



Factor Analysis Correlating to The Increase of Voluntary Counseling and Testing (VCT) Visits of Pregnant Women At Papusungan Community Health Center

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Abstract

This research aimed to analyze the factors correlating to the increase of Voluntary Counseling and Testing (VCT) of pregnant women at Papusungan Community Health Center, Bitung City. The research type used was analytic observation research design and cross-sectional approach carried out on 70 pregnant women resided in work area of Papusungan Community Health Center with research instrument was in the form of a questionnaire consisted of 10 knowledge questions, 20 questions on the role of medical staff and 6 questions about the motivation of pregnant women. Data analysis used chi square test with meaning value 95% (0.05). Knowledge: the respondents with less knowledge about VCT were 53.4% (37 out of total 70 respondents), the respondents stated that the medical staff role was good with amount 58,6% (41 out of 70 respondents), and the respondents with good motivation was 62,9% (44 out of total 70 respondents). Then, pregnant women who did VCT were 65.7% and those who did not do VCT was 34.3%. There is significant correlation between knowledge and the medical staff role to increase VCT visits of pregnant women, but there is no significant correlation between their motivation and the increase of VCT visit.

Keywords: Knowledge, The Role of Medical Staff, Motivation, Voluntary Counseling and Testing (VCT) Visit.

Key Messages:

- The findings of this study emphasize the importance of improving knowledge and the role of medical staff in promoting VCT visits among pregnant women.
- Healthcare providers should prioritize education and counseling on VCT to increase awareness and understanding among pregnant women.
- Medical staff should be equipped with the necessary knowledge and skills to provide appropriate counseling and testing services. This study provides valuable information for healthcare providers and policymakers to improve VCT services for pregnant women in the community.

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1. Introduction

The HIV AIDS problem in Indonesia is one of the national health problems which needs comprehensive management (1) (2). HIV transmission to the mother can cause unsafe sexual relationships, usage of injection drugs with change number altogether with HIV people, infected through blood and blood product, usage of not sterile health tools and the tools to incise the skin (3). HIV transmission from mother to child occurs because women suffer from HIV/AIDS and are of childbearing age so there is a risk of transmission of infection that can occur during pregnancy (4).

North Sulawesi Province is included into ten big cases with highest risk of Acquired Immune Deficiency Syndrome (AIDS) in Indonesia and counted until March 2016, number of people infected by AIDS in North Sulawesi reaching 1.141 with AIDS case rate 48.81. Meanwhile for HIV, the infected reaching 2.811 (5). Based on the data from commission of AIDS management (KPA) of North Sulawesi Province until March 2017 in the amount 2.027 people spread in 15 regencies/cities in North Sulawesi. Manado City has become the place with the highest spread and transmission of HIV-AIDS in North Sulawesi. According to the data, there were 518 people suffering from AIDS and 240 people suffered from HIV, followed by Bitung City and Minahasa Regency. In the amount of 58 people suffered from HIVS during perinatal period namely when the womb is in pregnancy age around 28 weeks until the first 7 days after the baby is born.

The target of pregnant women in Bitung City in 2017 was 2.594 pregnant women with VCT inspection results 2.136 pregnant women (82.3%), of 2.136 pregnant women inspected through VCT, 6 pregnant women were positively infected by HIV. The medical staffs trained with VCT at Papusungan Community Health Center were 5 people (16.12%). The target of Papusungan Community Health Center was 160 pregnant women did VCT inspection. From this target, 125 (78.12%) pregnant women did VCT inspection and 35 (21.9%) pregnant women did not do VCT inspection. From the result of VCT inspection, there was 1 pregnant women positively infected by HIV and 1 pregnant women did not do VCT inspection but had been positively infected by AIDS and passed away during postpartum during premature labor. The medical staffs trained with VCT at Papusungan Community Health Center were 5 people (16.12%). There was spike of AIDS cases from year to year which is very meaningful. This requires the attention from all parties, especially the medical staff who gives health service to HIV-AIDS patients. One form of the service is Voluntary Counseling and Testing (VCT) on pregnant women.

The purpose of this research was to analyze the factors correlating to the increase of Voluntary Counseling and Testing (VCT) coverage of pregnant women at Papusungan Community Health Center, Bitung City.

2. Methods

The type of this research was quantitative research with analytic observation research design and cross-sectional approach. The research was conducted on 20th until 25th of July, 2018 with research location was at Papusungan Community Health Center, North Lembeh Sub District, Bitung City. The research population was all pregnant women in the work area of Papusungan Community Health Center in the amount of 70 pregnant women and the research sampling was total samples namely 70 pregnant women.

