

IMPROVING PREGNANT MOTHERS' INTENTION TOWARD HIV TESTING THROUGH HOME-BASED HIV TEST AND EDUCATION (HOPE) IN JEMBER, INDONESIA

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ABSTRACT

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The HIV testing program's implementation among pregnant mothers is still not going well due to their intention. Their intention is needed because it can affect pregnant mothers' behavior toward HIV testing. New interventions are needed to solve this problem, such as Home-based HIV Test and Education (HOPE). This study aimed to analyze the influence of HOPE to improve HIV testing intention among pregnant mothers. The pre-experimental design used with the one group pretest-posttest approach where the implementation was carried out for one month with the distribution of the pretest carried out at week 2, and posttest carried out at week 4 of the study thirty pregnant mothers in Jember following this study and involved by using a purposive sampling technique. The data were collected by using the intention questionnaire and analyzed with the Wilcoxon test. The results showed that the pretest results were 20 pregnant women who had the intention to carry out HIV tests and increased to 27 pregnant women on posttest measurements. The results indicate a significant influence of HOPE on the intention of HIV testing in pregnant women ($p = 0.033$). The Home-based HIV Test and Education (HOPE) intervention can improve pregnant mothers' intention toward HIV testing. The HOPE intervention can reach all pregnant mothers (and their husbands) to discover HIV testing information. Involving their husbands in HOPE intervention encouraged pregnant mothers' intention of HIV testing because their husbands were decision-makers in their family, and pregnant mothers will take HIV testing.

BACKGROUND

Pregnant mothers are at risk of HIV infection or transmission due to the ignorance of the disease. Most pregnant mothers are infected with HIV through their couple, especially if their couple having unprotected sex with female sex workers (Isni, 2016). One effort to prevent HIV transmission among pregnant mothers is to provide HIV counseling and testing activities under the prevention of mother-to-child transmission (PMTCT) program (Yuriati, Handayani and Rustiana, 2016). In line with Minister of Health Regulation No.51 of 2013 and Minister of Health Regulation No. 21 of 2013, all pregnant and child-birth women screen for HIV testing in antenatal services. According to (Prawirohardjo, 2014), HIV test screening itself is carried out at least four times dur-

ing pregnancy which is divided into three trimesters, including the following: 1) at least 1 time in the first trimester (1-12 weeks gestational age); 2) at least 1 time in the second trimester (13-24 weeks of gestation age); 3) at least 2 times in the third trimester (24 weeks more of gestational age).

In its implementation, HIV counseling and testing are still not following the principles of implementing HIV testing in Ministry of Health Regulation No. 74/2014 about guidelines for implementing HIV counseling and testing. The coverage of HIV testing in pregnant mothers also still not comprehensive. A previous study stated that health providers still do not inform HIV testing results to pregnant mothers, whether positive or negative, after pregnant mothers carrying out an HIV test (Puspitasari and Junadi, 2018). Another study also stated the same

problem that caused pregnant mothers not to know the purpose of HIV testing (Ambararum, 2019).

A previous study conducted in Kenya states that the Home-based HIV Test and Education (HOPE) can solve this problem. HOPE interventions can reach all pregnant mothers through door-to-door education (Krakowiak et al., 2016). HOPE interventions also involve pregnant mothers' couples. Pregnant mothers and their couples will get the same understanding of HIV testing implementation, both the interpretation of HIV test results and interventions due to the results (Sekandi et al., 2011). HOPE intervention can be adapted to the patriarchal culture, such as in Jember, where pregnant mothers' husbands or couples are head of the family and have a dominant role as decision-maker in his family regarding HIV/AIDS. The involvement of pregnant mothers' husbands or couples can influence the intention to carry out HIV testing for pregnant mothers (Legiati, Shaluhiah and Suryoputro, 2012).

METHODS

A pre-experimental method with one group pretest-posttest design approach is used in this study. Based on the preliminary study results, the data were obtained from 616 pregnant women for the period July 2019 to January 2020. In this study, thirty (30) pregnant mothers were involved with a purposive sampling approach based on the inclusion criteria. The respondents' criteria were a pregnant mother who lives in the Patrang District, which is <5 km from the Puskesmas Patrang (Community Health Center) and has never been following HIV testing, either in the first, second, and third trimesters. All respondents were agreed to follow this study by fulfilling informed consent. This study was conducted from January to February 2020.

The implementation of HOPE was carried out for one month where this implementation was carried out to all pregnant women totaling 30 pregnant women who had previously been assigned as the research sample. HOPE implementation consists of 3 stages: the pretest measurement stage, the HOPE implementation stage, and the post-test measurement stage. The first stage was carried out by pretest measurements at one time using an intention questionnaire which aims to determine the extent of the intention level of pregnant women in carrying out HIV tests. The second stage is the implementation of HOPE, which is carried out by HIV counselors and researchers whose activities contain information about the benefits of HIV testing, the flow, and fi-

nancing of HIV testing. The HOPE implementation is carried out for one session, which takes about 60 minutes. The implementation of one session in the implementation of HOPE is based on standards set by the government where antenatal care visits are carried out at least once in the first and second trimesters and a minimum of 2 times for the third trimester. The stages of measuring the pretest and implementing HOPE were carried out simultaneously, precisely at weeks 1-2 of the study. The third stage was carried out by post-test measurements using the same questionnaire as the pretest measurement, the intention questionnaire. The post-test measurement was carried out at 3-4 weeks of the study to determine the impact of the implementation of the Home-based HIV Test and Education (HOPE) on the intention of pregnant women in carrying out HIV tests. In addition to post-test measurements, at this stage, pregnant women and their partners can ask questions about HIV testing if there is something they do not understand.

