

The Relationship between Integrated Antenatal Care (ANC) Service and the Transmission Prevention Examination from Mother to Children in Sleman Public Health Centers in 2018

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Abstract

Objectives: Maternal Mortality Rate (MMR) in Sleman Regency in 2017 amounted to 42.78 per 100.000 live births. It has decreased compared to 2016 which amounted to 56.59 per 100.000 live births. Meanwhile, the Infant Mortality Rate (IMR) was 4.20 per 1.000 live births. It increased compared to 2016 which was 3.11 per 1.000 live births. One of the efforts to reduce maternal and infant mortality is through an integrated antenatal care service program. The purpose of this study is to determine the relationship between integrated Antenatal Care (ANC) services and the Prevention of Mother-to-Child Transmission for Pregnant Women in Sleman Health Center in 2018.

Method: This study is analytic observational with a cross-sectional design. The research subjects were pregnant women in Sleman Health Centers. The research samples were 104 people with a purposive sampling technique. The research tools were questionnaires. The data analysis was done with univariate and bivariate.

Results: The significant value of 0.001 ($p < 0.05$) was obtained, it means that there was a relationship between integrated Antenatal Care (ANC) services and Mother to Child Transmission Prevention (PPIA) checks on Pregnant Women in Sleman Public Health Centers in 2018, the risk prevalence is 25.71 (> 1) and the value of CI is between 3.094 and 213.742 so that it does not exceed the number one, meaning that the variable is a risk factor.

Conclusions: There is a relationship between Antenatal Care (ANC) services integrated with Prevention of Transmission from Mother to Child on Pregnant Women in Sleman Health Centers.

Keywords: ANC service, Prevention of Transmission from Mother to Child examination, Pregnant women.

Introduction

Maternal Mortality Rate (MMR), Neonatal Mortality Rate (NMR), Infant Mortality Rate (IMR) and Underfive Mortality Rate (UMR) are indicators of the public health

status. The current AKI and AKB in Indonesia are still high compared to other ASEAN countries. Based on the Indonesian Demographic and Health Survey (IDHS) in 2012, MMR was estimated to reach 359 maternal deaths per 100.000 live births. According to the 2012 IDHS, there were IMR 32 deaths per 1000 births, NMR 19 per 1000 live births, UMR 44 per 1000 live births.⁽¹⁾

The direct causes of maternal death are factors associated with complications of pregnancy, childbirth and childbirth such as bleeding, preeclampsia/eclampsia, infection, congestion and abortion. Indirect causes of maternal mortality are factors that aggravate the situation of pregnant women such as four too (too young, too old, too often giving birth and too close to birth distance)

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and three late (late recognizing danger signs and making decisions, late reaching health facilities and late in handling emergencies). Other influential factors are pregnant women who suffer from infectious diseases such as malaria, Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS), tuberculosis (TB), syphilis, non-communicable diseases such as hypertension, diabetes mellitus, heart disease and mental disorders experiencing malnutrition.⁽²⁾

Pregnant women who do not take care of pregnancy have a risk of abnormal occurrence 1.6 times higher than women who carry out antenatal care.⁽³⁾ Research of Ariningtyas (2017) state that the implementation of PPIA in maternal and child health services can reduce mortality rates in HIV mothers. The Independent Practice Midwife Service is one of the maternal and child health services in Indonesia.⁽⁴⁾

The proportion of HIV/AIDS transmission from mother to baby during the transmission period of pregnancy of 5-10%, the birth delivery of 10-20% and the breastfeeding of 10-15% needs to be anticipated early. One of the efforts to reduce maternal and infant mortality is through an integrated antenatal care (ANC) service program. Integrated ANC services are quality antenatal services provided to all pregnant women in a comprehensive and integrated manner, including promotive, preventive and curative and rehabilitative efforts.⁽⁵⁾ Clinical review results show that the use of antiretroviral drugs (ARVs) can effectively prevent transmission of HIV from mothers to babies.⁽⁶⁾

Materials and Method

This study is analytic observational with a cross-sectional design. The research subjects were pregnant women in Sleman Health Centers. The research samples were 104 people with a purposive sampling technique. The research tools were questionnaires. The data analysis was done with univariate and bivariate.

Result

The characteristics of the respondents were mostly mothers aged 20-35 years amounted to 89 people (85.6%). Maternal pregnancy is all in the third trimester with 104 people (100.0%), frequency of pregnancy checks > 4 times amounted to 97 (93.3%) and ANC places in health facilities as many as 104 (100.0%) including ANC in Health centers with 58 (55.76%),

ANC in RB of 12 (11.53%), in Midwives for about 24 (23.07%), in the Hospital for about 10 (9.61%).

