

ICASH-A025

THE CORRELATION BETWEEN EDUCATION AND MATERNAL KNOWLEDGE ON HIV TESTING

Tina Endah Pratiwi*, Meirita Herawati, Emaretha Mikaningtyas

*Postgraduate Applied Science Program in Midwifery,
Poltekkes Kemenkes Semarang, Semarang, Indonesia*

*Corresponding Author's e-mail : tnaendah@gmail.com

ABSTRACT

Backgrounds: Pregnant women with HIV will be at risk of transmitting her disease to their babies. HIV testing is an important opening gate of HIV status in pregnant women. The program manager of AIDS Prevention Commission of Bekasi Regency, Ade Buwono, revealed that from 711 HIV-infected, 53% were housewives, found 16 infants were infected with the deadly disease

Aims: In this recent study, correlation between education maternal knowledge about HIV testing was underlined.

Methods: This research was a type of analytic research with cross sectional method. A total of 50 pregnant women from Independent Midwife Clinic "MARNIH HANDAYANI" was selected using accidental sampling approach. The participants were given questionnaire related to measure the knowledge level of respondents to HIV testing.

Results: From the results, it is shown that the level of knowledge of pregnant women about HIV testing is still very low. This study shows knowledge to HIV examination among the respondents is defined by the education level (p value < 0.001), age (p value < 0.001) and the information source (p value < 0.001).

Conclusion: The results shows the importance of the health personnel to provide HIV counseling to every visiting pregnant woman. Health care provider had to educate all pregnant women to test HIV. This is because early HIV / AIDS detection will reduce the risk of Mother-to-Child Transmission.

Keywords: HIV testing, knowledge, pregnant women.

INTRODUCTION

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) is part of the priority of achieving Sustainable Development Goals (SDGs) targets. Pregnant women with HIV will be at risk of transmitting her disease to their babies. HIV testing is an important opening gate of HIV status in pregnant women. Mother-to-Child Transmission (MTCT) is the most significant route of HIV infection in children [1, 2]. Mothers who have higher education will get better information about HIV Prevention from mother to child. So the HIV Examination can be believed to eliminate risk of transmitting HIV from mother to child.

From year to year the number of people suffering for HIV / AIDS in women increases with the increasing number of men who have unprotected sexual intercourse, which can be extended to their partners. Based on data from the Ministry of Health in 2013 the number of HIV-infected women as much as 12,279, increased in 2014 to 13,467 and decreased slightly in 2015 to 12,573 [3].

In pregnant women, HIV is not only a threat to the safety of the mothers but also a threat to the child because the transmission occurs from mother to baby. More than 90% of cases of HIV infected children get

infectious by Mother-To-Child Transmission (MTCT) [1]. Based on data from the Ministry of Health in 2013 the number of children aged ≤ 4 years who were infected with HIV as much as 759, by 2014 at 1,030 and declining in 2015 to 795 [3].

HIV transmission from mother-to-child can be prevented by means of intervention Prevention of HIV Transmission from mother-to-child. In developed countries, a child's risk of acquiring HIV from her mother can be reduced to less than 2% due to the optimal program of mother-to-child HIV transmission (PPIA). Good access to PMTCT, however, in developing countries or poor countries, with minimal access to interventions, the risk of transmission increases to 25% -45% [2].

Central Government through Regulation of the Minister of Health no. 51 of 2013 has set out guidelines on prevention of mother-to-child transmission of HIV, which is a reference for health workers, program managers in health offices, professional groups and stakeholders related to the prevention of mother-to-child transmission of HIV. Transmission of HIV from mother-to-child can occur during pregnancy, during labor and while breastfeeding, and intervention can be done through 4 (four) pillars: a) Prevention of HIV transmission in women of reproductive age; b) Unplanned pregnancy prevention in HIV-positive mothers; c) Prevention of HIV transmission from HIV-positive pregnant women to the conceived infants; and d) Providing psychological, social and care support to HIV-positive mothers and children and their families [4].

Based on data from the Ministry of Health of the Republic of Indonesia in November 2014 the accumulation of HIV cases in Indonesia from April 1987 to November 2014 recorded 150,296 cases and 22,869 detected in 2014. Of the total accumulation, the majority is in the age range 20 - 29 years, and it was 18,352 persons. In West Java, HIV cases in 2014 were found 13,507 [5]. Program Manager of AIDS Prevention Commission of Bekasi Regency reported there were 711 people suffering from the deadly disease 53% status of housewives and there are 16 infants infected. The number of HIV positive pregnant women from year to year increased. However, pregnant women who want to receive antiretroviral drugs declined in 2013. Data shows, until the end of December 2013, of 3,135 HIV-positive pregnant women, only 1,544 want to be given drugs, or about 6% [3].

HIV Transmission from mother-to-child can be prevented by preventing the transmission from mother-to-child. In developed countries, the risk of an HIV-infected child from her mother can be reduced to less than 2% due to the optimal availability of MTCT interventions. But in developing countries or poor countries, with minimal access to the medication, the risk of transmission increases to 25-45% [6]. The advancement of science on HIV infection today suggests that early detection of HIV infection is very beneficial for patients and communities. Thus, it is a challenge for health workers (doctors, midwives, nurses) to improve their knowledge and understanding of early diagnosis of HIV infection [6].