Data was collected by using an intention questionnaire. Intention questionnaires were used to assess the extent to which pregnant women intend to carry out HIV testing. This questionnaire consists of 1 question item about the willingness to take an HIV test where there are three choice items; pregnant women are willing to take an HIV test, pregnant women do not want to take an HIV test, and pregnant women are hesitant to do so an HIV test. The questionnaire was developed by USAID (2000) and translated into Bahasa and has been tested for validity and reliability by Akbar in 2014 toward 96 pregnant women (Akbar, 2014). Data were analyzed by using Wilcoxon (alpha 0.05) to evaluate changes of intention through HOPE intervention.

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RESULTS

According to the data, the results were shown in table of respondents' characteristics, pregnant mothers' intention on pretest and post-test, and the statistical result of Wilcoxon test.

Table 2 shows that most pregnant mothers intended to take an HIV test (66.7%) on the pretest measurements. The intention of pregnant mothers has increased in post-test measurements (90%). The intention of pregnant mothers to take an HIV test has increased significantly ($p = 0.033$), and the meaning

Table 1. Pregnant Mothers' Characteristics

Variable	f	%
Age (years): Mean = 27.30; Min-max = 19-44		
Number of pregnancy:		
Primipara	8	26.7
Multipara	22	73.3
Formal education:		
Elementary	3	10.0
Junior high	4	13.3
Senior high	20	66.7
Higher	3	10.0
Occupation:		
Housewife	28	93.4
Worker	2	6.6

Table 2. Intention Level of Pregnant Mother Toward HIV Test Before and After HOPE Intervention

Intention	Pretest	Posttest	p
	f (%)	f (%)	
Yes	20 (66.7)	27 (90.0)	0.033
No	8 (26.7)	2 (6.7)	
Hesitate	2 (6.7)	1 (3.3)	

is that there is a Home-based HIV Test and Education (HOPE) that can improve pregnant mothers' intention of taking an HIV test in Patrang District of Jember.

DISCUSSION

The current study aims to determine the effect of the Home-based HIV Test and Education (HOPE) on the intentions or desires of pregnant mothers to take an HIV Test in Jember, Indonesia. The intention is a behavior that is possible to be done by someone, whether directly realized or not realized (Cahyaningrum, 2014). The results showed a significant increase in pregnant mothers' intention to take an HIV test after providing HOPE intervention. The intention of pregnant mothers in carrying out HIV testing has increased from 20 pregnant mothers at the pre-test to 27 pregnant mothers. Current research findings are supported by previous studies that HOPE interventions can significantly increase the level of acceptability of pregnant mothers in carrying out HIV testing by more than 70% (Osoti et al., 2015). In addition, HOPE interventions can reduce the unwillingness and doubt or hesitation of pregnant mothers toward taking an HIV test.

HOPE interventions are HIV education counseling and counseling activities to increase in-

tentions conducted by health workers (Fylkesnes et al., 2013). HOPE is part of health education, which plays an essential role in expanding knowledge (Sari, 2019). The knowledge provided through health education will influence a persons' attitude, although not all knowledge will form a positive attitude. Other factors can influence attitudes, including emotions, personal experiences, and people who are considered important, culture, media, educational institutions, or religious institutions (Suhariyati, Hardiani & Rahmawati, 2016). Health education is also crucial for the HIV/AIDS problem because health education can prevent discrimination and social isolation among PLWHA (Marni et al., 2018).

According to a previous study, Home Based HIV Test and Education is an intervention program to increase the intention of pregnant women to carry out HIV testing for pregnant women and their partners by scheduling door-to-door visits to pregnant women (Krakowiak et al., 2016). In line with another view that HIV testing and counseling activities are a method by providing some information and strengthening a person's confidence to realize, understand, and carry out a behavior that has a positive impact on their health (Azwar, 2013).

HOPE intervention is carried out by providing education to pregnant women about HIV testing for pregnant women which is carried out for 2 weeks

in 1 session which takes about 1 hour per couple or 15-30 minutes if additional counseling is needed (Sharma et al., 2016). HOPE intervention itself is carried out by HIV counselors using leaflet media as a guide in conveying material to pregnant women and pregnant women partners (Krakowiak et al., 2016). HOPE material has been adapted to government programs in the effort to against HIV / AIDS in pregnant women.

