
The Role of Adolescent Health Cadres on Cervical Cancer Prevention for Women of Reproductive Age

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ABSTRACT

Poverty and low education of women is a determinant that causes women to be powerless to avoid risk factors and to prevent cervical cancer. Basically many health promotion and education efforts on cervical cancer have been carried out by implementing various health promotion strategies and methods. The purpose of this study is to analyze the influence of the role of adolescent health cadres on cervical cancer prevention behavior in women of reproductive age. Type of this research was quasy experiment with pre and post test control group design. The population was female adolescents, 11th and 12th grade students of MAN Bangkalan (high school) and their mothers, 40 samples in the observation group and 40 in the control group. The sampling technique used was simple random sampling. The independent variables was the role of adolescent health cadres, and the dependent variables were cognition, self-efficacy, commitment, prevention. Data were collected using questionnaire, then analyzed using Mann-Whitney Test and Wilcoxon test. The test results showed that the role of adolescent health cadres influenced the behaviour of prevention and early detection of cervical cancer in women of reproductive age, meaning that the development of the role of adolescent health cadres as health information providers can create a condusive atmosphere for changes in health behaviour in their families.

Keywords: cervical cancer; the role of adolescents; prevention

INTRODUCTION

The issues of cervical cancer and women mortality due to cervical cancer are still crucial concerns for most countries in the world. Cervical cancer has been serious problem for women because it occurs to almost all people of different social and cultural status and in most cases, causes death. High determinant of cervical cancer in Indonesia is highly complex because first, clinically infection of Human papiloma virus (HPV) is malignant and malnutrition, poverty and social cultural condition forming unhealthy behaviour make it worst.⁽¹⁾ Another factor related to poverty and social cultural aspects is low level of formal education of women and it makes them unable to avoid risk factor and to conduct preventive efforts as well as early detection of cervical cancers.⁽²⁾

Health promotion efforts to disseminate information on cervical cancer have been conducted either directly or indirectly by using poster, advertisement, commercials and other types of mass media promotion. Early detection of cervical cancer cases (screening) have also been conducted through social activities in which women are facilitated and encouraged to take part in screening in the form of free VIA examination and Pap Smear.

There is a great need for innovative development efforts to prevent the occurrence of the disease. Development efforts should facilitate knowledge and attitude transformation to encourage women to be able to recognize risk factors, early symptoms and preventive measure of cervical cancers. In this study, the developmental strategies aim at empowering women by maximizing resources of family. It is conducted by involving the female adolescent taking an active part in health organization at school to function as peer counsellor in Centre of information for Adolescent Health. The proactive intervention is in the form of health education by involving the adolescent to be promoter of family health or to be health cadre for their own family. Information on early transformation on cervical cancer are given to the adolescents and it is expected that they will be able to encourage similar transformation for their mothers.

Adolescents' empowerment as family health cadre will be able to minimize conflict between the adolescents and their families and creates situation to build more positive mutual relationship. Adolescents take their past relation with others into account such as their relation and intimacy with their mother. Self-identity development process at adolescents' period is very crucial due to confusion and desperation faced by the adolescents; however positive identity will be achieved once the confusion and problems during the period can be solved.⁽³⁾ The development of Adolescent Health Cadre for health improvement to prevent and detect early cervical cancer of productive age women is based on one of the strategies of health promotion which is Empowerment. It is a process of giving information to individual, families or groups continuously and a process of transforming individuals from those who don't know into those who know healthy behaviour, from those who are not willing into those who are

willing to conduct healthy behaviour.⁽⁴⁾ The key is on the success of making Adolescent understand that cervical cancer problems are those that might occur to them, their mother and others surrounding them.

The aim of this study is to analyse the influence of role of Adolescent Health Cadres on cervical cancer prevention and early detection behaviour of women of productive age.

METHODS

Based on its purpose, this was quasi experiment by using pre and post test control group design in which there were two groups that were selected randomly and pre and post-test were assigned to them to find out the difference between observation and control group.⁽⁵⁾ The population of this study was female adolescent, 11 and 12 grade students of MAN (high school) at Bangkalan with their mothers of 30-55 years old. Sampling technique used was simple random sampling consisting of 40 people in observation group and 40 in control group. The variables of study were independent variable which is the role of adolescent health cadres and the dependent ones are (1) cognition, (2) self-efficacy, (3) commitment, (4) prevention.

The data gathered was primary data obtained directly from first-hand source by using questionnaire. Difference analysis of pre and post test result of observation and control group was conducted using *Mann-Whitney Test* and *Wilcoxon* test was used to analyse the influence of independent variable on dependent variable. This study was conducted from July 2018 up to September 2018.