The independent variables in this research were knowledge, the role of medical staff, and respondents' motivation. Its dependent variable was VCT coverage of pregnant women. Respondents' knowledge is their ability to answer 10 questions in the questionnaire about the definition, transmission, sign and symptoms of HIV/AIDS and the definition and importance of VCT for pregnant women with criteria Good if $x \geq 6$, and less if $x < 6$. The role of medical staff is all actions/behavior of medical staff in implementing VCT on pregnant women at Papusungan Community Health Center measured from good category if the score gained $\geq 50\%$, and less if the score obtained $< 50\%$. Motivation is the encouragement from inside to act and behave on need fulfillment in following VCT with good criteria if the score obtained $\geq 50\%$, and less if the score obtained $< 50\%$. VCT visit of pregnant women is all women in the work area of Papusungan Community Health Center carrying out VCT with category; those who have done VCT, and those who did not do VCT yet.

The instrument used in this research was questionnaire which had been tested for its validity and reliability, cohort register of the mother, and visit report of VCT test of pregnant women. To test the hypothesis, statistic analysis was carried out with chi-square test using SPSS program with significance level 5% ($\alpha = 0,05$).

3. Results

Table 1 showed that the most age group who became the respondents were non risky age namely 20-34 years old in the amount of 42 respondents (60%) and risky age group namely age > 35 years old in the amount of 14 respondents (20%) and age <20 years old in the amount of 14 women (20%). The education level of respondents were Senior High School namely 33 respondents (47.1%), followed by Junior High School namely 31 respondents (44.3%) and college namely 4 respondents (5.7%).

Table 1. Respondents' Characteristics

Characteristic	n	%
Age		
<20 years old	14	20.0
20-35 years old	42	60.0
>35 years old	14	20.0
Education		
Elementary School	4	5.7
Junior High School	31	44.3
Senior High School	33	47.1
College	2	2.9
Total	70	100%

Table 2. The Correlation Between Pregnant Women's Knowledge, The Role of Medical Staff, and Motivation on VCT Coverage of Pregnant Women at Papusungan Community Health Center

Variable	VCT				N	%	P Value
	Yes		No				
	n	%	n	%			
Knowledge							
Good	27	81.8	6	18.2	33	100	0.015
Less	19	51.4	18	48.6	37	100	
The Role of Medical Staff							
Good	25	86.2	4	13.8	29	100	0.005
Less	21	51.2	20	48.8	41	100	
Motivation							
Good	31	70.5	13	29.5	44	100	0.409
Less	15	57.7	11	42.3	26	100	
Total	46	65.7	24	34.3	70	100	

Table 2 show that the majority of respondents had less knowledge about VCT, with 37 individuals falling into this category. Among these respondents, 19 (51.46%) had done VCT and 18 (48.6%) had not. Of the 33 respondents who had good knowledge, 27 (81.8%) had done VCT and 6 (18.2%) had not. The chi-square test resulted in a statistic of 2.2 with a significance level of 5% (p value = 0.015). In terms of the medical staff's role, 41 respondents stated that it was good, with 25 (86.2%) having done VCT and 4 (51.2%) not yet having done VCT. Of the 29 respondents who said that the medical staff's role was less than good, 21 (51.2%) had done VCT and 20 (48.3%) had not. The chi-square test resulted in a statistic of 2x2 with a significance level of 5% (p value = 0.005). Regarding motivation, 44 respondents had good motivation, with 31 (70.5%) having done VCT and 13 (29.2%) not yet having done VCT. Of the 26 respondents with less motivation, 15 (57.7%) had done VCT and 11 (42.3%) had not. The chi-square test resulted in a statistic of 2x2 with a significance level of 5% (p value = 0.409), which indicates that there is no significant correlation between motivation and VCT visits.

4. Discussion

The Correlation Between Respondents' Knowledge and The Increase of VCT Coverage of Pregnant Women at Papusungan Community Health Center

This research found that there are still respondents who do not know about HIV/AIDS and VCT namely 37 people (52%). These data are quite significant considering the promotions about HIV/AIDS especially in Bitung City is quite good. This shows that it requires full attention from the government especially medical staffs in Bitung City. The result of chi square statistics test obtained significance value $p = 0.015$ ($p < 0.05$), therefore it can be concluded that there is significant correlation between respondents' knowledge and VCT coverage of pregnant women at Papusungan Community Health Center, Bitung City.

Respondents' knowledge about HIV/AIDS and VCT is obtained through senses that they use and its truth can be proven (6). Until knowledge owned by respondents will support the response or actions in the management of HIV/AIDS. Respondents' less knowledge about HIV/AIDS and VCT influences their attitude or action in taking decision towards VCT inspection. It can be caused by their ignorance about HIV/AIDS and VCT. Until it complicates the medical staffs in doing VCT and as the consequences VCT coverage is not fulfilled. From the results of this research, there were 37 people with less knowledge, 18 of them did not take VCT and only 19 people who were willing to do VCT. 18 people not doing VCT is a quite significant number for VCT staffs considering VCT target must be achieved every month and around 16 pregnant women.