HOPE interventions can increase pregnant mothers' intention to carry out HIV testing because these interventions also involve their couples (Krakowiak et al., 2016). The involvement of their couples in the education of HIV testing and counseling will get the same understanding with pregnant mothers regarding the implementation of HIV testing, both the interpretation of HIV testing results and interventions due to the results (Sekandi et al., 2011). The involvement of pregnant mothers' couples has accordance with the community characteristics which are still familiar with the patriarchal culture; husbands or couples as the primary decision-makers in families concerning HIV / AIDS issues; so the involvement of pregnant mothers' couples is very crucial toward improving the intention to carry out HIV testing for pregnant mothers (Legiati, Shaluhiyah and Suryoputro, 2012). HOPE interventions can increase the intentions of pregnant women to carry out HIV testing because of providing information about the benefits of HIV testing, testing procedures, and interpreting HIV test results.

Several indicators are forming pregnant women's intention in carrying out HIV testing, namely attitude, subjective norm, and perceived behavioral control. Attitude is a response to a behavior, like or dislikes an object (Ajzen, 2005). This study shows that the attitude indicator is very good or positive. Pregnant mothers already know the benefits and advantages of carrying out HIV testing, and pregnant women who have negative attitudes are caused by pregnant mothers who still do not understand the benefits of HIV testing (Putri, 2018).

A subjective norm is a person's view of conducting a behavior influenced by people who influence daily life without regard to all considerations (Ajzen, 2005). This study shows that subjective norm indicators have a strong encouragement for the implementation of HIV testing. The involvement of pregnant mothers' couples during Home-based HIV Test and Education (HOPE) can function as a subjective norm. Their involvement can encourage pregnant mothers' intention to carry out HIV testing because the role of their couples is a component of reinforc-

ing factors (Arniti, Wulandari and Wirawan, 2014). A previous study supported that social support from friends or family can influence pregnant mothers' decision-making and support to carry out HIV testing (Saptari, 2013). Social influence can also affect an individuals' disclosure of the problem of HIV / AIDS. This disclosure causes individuals to be free in expressing their problems to the closest person they have trusted (Kurniawan and Sulistyorini, 2019).

Perceived behavioral control is a person's view of the barrier to implementing a behavior (Ajzen, 2005). The results showed that perceived behavioral control has a keen perception of self-control to perform a behavior. Home-based HIV Test and Education (HOPE) intervention provides information on test facilities, costs, and distance to the health facilities that become a barrier in carrying out HIV testing, affecting the perception of pregnant mothers to carry out HIV testing.

The three indicators of intention forming indicate that the attitude indicator is very good or positive, subjective norms have strong encouragement and strong perceived behavioral control so that it can be concluded that pregnant women have good support for their intention to carry out HIV testing. If the intention of pregnant women supports the implementation of HIV testing, it will indirectly affect the behavior of pregnant women in carrying out HIV tests according to the Theory of Plan Behavior (TPB). This is because the intention can be said to be a predictor of a person's behavior in doing something. In contrast, still found pregnant women who have fixed intentions or no changes. This can be due to the fact that there are still pregnant women who feel uneasy (attitude) to take an HIV test and lack of optimal family support (subjective norm), especially couples to take an HIV test. These barriers can affect the intention of pregnant women to do the test.

The three intention-forming indicators indicate that the attitude indicator is very good or positive, subjective norms have strong encouragement and perceived solid behavioral control. It can be concluded that pregnant women have good support for their intention to carry out HIV testing. If pregnant women's intention supports the implementation of HIV testing, it will indirectly affect the behavior of pregnant women in carrying out HIV tests according to the Theory of Plan Behavior (TPB). The intention can be said to be a predictor of a person's behavior in doing something. In contrast, pregnant women are still found who have fixed intentions or no changes. There are still pregnant women who feel uneasy (attitude) to take an HIV test and lack optimal family support (subjec-

tive norm), especially couples to take an HIV test. These barriers can affect the intention of pregnant women to do the test.

In addition, this study only focuses on identifying changes in intentions and does not identify outcomes of intentions, namely HIV test behavior. It is unknown whether the change of intention is in line with the behavior of pregnant mothers to take an HIV test in a health care facility.

Nevertheless, most pregnant mothers and their couples can receive HOPE interventions, as evidenced by an increase in the intention of pregnant mothers to carry HIV tests. Implementation of HIV testing in pregnant women can prevent transmission of HIV vertically and horizontally, especially in remote areas with low HIV test uptake (Krakowiak et al., 2016). In addition, increasing the intentions or desires of pregnant women and their partners can increase the coverage of HIV testing and the achievement of a triple elimination program among pregnant mothers.

CONCLUSION

It can be concluded that there is an influence between Home-Based HIV and Education (HOPE) on the intention of pregnant mothers to carry out HIV testing in Patrang District, Jember, Indonesia. Health providers, especially nurses or midwives, need to increase PMTCT coverage through HOPE interventions to achieve successful triple elimination programs through door-to-door health education activities, which of course also involve couples of pregnant women who are a component of the support system for pregnant women in making decisions to carry out HIV tests. Further studies are needed to identify the influence of HOPE on pregnant mothers' behavior in following the HIV testing program.

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