RESULTS

Table 1. The result of pre-test for role, cognition, self-efficacy, commitment and prevention variable

Variable	Category	Observation Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
Role	Tolerated	7	15.5	10	25.0
	Not tolerated	33	92.5	30	75.0
Cognition	Good	0	0	3	7.5
	Fair	9	22.5	10	25.0
	Bad	31	77.5	27	67.7
Self-efficacy	Good	0	0	3	7.5
	Fair	7	17.5	13	25.0
	Bad	33	82.5	27	67.7
Commitment	Good	0	0	3	7.5
	Fair	6	15.0	8	20.0
	Bad	34	85.0	29	72.5
Prevention	Positive	6	15.0	9	22.5
	Negative	34	85.0	31	77.5

Table 2. The result of post-test for role, cognition, self-efficacy, commitment and prevention variables

Variables	Category	Observation group		Control group	
		Frequency	Percentage	Frequency	Percentage
Role	Tolerated	32	80.0	14	35.0
	Not tolerated	8	20.0	26	65.0
Cognition	Good	32	80.0	10	25.0
	Fair	4	10.0	8	20.0
	Bad	4	10.0	22	55.0
Self-efficacy	Good	32	80.0	6	15.0
	Fair	5	12.5	11	27.5
	Bad	3	7.5	23	57.5
Commitment	Good	33	82.5	8	20.0
	Fair	4	10.0	7	17.5
	Bad	3	7.5	25	62.5
Prevention	Positive	30	75.5	13	32.5
	Negative	10	25.5	27	67.5

Tabel 3. The result of normality test

Variabel	Pre test		Post test	
	Sig	Conclusion	Sig	Conclusion
Role	2.479	Not normal	2.208	Not normal
Cognitive	2.907	Not normal	1.815	Not normal
Self-efficacy	2.334	Not normal	2.062	Not normal
Commitment	2.855	Not normal	2.411	Not normal
Prevention	3.866	Not normal	2.543	Not normal

Table 4. the result of non parametric test

Variables	Group	Mean		SD		Difference of Mean Score	Mann-Whitney Test
		Pre Test	Post Test	Pre Test	Post Test		
Role	Observation	16.45	28.63	1.99	4.56	12.18	0.000
	Control	17.43	17.65	2.68	3.00		
Cognition	Observation	15.90	88.80	27.93	15.64	72.90	0.000
	Control	58.73	62.10	9.64	11.93		
Self-efficacy	Observation	53.45	74.50	7.96	8.52	21.05	0.000
	Control	57.38	59.50	6.91	9.01		
Commitment	Observation	52.88	75.93	6.96	8.14	23.05	0.000
	Control	58.30	61.60	6.86	10.22		
Prevention	Observation	4.33	7.05	1.26	1.82	2.78	0.000
	Control	4.60	5.08	1.73	1.90		

DISCUSSION

The Role of Adolescent Health Cadres

Based on data analysis, it is found out that the result of post-test of observation group with tolerated role is higher than those with not tolerated role and the number and percentage improvement of pre-test result is 64%. It is different from control group in which the number of Adolescent Health Cadres with tolerated role is lower than those with not tolerated role and the number and the result of pre-test shows that number and percentage improvement of role in tolerated category is only 10%. Further analysis shows that mean score of observation group is (mean = 28.63) and that of control group is (mean = 17.65). The result shows that there is a significant difference between the role of Adolescent Health in observation group and that of control group. Therefore, we might interpret that treatment given to observation group in the form of health education on cervical cancers is able to give positive influence and it encourages Adolescent Health Cadres to take an active part in delivering information on prevention measure of cervical cancers to others especially their mother.

In this study, role development of Adolescent Health Cadres for health promotion related to prevention and early detection of cervical cancer of productive age women is based on health promotion strategy namely empowerments. Adolescent empowerment as health cadres through proactive intervention in the form of health education on prevention and detection of cervical cancers was conducted by using module as the main media. Modules functions as independent learning resources which are able to attract attention and curiosity of Adolescent on how to prevent cervical cancer and on the next cycle, they might be used to disseminate information on cervical cancer to others. "Modules are instructional materials that might be used by students to learn independently and it requires minimum guidance from others."⁽⁶⁾

Viewed from capital social aspects, Adolescents as the subject of study have good criteria to be health cadres. Their role as member and chair of Centre of Health Information and Counselling for Adolescent have turned them into tenacious person which is in line with the purpose of the Centre of Health Information and Counselling for Adolescent. The centre is media for Program of Family Life Preparation for Adolescent which is managed by, and for Adolescent in order to give information and counselling of reproduction health and to get them prepared for family life. The main purpose is to give information on the program concerning marriage age maturity, life skills, as well as counselling and referral service. Besides that, other activities were also conducted which is in line with adolescents' talent and skill to turn them into strong adolescents resulting in Strong Family to be Happy Family.⁽⁷⁾ Their experience as counsellor at school facilitate them to be effective source of information for their mothers and families in order to prevent the occurrence of cervical cancer.

