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FACTORS RELATED TO THE UTILIZATION OF VOLUNTARY CLINICAL TESTING (VCT) SERVICES AMONG PREGNANT WOMEN IN BANYUMAS, INDONESIA

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ABSTRACT

Background : Cases of women infected with HIV are increasing, potentially developing HIV/AIDS transmission from mother to baby. This can be prevented by utilizing VCT services. **Purpose**: This study aims to determine factors toward utilization of VCT services to pregnant women at Banyumas.

Methods: The study design used cross-sectional study, population are pregnant women in Banyumas. Total sample of 133 pregnant women. Sampling using cluster random sampling technique. Data analysis was performed using univariate, bivariate with chi-square, and multivariate using logistic regression.

Results: The results showed there are family size, attitude, clinical assessment that affect utilization of VCT services. The influence of the number of family size affect utilization of VCT services ($p = 0.032$). influence attitudes towards the utilization of VCT services ($p = 0.004$). Clinical assessment also showed that effect utilization of VCT services ($p = 0.031$).

Conclusion : Characteristic variable is the number of family size, and clinical assessment related to the utilization of VCT services. Attitude is variable most to contribute to the utilization of VCT services.

Keywords: HIV-AIDS, VCT utilization, pregnant women

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INTRODUCTION

HIV-AIDS cases in Banyumas Regency experienced an increase in 2012 there were 166 cases to 215 cases in 2013. Cumulative cases HIV most while until September 2015 as many as 732 cases¹. The proportion of HIV cases mostly prostitutes women, gays and injecting drug users. HIV cases 30 percent comes from the housewife with ages between 30 and 40 years, the result of transmission maybe from a husband who have risk behavior. The researchers find that pregnant women with HIV / AIDS in Banyumas came from 10 districts, that are endemic cases of HIV / AIDS. Location are endemic consist of Wangon, Jatilawang, Lumbir, Baturraden, Kawalo, North Purwokerto, South Purwokerto, West Purwokerto and East Purwokerto².

Transmission of HIV from mother to child is the main cause of HIV infection in children aged under 15 years. Since HIV pandemic in the world, an estimated 5.1 million children in the world are infected with HIV. Most of these were infected by transmission from mother to child. Every year, more than 800,000 infants become infected with HIV through mother to child.² According to data from the Ministry of Health, every year there are 9,000 HIV positive pregnant women who gave birth in Indonesia. The risk of HIV transmission from mother to child is 25%-45% if no precautions.³

Transmission of Human Immunodeficiency Virus (HIV) from mother to child is the main cause of HIV infection in children under 15 years. Most of these sufferers are infected through transmission from mother to child. Every year it is estimated that more than 800,000 babies become infected with HIV due to mother-to-child transmission. The risk of HIV transmission from mother to child is 25% -45% if there are no preventive measures.⁶ Measures to prevent the risk of infants getting HIV can be reduced to 2% through a special VCT program for pregnant women, namely Prevention Mother to Child HIV Transmission (PMTCT)⁴.

Differences from previous studies, this study focuses on the use of VCT in pregnant women that has never existed. Most research on the use of VCT has been carried out in high-risk groups such as sex workers and gays. Results of previous studies on the behavior of prevention of HIV transmission from mother to child, behavior of pregnant women for HIV testing in villages Bandarharjo and Tanjung Mas Semarang, showing the most

dominant factor that influence the behavior of pregnant women for HIV testing is the support of her husband.⁵ Other studies shown association between maternal knowledge about HIV / AIDS and VCT with counseling and testing attitudes toward HIV / AIDS voluntary in Puskesmas Karangdoro Semarang.⁶ Research on the prevention of HIV transmission from mother to baby at the health center New Jumpandang Makassar showed no correlation between knowledge, attitudes, the role of husband and caregivers with the efforts of pregnant women in the prevention of HIV transmission to infants.⁷ Research on the factors that influence the behavior VCT examinations in pregnant women in Puskesmas II Malaya Jembrana regency of Bali Province showed no relationship between education and occupation with VCT checking behavior in pregnant women.⁸ Utilization of HIV / AIDS testing in pregnant women is very low in Banyumas Regency only 7 out of 32,683 pregnant women so that it aims to find out the factors that influence the utilization of HIV / AIDS testing in pregnant women.