Although various efforts have been put in place over the years, the coverage of MTCT services is still low, at 10% in 2004, then increased to 35% in 2007 and 45% in 2008. Even in 2010, the coverage of MTCT services in Indonesia was only 6%. In order for mother-to-child transmission of HIV to be suppressed, it is necessary to improve service coverage in line with the improvement of the implementation of the MTCT program [6]. One of the efforts to control HIV / AIDS is by early detection to know the status of a person who has been infected with HIV or not through voluntary HIV / AIDS counseling and testing, not forced or required. An uninterrupted dialogue between the counselor and his client with a view to preventing HIV transmission, providing moral support, information, and other support to the people with HIV, their families and the environment [7]. The purpose of this study was to investigate whether there was a correlation between the level of education, age and the source of information obtained by the mother with the mother's level of knowledge about HIV testing

METHODS

This research uses cross-sectional analytic research design. The population in this study was 50 pregnant women who visited Marnih Handayani's independent midwife's clinic for antenatal care in the period of January-March 2016. With inclusion criteria: Pregnant women who have a first pregnancy visit, no HIV testing has been done, a pregnant woman willing to be respondent, get permission from husband and family and the pregnant woman who can read and write. Sampling technique was accidental sampling, which by way of data was collected by providing questions in the form of questionnaires on respondents to measure the knowledge level [8]. The questionnaires had 20 question, with score range was high if score counted more than median 55; and if scores ranged less than median 55, it was categorized low. Data analysis used was bivariate analysis with Chi Square test, to see the significance value of statistical calculation by comparing the value of p alpha (set at 0.05)

RESULTS

Table 1. Source of information and respondents' education level and age to their knowledge to HIV testing

	Knowledge about HIV test				<i>p</i> value	OR (95% CI)
	High		Low			
	N	%	N	%		
Education level						
More Education	12	80	3	20	0.000	19.333 (4.141-90.232)
No Formal or Just Primary Education	6	17.1	29	82.9		
Age						
≥20 y.o	14	60.9	9	39.1	0.002	8.944 (2.314-34.581)
< 20 y.o	4	14.8	23	85.2		
Information Source						
Health personnel and media	11	84.6	2	15.4	0.000	23.571 (4.523- 131.191)
Environment and no reliable source	7	18.9	30	81.1		

Based on the table above, most respondents have a low education, under the age of 20 years and most respondents received information about HIV testing from the surrounding environment or that there is no information obtained at all. Relation of education level with the knowledge level of the pregnant mother about HIV examination was significant, with p value = 0.000 and OR = 19.333. Meaning that mothers with primary education and not at risk of 19.333 have a low level of knowledge compared to mothers educated further. The relationship between age with the knowledge level of the pregnant mother about HIV testing was significant, with p value = 0.002 and OR = 8.94. Meaning that young mothers at risk of 8.944 have a low level of knowledge than older mothers. Moreover, the relationship between the source of information obtained by the mother with the knowledge level of pregnant mother about the examination of HIV was significant, with the p value = 0.000 and OR = 23.571; It means mother with the source of environmental information and no source of information 23.571 have a low knowledge level compared to mothers who received knowledge from health workers.

DISCUSSION

Early diagnosis based on HIV testing is a central component of comprehensive HIV prevention programs. By doing an HIV test on all pregnant women, it can reduce the risk of MTCT to the baby [2, 9, 10]. But many mothers do not know about HIV testing, however, they have a negative stigma to receiving HIV testing. Knowledge is one of the factors that encourage VCT[11] because mothers know the benefits of doing HIV test. This recent study shows the factors that enhance the mother's knowledge about HIV testing, including their education level, age, and source of information.

Education is the process of changing the attitude and behavior of a person or group of people in an effort to mature human beings through the efforts of teaching and training. Where mothers with primary education (primary-junior high) and no school have a low level of knowledge compared to mothers with advanced education. This is because of the higher the mother's education the more extensive /high level of knowledge that the mother has. To increase this knowledge it needs additional information about the purpose of VCT likes to prevent HIV / AIDS transmission especially in the pregnant mother to their child.

This study shows a person's knowledge and attitude are influenced by her background such as age, marital status, education, social environment that covers the environment residence and work environment. Thereby, the knowledge and attitude of a person against HIV / AIDS are also obtained through the learning process. A person's knowledge may change and develop according to ability, experience needs and high low mobility of material Information about the environment.

Sources of information from health workers and media is a good medium for promoting HIV testing. This study shows that mothers who get information from health provider and media have better knowledge about HIV examination than mother who get information from no reliable source. Accordance with other research that housewives who live in HIV/AIDS Caring Village get more information from media, banner, health care provider have a better information and more familiar with HIV testing, and are more likely to have better knowledge. In addition, this village has also used media as a means of HIV / AIDS socialization such as banners that read VCT services in front of their village health post so that people familiar with the term VCT and HIV / AIDS [12].