The Influence of Role on Cognition

The result of analysis shows that the mean difference of observation group is higher than that of control group, and there is a difference on the result of post-test between observation group and control group. From the result of Wilcoxon test, the role of Adolescent Health Cadres in promoting cervical cancer prevention influences mothers' cognition on cervical cancer. From the result of tabulation, we found out that Adolescents of good category are capable of delivering message on cervical cancer prevention to their mothers by telling them that they have followed counselling on cervical cancer, showing the relevant modules and explaining important parts of the modules about which their mothers should know. Another capability that they have is to seek support from their family members to convince their mother to conduct cervical cancer prevention effort and to ask opinion from their fathers on HPV vaccine and VIA / Pap Smear examination. The result of the active role is correlated to cognitive aspect (knowledge) of mothers and the result of post-test shows that most of them (32 mothers) have good cognitive state.

The findings of this study show that Adolescent Health Cadres might be effective source of information to convince their mother that cervical cancer is such crucial issue that they have to know deeply. The indicator of the role success is the ability of Adolescent Health Cadres to let their mother know that they have followed counselling on cervical cancer, shown the modules to them and explained the important information on cervical cancer about which their mother should know and discussed on their mother experience to use contraceptive device. Through this process, harmonious interaction between the Adolescent and their mothers has occurred resulting in learning situation for two generation which is based on their intimacy between them. Parents are no longer primary source of information for their children. Science and technology provide information in such a way that it reduces parent's role in delivering their knowledge. Internet, peers, teachers and social organization have become primary source of information for Adolescent. Parents have experience and Adolescents have latest knowledge and the two might be combined to be inter generation promotion. Knowledge discussion between generations make each of them feel "empowered" because they have worth-sharing information.⁽⁸⁾

The Influence of Role on Self-Efficacy

From the result of analysis, we found out that mean difference of self-efficacy value for observation group is higher than that of control group, and there is a difference on self-efficacy of mothers in observation and control group. Based on the result of *Wilcoxon test*, there is an influence of Adolescent Health Cadres role in promoting cervical cancer prevention on mothers' self-efficacy for prevention and early detection efforts of cervical cancer. Thus, active role of Adolescent Health Cadres in delivering information on cervical cancer gives meaningful effect on mothers' self-efficacy. What is meant by self-efficacy in this study is judgement made by mothers on their ability to do prevention and early detection efforts for cervical cancer. The judgments covers difficulty levels, strength and their belief on their ability to handle potentials problems and hindrance. Several indicators showing self-efficacy change for difficulty level aspects, strength and mothers' belief on their capability are on good category, meaning that most mothers has strong belief to conduct several prevention and early detection efforts for cervical cancer such their belief to ensure that their children do not marry at young age, to use safe contraceptive device as suggested by doctor/midwife, to support their children (Adolescent) to have HPV vaccine and their belief on their capability to search information on IVA/Pap Smear examination.

According to Bandura⁽⁹⁾ self-efficacy develops gradually and continuously in line with the improvement of capability and experiences that they have undergone. One of the crucial factors influencing self-efficacy is Verbal Persuasion by important persons having ability to realize and improve individual's self-efficacy. People are guided by giving them advice, suggestion and guidance so that they are able to improve the belief on their capability to achieve their goals. Individuals who are persuaded verbally tend to work harder to achieve success.

Influence of Role on Commitment

Based on the result of analysis and test, it is found out that there is a difference of mean value of commitment between observation and control group in which the difference of mean value of observation group is higher than control group. The result of Mann-Whitney, there is a difference for post test result of observation and control group. Based on *Wilcoxon test*, there is significant influence of Adolescent Health Cadres role in promoting prevention and early detection efforts of cervical cancer on mothers' commitment to prevent and detect cervical cancer early. The research findings show that the role of Adolescent Health Cadres might improve their mothers' commitment by giving information on the importance of preventing and detecting cervical cancer for them and their mother. In this study, commitment is defined as an attitude showing how strong the willingness of mother to involve themselves in an effort to prevent and detect cervical cancer for