METHODS

This study uses a quantitative method with cross sectional study design. This research was conducted in three subdistrict the region of Banyumas district. Wanasari, Sumbang and South Purwokerto community health center were subdistrict in the region of Banyumas. The population in this study were all pregnant women. The sampling technique is cluster random sampling, total 133 people with minimal sample size. The inclusion criteria women who are willing to become respondents and exclusion criteria women who live permanently in the region. Study began to explain informed consent and then conduct interviews with enclosed questionnaire. The dependent variable of this study are age, ethnicity, education, occupation, family income, household expenditure, family size, knowledge, attitudes, family support, community support, individual assessment and clinical assesment, whereas independent variable is the utilization VCT services. Bivariate analysis used chi-square test, whereas the multivariate analysis using logistic regression. Ethical clearance obtained from the medical research ethics commission of the medical school Jenderal Soedirman University with ethics number 2187 / KEPK / V / 2018.

RESULTS

Univariate analysis can be seen from table 1 below

Tabel 1. Univariate Analysis

No	Variable	Category	n	%
1	Utilization of VCT services	Yes	22	16.5 %
		No	111	83.5%
2	Age	Risky	33	24.8%
		Not a risk	100	75.2%
3	Ethnicity	Java	131	98.5%
		Outside Java	2	1.5%
4	Access to Education	No	1	0.8%
		Yes	132	99.2%
5	Occupation	Does not work	30	22.6%
		Work	103	77.4%
6	Income	<= standard wage minimum	71	53.4%
		>standard wage minimum	62	46.6%
7	Family expenditure	Less	52	39.1%
		High	81	60.9%
8	Family size	Small	104	78.2%
		Large	29	21.8%
9	Parity	Less	108	81.2%
		High	22	18.8%
10	Knowledge	Well	68	51.1%
		Lack	65	48.9%
11	Attitude	Well	78	58.6%
		Luck	55	41.4%
12	Family support	Support	107	80.5%
		Not support	26	19.5%

13	Community support	Support	58	43.6%
		Not support	75	56.4%
14	Individual Assessment	Well	97	72.9%
		Lack	36	27.1%
15	Clinical Assessment	Well	113	85%
		Lack	20	15%

Bivariat analysis can be seen from table 2 below

Tabel 2. Bivariat Analysis

No	Independent Variabel	Dependent Variabel	p value	Label
1.	Age	Utilization of VCT Services	0.770	No significant
2.	Etchnicity		0.526	No significant
3.	Access to Education		0.655	No significant
4.	Occupation		0.591	No significant
5.	Income		0.905	No significant
6.	Family expenditure		0.849	No significant
7.	Family size		0.032	Significant
8.	Parity		0.606	No significant
9.	Knowledge		0.560	No significant
10.	Attitude		0.004	Significant
11.	Family support		0.444	No significant
12.	Community support		0.258	No significant
13.	Individual Assesment		0.616	No significant
14.	Clinical Assesment		0,031	Significant

Most respondents did not utilizing VCT services (83.5%), but the majority of respondents (75.25%) including health reproductive age (20-35 years). The number of family small because have family size lees than equal to 4 many as 78.2%. There is affect of family size toward the utilization of VCT services ($p = 0.032$). Utilization of VCT services more widely used by pregnant women who have small family size categories (20.2%) compared with pregnant women who have a category large family size categories (3.4%). Affect attitudes towards the utilization of VCT services ($p = 0.004$). Utilization of VCT services more widely used by pregnant women who have a supportive attitude categories (24.4%) compared to women who have less supportive attitude category (5.5%). Clinical assessment also showed significant effect on the utilization of VCT services ($p = 0.031$). Utilization of VCT services more widely used by pregnant women who have a good clinical assessment (19.5%) compared with pregnant women who have less clinical assesment (0%).

Multivariate analysis can be seen from table 3 below

Tabel 3. Multivariate Analysis

No	Variabel	B	S.E	Wald	Df	Sig.	Exp(B)	95.0% C.I. for Exp (B)	
								Lower	Upper
1	Attitude	1.720	.650	7.004	1	.008	5.582	1.562	19.945
8	Constan	-2.853	.594	23.081	1	.000	.058		

Results of multivariate logistic regression analysis showed that the most influential variable is attitude.

DISCUSSION

This study focuses on the determinant factors that contribute for utilization of VCT services for pregnant women in Banyumas. The results showed that pregnant women in Banyumas did not utilize VCT services at 83.5%, and utilized VCT services at 16.5%. Utilization of VCT services for pregnant women at health centers in Banyumas is free of charge. Epule research shows the actual usage of VCT services in Kenya on married couples low usage, many as 28.1%.⁹ Nguyen showed that most respondents (95.1%) are willing to pay VCT services to an average of US \$ 7.75.¹⁰ Clients are women with middle-income levels and opioid users willing to pay but less.