Status of ANC services for pregnant women with a good category of 90 people (86.5%) and 14 respondents (13.5%) in the bad category. PPIA examination for about 99 respondents (95.2%) of the “did” category and 5 respondents (4.8%) categories of the “did not do”.

There is a relationship between integrated Antenatal Care (ANC) services and Mother to Child Transmission Prevention (PPIA) checks on Pregnant Women in Sleman 2018 Health Center (p=0.001; RP=25.714; CI=3.094-213.742).

Table 1. The Frequency Distribution of Characteristics of Pregnant Women in Sleman Health Center in 2018

Characteristics	F	%
Age		
a. 20-35 years	89	85,6
b. > 35 years	15	14,4
Age of pregnancy		
a. Trimester II	0	0,0
b. Trimester III	104	100,0
Examination frequency > 4x		
a. No	7	6,7
b. Ye	97	93,3
ANC Place		
a. Health facility	104	100,0
b. Non health facility	0	0,0
Total	104	100,0

Source: Primary Data of 2018

Table 2. The Frequency Distribution of Integrated Antenatal Care (ANC) Services and PPIA Examination in Sleman Health Center Areas

Variable	F	%
ANC Service		
a. Not good	14	13,5
b. Good	90	86,5
PPIA examination		
a. No	5	4,8
b. Yes	99	95,2
Total	104	100,0

Source: Primary Data in 2018

Table 3. The Integrated Chi-Square Care (ANC) Chi-Square Test with Prevention of Mother-to-Child Transmission Prevention (PPIA) for Pregnant Women in Sleman Health Center Area in 2018

ANC Service	PPIA Examination						95% CI			
	No		Yes		Total		Sig	PR	Lower	Upper
	f	%	f	%	F	%				
Poor	4	80,0	10	10,1	14	13,5	0,001	25,714	3,094	213,742
Good	1	20,0	89	89,9	99	100,0				
Total	5	100,0	99	100,0	104	100,0				

Source: Primary Data in 2018

Discussion

Integrated Antenatal Care (ANC) Services for Pregnant Women in Sleman Health Centers in 2018:

The results showed that 90 people (86.5%) pregnant women assessed the quality of integrated Antenatal Care (ANC) services in Sleman Public Health Centers were in good categories.

The actual condition of the integrated Antenatal Care (ANC) service for pregnant women in 2018 has been carried out in Sleman Public Health Centers, namely since the issuance of regulations from the Health Office in the form of 2017 Circular No. 444/9332 on Integrated ANC Services (10T) for pregnant women. Sleman Health Center has provided integrated ANC services to all pregnant women in Sleman Health Center area.

The results of the study are in accordance with the research that shows that the implementation of ANC service standards at Bahu health center according to the category shows that the majority of ANC services in shoulder health centers are in accordance with midwifery service standards compared to services that do not meet midwifery service standards. ANC was good (82.6%) from respondents.

Antenatal services are health services by professionals for mothers during pregnancy, which are carried out in accordance with established standards of antenatal care.⁽⁴⁾ Quality of service is very close to its relationship to implementation.

The standardized approach of ANC care at Public Health Centers in Sleman is to produce healthy mothers and infants at the end of pregnancy by 1) preventing and handling intercurrent morbidity, 1) hypertension during pregnancy, anemia, malaria, tetanus, sexually

transmitted diseases and 2) detect mothers who have a high risk of complications during childbirth.⁽⁵⁾

Based on the results of previous research and the theory, it can be concluded that Antenatal Care (ANC) services for pregnant women in Sleman health centers are in a good category. The application of good service standards in the integrated Antenatal Care (ANC) service at the Sleman Public Health Centers is very useful to protect the community because the process of activities carried out has a clear basis and is able to detect early problems and diseases experienced by pregnant women.

Prevention of Mother-to-Child Transmission Prevention (PPIA) for Pregnant Women in Sleman Health Centers in 2018:

The results showed that 99 people (95.2%) of Pregnant Women conducted a Mother to Child Transmission Prevention (PPIA) Examination in Sleman Health Center 2018. The results of this study supported the PPIA activity component in prong 3 namely prevention of HIV transmission from pregnant women with HIV to the baby they contain.

