordance with the targets set by the government.

2. METHODS

In the early stages of the activity, a request for permission was made to the head of the Taktakan Health Center and the Principal and the Elementary School Committee in the working area of the Taktakan Health Center, Serang City regarding the planning of educational activities with health webinar activities about cervical cancer and its prevention efforts with HPV immunization. The activity continued with direct observation to measure parents' knowledge and perception of cervical cancer and efforts to prevent it with HPV vaccination, namely by filling out a questionnaire during the pre-test. The data obtained was then carried out community service efforts by providing education about cervical cancer and efforts to prevent it with HPV vaccination. The final stage of the activity was a re-evaluation of parents' knowledge and perception of cervical cancer and its prevention efforts with HPV vaccination using a post test questionnaire to determine the increase in knowledge and changes in parents' perceptions and perceptions of cervical cancer and its prevention efforts with HPV vaccination. This community service activity is important to increase parental knowledge, understanding and awareness about cervical cancer and the importance of cervical cancer prevention efforts with HPV vaccination.

The intervention efforts carried out in this community service activity are:

1. Submission of proposals with the Head of the UPTD Taktakan Health Center for a time contract for community service activities.
2. Determine speakers to fill in Health webinar activities
3. Animation video making as an educational medium;
4. Carrying out health webinar activities with the target of parents of female students in grades 4, 5 and 6 at elementary schools in the working area of the Taktakan health center (24 schools);
5. Formative evaluation of community service participants.
6. Supervision and reporting of program implementation.
7. Monitoring the achievement of the HPV immunization target at the UPTD Taktakan Health Center to find out the level of success after community service activities are carried out.
8. Development of CSR programs to improve the health and welfare of residents in the Serang environment.

The target of this community service is the parents of female students in grades 4, 5 and 6 (School Committee) at the Elementary School in the Taktakan Health Center work area.

This community service activity plan will involve several other agencies to support the implementation and achievement of community service goals. Agencies that will be involved in this activity include:

1. The Group 2 team of S3 Public Health students of Semarang State University, acted as facilitators of community empowerment activities.
2. The Health Service Agency from the UPTD Taktakakan Health Center.

Evaluation Procedures and Tools

1. To find out whether the program to be implemented has a positive impact or the extent to which this program is implemented, of course an evaluation is made which includes:
2. A pre-test was carried out on parents' knowledge and perception of cervical cancer and its prevention efforts with HPV vaccination, which was carried out to find out the extent of the level of knowledge and perception before the health webinar intervention
3. A post test was carried out regarding parents' knowledge and perception of cervical cancer and its prevention efforts with HPV vaccination, which was carried out to find out the extent of the level of knowledge and perception after the health webinar intervention.

This service activity will be carried out using the following stages:

1. Communicating with the Head of the UPTD Taktakan Health Center
2. Communicating with school principals and elementary school committees in the Taktakan sub-district area
3. Preparing speakers in Health webinar activities
4. Making educational media in the form of posters and animated videos for Puskesmas
5. Coordinate with schools and school committees for the preparation and implementation of Health webinar activities
6. Carry out pre tests and post tests in the form of questionnaires as a form of evaluation
7. The Puskesmas and Schools make RTL (Follow-up Plan)

Facilities and Infrastructure

1. Writing utensils (whiteboard, paper, markers, ballpoint pens) if available
2. Posters and Animated Videos
3. PC or Laptop
4. Zoom Pro

Data Analysis Techniques and Program Success Criteria

Evaluating the success of the activity and as a benchmark for the achievement of goals by analyzing test results data both pre test and post test about parents' knowledge and perception of cervical cancer and efforts to prevent it with HPV vaccination, this is done to determine the extent of knowledge and perception before and after the intervention.

The indicators of achieving goals and benchmarks for the success of activities are as follows:

1. There is an increase in knowledge by looking at the difference between pre test and post test results;
2. There is a change in perception by looking at the difference between pre test and post test results;
3. Puskesmas and Schools make RTL at the end of the activity;
4. Fill out a questionnaire on satisfaction with the implementation of health webinar activities.
5. There has been an increase in HPV vaccination coverage in the work area of the Taktakan Health Center UPTD

3. FINDINGS AND DISCUSSION

This research was conducted at an elementary school in the working area of UPTD Taktakan Health Center located on Jl. Takari No.Km.5, Taktakan, Taktakan District, Serang City, Banten 42162 which is also one of the local government-owned health centers located in the center of Serang City that can serve general patients and BPJS.