The study conducted on sex worker woman found that women with low knowledge level about HIV/AIDS and VCT still considers that they have no risk of HIV/AIDS infection from their spouse (7). The research by Titik Nuraeni (2013) stated that there is significant correlation between the mother's knowledge about HIV/AIDS and the attitude on counseling and test of HIV/AIDS at Karangdoro Community Health Center, Semarang (8). Likewise the research by Nurhayati (2016) obtained that there is correlation between knowledge level and the participation of pregnant women in VCT inspection with p value 0.023 and OR 5.455 (9).

The Correlation Between Medical Staffs and The Increase of VCT Coverage on Pregnant Women at Papusungan Community Health Center

The results of this research showed that most respondents (41 people) stated that the medical staffs have less active role (58.6%). This can be understood considering the trained medical staffs is still less. Intersectoral cooperation strongly supports the increase of VCT coverage until rural village. The research by Sakina and Fibrina (2015) confirmed that the cadre active role and cadre socialization significantly increases the knowledge and attitude of pregnant women and increase antenatal coverage care and VCT. The result of Chi square statistics test gained significance value $p = 0.005$ ($p = 0.05$) then it can be concluded that there is correlation between the role of medical staffs and VCT coverage on pregnant women at Papusungan Community Health Center, Bitung City.

Medical staff is an important component in VCT service (10). Therefore, they must have the ability to analyze certain problem and formulating an effective action plan first in VCT service. The lack of information can cause the increase of HIV/AIDS cases (11) (12). This problem needs more serious management from various parties included the medical staffs who need to improve their role and contribution. The results of this research showed that there were 41 respondents who stated that the medical staffs had less role in VCT service. 20 people (48.8%) did not take VCT because the medical staffs played less role. It is important for the medical staffs to become a communicator, motivator, facilitator, and counselor for pregnant women, until they can gain sufficient information about HIV/AIDS and VCT which in the end it will put aside the negative stigma about VCT. The higher the role of medical staffs on VCT then the higher the willingness to do VCT, until VCT coverage on pregnant women can be achieved as plan. The medical staff plays an important role in the mothers' willingness to do a visit for VCT. The support from midwife in this case as counselor and motivator obtained that a good support resulted the proportion to do HIV test is bigger than those with less support from midwife (13). According to Nurhayati (2016), there is correlation between the role of medical staff and the participation of pregnant women in taking VCT inspection with p value 0.000 and OR 6.90 (9). The medical staff in this case is the midwife has influence for the community in utilizing VCT clinic. Especially in the form of supporting information about HIV/AIDS and VCT.

The Correlation Between Motivation and The Increase of VCT Coverage on Pregnant Women at Papusungan Community Health Center

The results of this research showed the calculation result with p value = 0,409 ($> \alpha$ value = 0,05) or H_0 is accepted which means that there is no correlation between the mothers' motivation and VCT coverage on

pregnant women. The data showed that out of 44 respondents whose motivation is good; 13 of them did not/or not yet take VCT. In the contrary, 26 respondents with low motivation; 15 of them have taken VCT. The higher the motivation of pregnant women about VCT, then the higher their willingness to do VCT. In this research, there were 44 people with good motivation but only 31 of them took VCT. But this research showed that there is no correlation between motivation and VCT coverage.

From the interview with some respondents who did not want to take VCT, it was found that their husband did not allow them to take VCT. The low support from husband influences the positive motivation about VCT. The research done by Nurhayati (2016) stated that there is correlation between husband's support and the participation of pregnant women in VCT inspection (9) (14) and there is correlation between family support and the utilization of VCT clinic (15) (16). Ngoma-Hazemba & Ncama(2018) shows that partner support is key to preventing mother-to-child transmission of HIV (17). It implies that when husbands are supportive, pregnant women are more likely to participate in VCT testing, while lack of support from husbands may decrease their participation. Women who receive support from their family are more likely to utilize the VCT clinic compared to those who do not receive support (18). The correlation could be either positive or negative, meaning that the level of family support could either increase or decrease the likelihood of a pregnant woman utilizing the VCT clinic (19). Otherwise, according to the research by Yunida Halim et. al. (2016) statistically argued that there is no correlation between husband's support and the behavior of taking VCT inspection on pregnant women with p value 0.111 (20).

5. Conclusion

There is significant correlation between knowledge and the role of medical staff in increasing VCT visit of pregnant women, however there is no significant correlation between the motivation of pregnant women and the increase of VCT visit.

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