This shows that although in Banyumas district, VCT services at the health center are not paid but can not encourage the utilization of VCT services better. Most respondents pregnant women who work many as 77.2%, had revenues of 53.4% below the minimum wage district, have high family expenditure category at 60.9%, and has a small family category amounted to 78.2%. The results showed that there is a relationship family size with utilization of VCT services to pregnant women. Results of cross tabulation analysis showed the better category of the family size are increasingly making utilization of VCT services to pregnant women, while job category, category of income, family expenditure categories no related with the utilization of VCT services to pregnant women.

The results showed that factors related to the utilization of VCT services to pregnant women are family size, attitude and clinical assessment. Research Epule Low utilization of VCT service was associated with the fear of examination results, death anxiety, lack of confidentiality, and the fear of stigmatization. Respondents who have higher awareness for utilization VCT service have a tendency greater utilization of VCT.

The results showed influence attitudes towards the utilization of VCT services to pregnant women in Banyumas Indonesia, and 41.4% of pregnant women do not support the utilization of VCT service. Misir study stigma reduction intervention on VCT uptake in developing countries find results reduced of stigma, HIV-related knowledge, and self-efficacy were positively associated with HIV. The results showed that the stigma of being a significant barrier to HIV testing and disclosure. Stigma reduction has a significant correlation with the use of VCT.¹¹

This study explains that it takes effort to change attitude that do not support the utilization of VCT service. This supported by research Zhang that showed women migrant rural areas in central China have little knowledge about HIV / AIDS, do not want to work with people infected with HIV, have never been tested for HIV, have a low awareness about the risks of HIV, and less willing to utilization VCT of services. Greater efforts are needed to increase knowledge of HIV / AIDS and VCT and VCT acceptance among migrant perdesaaan in Central China.¹² It also occurs in Banyumas, where 48.5% pregnant women are lack knowledge about the utilization of VCT services.

Research Thepthien about determinant factor people at risk of HIV to get VCT services in Thailand showed mechanism to inform VCT services in different groups, along with improvements in outreach services to make VCT more convenient for key populations.¹³ Based on these results, the educational use of VCT services to pregnant women in Banyumas should be established specifically. Some of the indicators need to be increase about lack of support pregnant women. Lack attitude utilization of VCT in pregnant women not covered and guaranteed confidentiality, pregnant women visiting VCT clinics whose have bad behavior, VCT services should only be used by pregnant women and people with risky behaviors, examination of VCT in pregnant women conducted by health workers competent in skilled, examination VCT in pregnant women should disseminated through the mass media, examination of VCT in pregnant women, the HIV / AIDS in pregnant women can be prevented early, pregnant women who visited the VCT clinic always has a negative image, VCT examinations for pregnant women is a necessary.

Research Mall how to changes in stigma and access to VCT in South Africa sub urban communities with high HIV prevalence. The results showed educational campaign on HIV awareness-based community can reduce stigma in the community about HIV.¹⁴ Research Schuman showed educational intervention on infected HIV during pregnancy and interruption of transmission of HIV in pregnant women should be promoted more widely.¹⁵

Community communication can be an alternative efforts to increase utilization of VCT services pregnant women in Banyumas.²⁷ This is according to research Teklet sadiki concerning the performance of the public communication as a community-based strategy to improve the utilization of VCT community in rural communities. The results showed uptake of VCT and knowledge was statistically higher in people who have performed well in comparison with poor people.¹⁶ The positive influence peers in pregnant women may be motivated to access VCT. This shown in research Buldeo, that the positive influence of peers is a motivation for those who access VCT.¹⁷

Studied by Birhane Another method that can be done³³ to improve the utilization of VCT services. Positively associated with increased maternal knowledge about HIV transmission from mother to child, there are provision of information about HIV from a health care provider, discuss with your partner about HIV transmission from mother to child and pregnant women must be attend to utilize antenatal care.¹⁸

Conclusion

The results showed that there were three variables that influenced the utilization of VCT services for pregnant women including the number¹⁹ family dependents, attitude and clinical judgment. Attitude variable is the main determinant of the utilization of VCT services for pregnant women.

Recommendation

The Health Service in Banyumas Regency have made efforts to change the attitudes of pregnant women towards HIV / AIDS testing through social marketing, especially promotion. Promotions conducted should use audiovisual media and counseling.

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