These results are in accordance with the research that shows that the majority of respondents conducted PITC examinations amounting to 71 respondents (98.6%).⁽⁷⁾ Other studies in accordance with this study state that mothers who have readiness in carrying out HIV/AIDS tests are mothers who have secondary and high education that influence respondents' knowledge about HIV/AIDS itself.⁽⁸⁾ The main goal is for babies born to mothers with HIV to be free from HIV, and mothers and babies to stay alive and healthy. PPIA general policy is in line with the national program policies for controlling HIV-AIDS and other STIs, as well as KIA program policies.⁽⁹⁾

Knowledge of someone will be the basis of all actions taken. Meanwhile, pregnant women who are

not willing to take part in PPIA and VCT services are mostly due to the negative stigma that exists in the community. With this stigma, people will be reluctant to carry out checks due to shame and fear if known by others.⁽¹⁰⁾ Based on the results of previous research and the theory, it can be concluded that 99 people (95.2%) Pregnant women carry out Mother-to-Child Prevention of Transmission Examination (PPIA) at Sleman Health Centers in 2018. Mother's willingness to carry out Preventive Examination from Mother to Child (PPIA) on Pregnant Women in Sleman Public Health Center voluntarily is one form of participation and mothers have knowledge about HIV/AIDS prevention and good behavior.

The relationship between the integrated Antenatal Care (ANC) service and the Prevention of Transmission from Mother to Child (PPIA) for Pregnant Women in Sleman Health Center: The results of the study showed a significant value of 0.001 ($p < 0.05$), it can be seen that there is a relationship between integrated Antenatal Care (ANC) services and Mother to Child Transmission Prevention (PPIA) checks on Pregnant Women in Sleman 2018 Health Center, Risk Prevalence 25,714 (> 1) and the value of CI between 3,094 and 213,742 so that it does not exceed the number one, meaning that the variable is a risk factor. In this study, it was also found the upper and lower limits in the lower and upper 95% CI too far, this is because the table in the questionnaire answer where the ANC service is 100% is served in health facilities.

The actual condition of integrated Antenatal Care (ANC) services with Prevention of Mother-to-Child Transmission (PPIA) for Pregnant Women in Public Health Center in Sleman in 2018 has a very close relationship, because through this integrated ANC service, pregnant women are given education through speech/counseling about HIV disease, the causes and ways of prevention, so that pregnant women are encouraged to carry out the Prevention of Transmission Examination from Mother to Child (PPIA).

The study was in accordance with a study conducted in Kenya which stated that there was a relationship between integrated ANC services for HIV prevention. The full integration of HIV care into antenatal clinics can significantly increase overall satisfaction with care for mothers in HIV prevention.⁽¹¹⁾

The results of other studies that are in accordance with this study indicate that there is a significant relationship

of service based on the number of ANC visits ($p = 0.000$) with the participation of pregnant women in HIV testing, where the more number of pregnancy checkup visits, pregnant women tend to take an HIV test Transmission from Mother to Child (PPIA), but also participation in Preventive Examination from Mother to Child (PPIA) is not only influenced by antenatal care services but also other factors such as support by health personnel.⁽¹²⁾

Legiati., Et al (2012) said that the knowledge of pregnant women is influenced by the support or role of health workers. Pregnant women who have good knowledge are more likely to take an HIV test compared to pregnant women who have less knowledge.⁽¹³⁾

PPIA services have goals, objectives and approaches that are much in common with efforts to prevent congenital syphilis, therefore these two efforts are integrated.⁽⁷⁾ The success of efforts to prevent HIV transmission from mother to baby is very dependent on various parties, so it does not only affect the active role of health personnel and services in providing education and information about HIV to mothers and their families, but can be done in various ways.

Efforts to successfully prevent HIV transmission can be done by increasing the role of Midwives and Private Practitioners to implement the PPIA program so that it can reach all regions, especially areas far from health centers. This is done in order to increase the knowledge and understanding of the community, especially pregnant women including the family related information about HIV AIDS and the importance of HIV testing.⁽¹⁴⁾

Based on the results of previous research and theory, it can be concluded that there is a relationship between the integrated Antenatal Care (ANC) service and the Prevention of Transmission from Mother to Child (PPIA) in Pregnant Women in Sleman Health Center. This is in line with the results of the study by Setiyawati & Meilani (2014) which showed that the initiation of health care providers or PITC (Provider Initiated Testing and Counseling) in health centers statistically showed a relationship with the behavior of pregnant women in HIV testing. The initiation of a health care provider to take an HIV test has the opportunity to take an HIV test of 21.6 times greater than that of a pregnant woman who does not receive an initiation from a health care provider.⁽¹⁵⁾

The same thing was stated by other researchers who said that by offering mothers for HIV counseling and

testing at the time the mother did ANC, the participation of mothers for counseling and testing was 1.3 times higher (95% CI = 17.3-22.0) compared to mothers not offered HIV counseling and testing.⁽¹⁶⁾

Conclusion

There is a relationship between the integrated Antenatal Care (ANC) service and the Prevention of Transmission from Mother to Child (PPIA) for Pregnant Women in Sleman Health Center.

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Conflict of Interest: We declare that there is no conflict of interest.

Ethical Approval: The data collected will not be used for at her purposes than this research. This study was discussed by the Ethics Committee of Ahmad Dahlan University, Yogyakarta, Indonesia.

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