them and their female children. Essentially, commitment is feeling of like or dislike in the form of self-willingness to do whatever it takes to conduct certain measures. Dictionary of English Language (2009) defines that commitment is emotionally- and intellectually-bound state for certain action. It is like magnetic power to pull or tie other things. Thus, commitment is fundamental standard for attitude and willingness to do something. If someone is committed, then he or she will feel comfortable and easy to do their job and thus, success will be achieved. According to Pender⁽¹⁰⁾ commitment is willingness to do certain healthy behaviour including to identify strategy to conduct the behaviour; it might be influenced by situational factor, the benefit of the behaviour, upcoming problem, self-efficacy, and other attitude which is related to relevant activities. The biggest commitment for a specific activity enables the health promoter to be maintained for such a long time.⁽¹¹⁾

The Influence of Role on Prevention

Based on the result of test and analysis, it is found out that there is a difference of mean value of prevention between observation and control group. The difference of mean of observation group is higher than that of control group. The result of Mann-Whitney test, there is a difference of post test result between observation and control group. Based on the result of *Wilcoxon test*, there is an influence of the role of Adolescent Health Cadres on the prevention efforts of cervical cancer of woman of reproductive age (their mothers). It also means that the active role of Adolescent Health Cadres in giving information, seeking support and empowering other family members in promoting cervical cancer prevention gives positive impact on the interest and attitude of their mother toward cervical cancer. It is proven by their willingness to follow IVA examination to detect cervical cancer. From the final tabulation result, we found out that there are 43 woman of reproductive age (mother of Adolescent Health Cadres) who are willing to join IV examination in which 30 of them are the mothers of Adolescent Health Cadres of observation group and the other 13 are from those of control group.

This study proves that health counselling on cervical cancer may not only be conducted by health officer but also family by empowering relevant family members especially those of high credibility to ensure the success. One of the credibility aspects is connection power between mother and their female children which in this study is made to be rationale for developing cognitive transformation, self-efficacy and mothers' commitment to identify the symptoms and signs of cervical cancer risks. It is crucial because essentially all mothers do not want to miss important period of their child development. They will feel proud and happy watching their children group up healthy and normally. The feeling of happiness has begun when the children are able to utter several words, when they learn to walk, when they are adult and even when they get married. All of those experiences give happiness to the parents. Progressive intimacy and emotional bound between mother and their children will improve as the children grow up and develop and they will be of importance to build trust between mother and the children. As stated in their study, that one of the main issues in family prevention program is the development of pro social behaviour. All relevant factors are analysed and they are proven to be the predictor of pro social behaviour.⁽¹²⁾ In addition, the most discriminative behaviours are parents-children relation, family tenacity, and positive upbringing pattern. Family with good tenacity will be able to provide positive context for their children to develop affective and mutual feelings by which empathy will be built and strategies and pro social stages are learnt.⁽¹²⁾

Based on capital social aspect of Adolescent as the subject of this study, it is found out that most of them are close to their mothers. It is shown by cooperation indicators and their trust toward their mothers. Tabulation result shows that 29 subjects of Adolescent Health Cadres on observation group (72%) have high level of cooperation and 22 subjects have high trust aspect (55%). With high trust and cooperation, Adolescent will be able to take active role in delivering information to their mother and asking other family members to support them to convince their mother to understand deeply about cervical cancer. The result confirms the study finding that the result of bivariate analysis using chi square test between information exposure variable and behaviour of cervical cancer prevention by using IV A method shows that statistically there is a meaningful correlation between information on IV A program⁽¹³⁾ and cervical cancer prevention.

CONCLUSION

The result of this study shows that the role development of Adolescent Health Cadres in promoting cervical cancer prevention efforts which are conducted by giving health counselling by using modules are able to give positive influence on cervical cancer prevention behaviour. The result of data analysis show that: (1) there is an influence of Adolescent Health Cadres role on mothers' cognition on cervical cancer (2) there is an influence of Adolescent Health Cadres role on mothers' self-efficacy to prevent and detect cervical cancer, (3) there is an influence of Adolescent Health Cadres role on mothers' commitment to prevent and detect cervical cancer and (4) there is an influence of Adolescent role on cervical cancer prevention of woman of productive age.

Suggestions that might be proposed are as follows. Socialization on health counselling should not be conducted by health officer only but also by empowering the Adolescent. Role development of Adolescent in health promotion activities should be integrated in specific activities catering the need and interest of the Adolescent. For instance, it might be done by maximizing the function of Centre of Information and Counselling for Adolescent.

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