Age is the unit of time that measures the time of existence of an object or creature, both living and dead. For example, the age of a human being is said to be fifteen years measured from the time he was born until the flying hours / more experience that is owned along with the age. So based on the theory and the results of research, there is a relationship between age with the level of knowledge of pregnant women against HIV testing [13]. Mothers with many sources of information and one health worker and the media at risk of having a high level of knowledge than women who received information only from the environment and do not have the source of information and vice versa. The level of knowledge is influenced by stimuli and sources of information. Behavior and knowledge of a person are influenced by the source of information [14]. Mothers who got information from health provider and media had knowledge about HIV testing higher than who got information from no reliable source.

Most MTCT services have been done comprehensively in maternal and child health services, such as pregnant women screening services that have been done in every Public Health Service. This is in line with the PMTCT program that HIV testing has been integrated within the antenatal care since 2005, and since then the number of pregnant women who have tested for HIV has increased.

CONCLUSION

Based on the results of this study, it can be concluded that there is a relationship between education, age and sources of information with the level of knowledge of mothers about HIV testing at Marnih' s Independent Midwife clinic. Mothers who have low education noted having low knowledge to HIV testing compared to mothers with advanced education. Regarding to the age, the more mature the higher or wider their knowledge. The environment does not necessarily provide true information about HIV, especially in

the absence of information sources leads to the minimum level of knowledge of pregnant women about HIV.

REFERENCES

1. KEMENTERIAN KESEHATAN RI. Rencana Aksi Nasional Pencegahan HIV dari Ibu Ke Anak (PPIA) (The National Action Plan for HIV Prevention from Mother to Child) Indonesia 2013-2017. Jakarta: Kementerian Kesehatan RI; 2013.
2. Kourtis AP, Bulters M. Mother-to-Child Transmission of HIV: Pathogenesis, Mechanisms and Pathways. *Clinics in Perinatology*. 2010;37(4):721-37.
3. DITJEN PP & PL KEMENTERIAN KESEHATAN RI. STATISTIK KASUS HIV/AIDS di INDONESIA (Statistics of hiv aids cases in indonesia). JAKARTA: DITJEN PP & PL KEMENTERIAN KESEHATAN RI; 2016.
4. PERATURAN MENTERI KESEHATAN TENTANG PENCEGAHAN HIV DARI IBU KE ANAK (REGULATION OF THE MINISTER OF HEALTH CONCERNING HIV PREVENTION OF MOTHER TO CHILDREN), 51 (2013).
5. Badan Litbangkes. Laporan Riskesdas 2013 (Report On Basic Health Research). Badan Litbangkes Kementerian Kesehatan Republik Indonesia. 2014.
6. Bina Indonesia Kementerian Kesehatan Direktorat Jenderal. Pedoman nasional pencegahan penularan HIV dari ibu ke bayi- [BUKU] (National guidelines for prevention of mother-to-child transmission of HIV). Kementerian Kesehatan; 2011.
7. Suthar AB, Ford N, Bachanas PJ, Wong VJ, Rajan JS, Saltzman AK, et al. Towards universal voluntary HIV testing and counselling: a systematic review and meta-analysis of community-based approaches. *PLoS Med*. 2013;10(8):e1001496.
8. Notoatmodjo S. Metodologi penelitian kesehatan (Health Research Methodology). Jakarta: rineka cipta; 2010.
9. Bateganya M, Abdulwadud OA, Kiene SM. Home-based HIV voluntary counselling and testing (VCT) for improving uptake of HIV testing. *The Cochrane Library*. 2010.
10. Fonner VA, Denison J, Kennedy CE, O'Reilly K, Sweat M. Voluntary counseling and testing (VCT) for changing HIV-related risk behavior in developing countries. *The Cochrane Library*. 2012.
11. Widyawati MN. The Attitude Of Pregnant Mother Against HIV And AIDS And VCT (Voluntary Counseling & Test) on Mangunharjo Village, Tugu Sub-District Semarang: University of Diponegoro; 2009.
12. Setiyawati N, Shaluhyah Z, Cahyo K. Sikap Ibu Rumah Tangga Terhadap Tes HIV/AIDS di Sleman Yogyakarta (Attitude of Housewives to HIV / AIDS Test in Sleman Yogyakarta). *JURNAL PROMOSI KESEHATAN INDONESIA*. 2016;9(1):56-66.
13. Prasetya AD, Wijayanti AC. Hubungan Pengetahuan Dan Sikap Ibu Rumah Tangga Tentang HIV/AIDS Dan VCT Dengan Keinginan Melakukan Tes VCT Di Wilayah Kecamatan Kartasura (Knowledge and Attitude Relationship of Housewives About HIV / AIDS And VCT With The Desire To Conduct VCT Test In Kartasura District): Universitas Muhammadiyah Surakarta; 2016.
14. Notoatmodjo S. Promosi kesehatan dan perilaku kesehatan (Health Promotion and health behavior). Jakarta: Rineka Cipta; 2012.