Tabel 1 Time, Place of Implementation and Participants

Activities	Day/date	Hours	Quantity Participants	Location
Cervical Cancer Eradication Speech Degree with HPV Immunization	Monday, 22 September 2025	07.30 WIB	146	Daring via zoom meeting

100% of the target in this activity is the Person in Charge of UKS and representatives of parents of female students in grades 4, 5 and 6 (School Committee) at the Elementary School in the Taktakan Health Center work area (24 Elementary Schools) present in community service activities, which amounted to 146 people.

Tabel 2 *Difference in Average Knowledge and Perception Scores using Wilcoxon*

Variabel	Pretest	Posttest	<i>p-value</i>
	Mean	Mean	
Knowledge	0,15	0,18	0,000
Perception	0,76	0,89	0,000

The activity involving 146 people broadly showed that there was a difference in the average level of knowledge and perception of parents in efforts to prevent cervical cancer with HPV immunization. Table 4.2 shows the difference in the average level of knowledge at the time of the pretest from an average of 0.15 after the pretest was carried out and the average increase to 0.18. Likewise, the average level of perception at the time of the pretest was 0.76 and after the posttest the average increased to 0.89.

The community service participants were very enthusiastic about the material provided. Based on the results of the post test, parental knowledge and perception of cervical cancer and prevention efforts with HPV vaccination have increased, it shows that the speech gala activity has been carried out properly and correctly so that it can increase parents' knowledge and perception of cervical cancer and HPV vaccination prevention efforts.

Discussion

Community service activities carried out by the academic community of Faletahan University are beneficial for the community, especially parents of students in the Taktakan Health Center work area. This activity received full support from the Taktakan Health Center. PKM activities are carried out in the form of health education. The educational method is one of the efforts that has been proven to be able to increase one's knowledge (Nurbaya, Saeni, & Irwan, 2022). The education provided by the PKM team has a real impact on increasing knowledge after health education is carried out. The results of the evaluation of the activity showed a difference in the average level of knowledge at the time of the pretest from an average of 0.15 after the pretest was carried out and the average increased to 0.18. Likewise, the average level of perception at the time of the pretest was 0.76 and after the posttest the average increased to 0.89.

This shows that the counseling provided can increase the understanding of community service participants. The participants had a better understanding of cervical cancer and HPV vaccination prevention efforts, what and how the vaccination is, how to get it, when to give it, and others. In accordance with the material that has been delivered by the speakers. This is in line with the results obtained from several services carried out with the same theme regarding cervical cancer education.

Where the counseling delivered by the speakers was able to increase the knowledge of participants compared to before the counseling was carried out.

Counseling conducted with the participants of 50 members of the Women's Dharma Association of the Department of Religion of Jambi Province showed that there was an increase in post-test results getting a greater number of correct numbers than pre-tests (Herlambang et al., 2019). The counseling also succeeded in increasing the knowledge and explanation of women in Buluran Kenali village, Jambi about cervical cancer and the importance of early detection. As many as 25 out of 35 people (71.43%) of service participants were willing to undergo a pap smear examination after providing counseling materials (Julaecha & Nurfitriani, 2019).

Various efforts to control cervical cancer need to be made. Research conducted by (Wahidin & Febrianti, 2021) shows that in the Central Jakarta area, efforts have been made to succeed the HPV vaccination program as an effort to prevent cervical cancer starting from the elementary school level which begins with planning, organizing, implementing, monitoring and evaluating through the collection of vaccine target data, meetings with vaccination program managers, UKS teachers and socialization at the village level. schools, parents and PKK. Good knowledge will affect a person's behavior if the knowledge gained is used properly. One of the efforts that can be made to prevent cervical cancer is to provide a good understanding for the public and increase awareness of the importance of early detection of cervical cancer. Early detection of cervical cancer with Acetic Acid Visual Inspection (IVA) is one of the main programs carried out by the government with a program target of 50% in women of childbearing age aged 30-50 years and achieved within 5 years (Hasni, Masda, & Evie, 2022). Various activities to increase public awareness of the importance of early detection of cervical cancer include socialization, advocacy, training of health center cadres, regular screening, training of health workers in districts/cities, recording, reporting and monitoring of evaluation activities (Kursani & Rahmawati, 2017).

4. CONCLUSION

The conclusions that can be drawn from the results of the service activities are the increase in parents' knowledge and perception of cervical cancer and efforts to prevent HPV vaccination. The result of this community service is that there is a difference in the average level of knowledge at the time of the pretest from an average of 0.15 after the speech degree is carried out, the average increase to 0.18. Likewise, the average level of perception at the time of the pretest was 0.76 and after the posttest the average increased to 0.89. This average increase shows that almost all of the material presented by the resource persons is well understood by the service participants. The participants were satisfied with the implementation of the service, did not get any obstacles in activities. Participants also felt great benefits from the implementation of this service

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