



## FACTORS ASSOCIATED WITH MIDWIFE BEHAVIOR IN SELF PROTECTION PRACTICE AGAINST HIV AIDS WHILE HELPING CHILDBIRTH AT REGIONAL GENERAL HOSPITAL DR ABDUL AZIZ CITY OF SINGKAWANG

Emy Yulianti<sup>1</sup>, Utin Siti Candra Sari<sup>2</sup>, Aisjah Fitri<sup>3</sup>

<sup>1</sup> Department of Midwifery Health Polytechnic Kemenkes Pontianak, [yanti@gmail.com](mailto:yanti@gmail.com)  
<sup>2</sup> Departement of Midwifery Health Polytecnic Kemenkes Pontianak, [sultana68@ymail.com](mailto:sultana68@ymail.com)

### Abstract

**Background;** Number of HIV / AIDS Cases in West Kalimantan Province by Year of Reporting up to December 2014 HIV cases 4,574, AIDS 34.2 per 100,000 population and 567 deaths (Ministry of Health RI, 2014). Gender of 61.6% male and 34.4% female. In RSUD Dr Abdul Azis Singkawang City January to February 2016 pregnant women who checked themselves and HIV test positive HIV detected a number of 12 people. In 2015 there are 5 SC cases, 3 spontaneous deliveries, 3 cases with HIV-positive miscarriage. The highest proportion of birth attendants is a 68.6% midwife. Transmission can occur through mucous contact, such as splattered blood or amniotic water into the eyes of a birth attendant. Given that the infection can be transmitted through the blood, vaginal secretions, semen, amniotic fluid, and other body fluids, then any officer working in an environment that may be exposed to such things has a risk of contracting if they ignore infection prevention procedures, including midwives.

**Objective;** know behavior including knowledge, attitudes, behavior in practice of self protection against HIV / AIDs when assisting childbirth at Singkawang City General Hospital.

**Research methods;** using a quantitative method with a cross-sectional design. This research is supported by qualitative methods to support quantitative results. The population of this research is midwife who work at Regional Hospital in Singkawang City which is helping to deliver, considering the duty of midwife in maternity clinic is very high risk of contracting and transmitting infection, especially at the time of delivery aid

**Research result;** there is no relationship of knowledge, attitude with (value  $\rho = 0,590$ ) and and there is a relation of self protection tool (value  $\rho = 0,01$ ) with midwife behavior in self protection practice to hiv aids at the time of helping childbirth, very low relation of knowledge, value  $r = 0.136$ ) and moderate ( $r = 0.767$ ) relationship with Midwife Behavior In Practice of Self Protection against HIV AIDs at the time of Helping Childbirth.

Keywords : Midwife, Self Protection, HIV / AIDs, Delivery

### Introduction

Around the world in 2013 there are 35 million people living with HIV covering 16 million women and 3 million children younger than 15 years. The number of deaths from AIDS is 1.5 million, consisting of 1.3 million adults

and 190,000 children aged less than 15 years (Ministry of Health RI, 2014).

In Indonesia, since 1999 there has been an increase in the number of people living with HIV in groups of high risk people who are infected with HIV, namely commercial sex workers and injecting drug



users in several provinces such as Jakarta, Riau, Bali, West Java and East Java so that the province is classified as concentrated level of epidemic areas. The land of Papua has entered a generalized epidemic. The estimation result of 2009, in Indonesia there are 186.000 people with HIV positive (Kemenkes RI, 2011)

According to Indonesia's Health Profile (2015) Situation of HIV & AIDS Developments in Indonesia New cases of HIV Positive increase in 2014 recorded 32,711 cases, in 2013 as many as 29,037 cases and in 2012 as many as 21,511 cases. While new cases of AIDS tend to decline in 2014 as many as 5449 cases, in 2013 as many as 10163 cases and in 2012 as many as 9,649 cases. The highest percentage of the sexes were males (61.6%) and females (34.4%), and the highest percentage in the 20-29 year age group (32.2%) and 30-39 years of age (29, 1%), this indicates the sexually active sexually active age group and injecting drug. According to the type of work, the cumulative number of AIDS patients from 1987 to 2014 was mostly from housewives group of 6,539 cases (MoH RI, 2014). HIV-infected pregnant women increased from 2012 by 1,329 cases to 3,135 cases in 2013. For infants infected with HIV also increased by 86 cases in 2012 and 106 cases in 2013 (MoH RI, 2014).

According to MoH RI (2014) the number of HIV infections reported from 1987 to September 2014) West Kalimantan ranks number eight from other provinces, with 4,574 cases. While the incidence of AIDS cases until September 2014 West Kalimantan was ranked fifth from another province of 34.2 per 100,000 population.

HIV-related services include efforts to locate HIV patients early by testing and counseling HIV in patients coming to health care facilities, chronic care for

PLHAs and other support by referral systems to other facilities needed by PLHAs. Services need to be done in an integrated, plenary, and sustainable manner. HIV infection is a chronic infection with a variety of opportunistic infections that have social impacts related to stigma and discrimination.

In accordance with Kepmenkes No.900 / Menkes / SK / VII / 2002 on midwife registration and practice, midwives play a role in reproductive health and STI prevention including HIV / AIDS. And coverage of delivery assistance by health personnel increases every year. Year 2014 as much 88.68%, in 2013 as much as 90.99% and in 2012 as much as 88.64%. For West Kalimantan as much as 84.23%. The highest proportion of birth attendants was midwives as much as 68.6% (MoH RI, 2015). Transmission can occur through contact of mucous membranes, such as splashes of blood or amniotic fluid into the eyes of a helper. Likewise damage to the skin due to slashed or scratched, can be the entrance of these viruses. Although the transmission risk from blood splashes to the mucous membrane is lower, it should still be avoided. To anticipate splashes, healthcare workers are encouraged to use personal protective equipment such as eye protection, masks, apron and plastic aprons. This protection is important because extensive exposure to mucous membranes and prolonged skin contact may lead to a higher risk of infection (Tietjen et al, 2004). Birth helpers may be exposed to HIV in their workplace through splashes of blood or body fluids in the eyes, nose of the mouth or through skin surface discontinuities (eg minor cuts or abrasions). Stab wounds caused by contaminated needles, or other sharp tools, either at the time of the procedure or during processing of the apparatus. In



relation to the risk of transmission, WHO has issued an appeal to all health workers to take universal precautions in their duties to protect patients and health workers from HIV / AIDS transmission. Considering the threats faced by death, all health workers working in health services should discipline in accordance with these universal precautions, including midwives (Dep Kes, 2004).

Based on the research results of Yulhendri et al. (2011) in Puskesmas Kabupaten Agam of West Sumatra Province, the performance of officers in immunization service is influenced by the support of supervisor, leadership and reward system. The Indonesian government policy on reproductive health uses strategies, among others, to improve the quality of reproductive health services with attention to client satisfaction. In order for reproductive health services to be responsive to the client's needs, any given service needs to be integrative. Thus, the reproductive health services needed by a client need to accommodate other relevant aspects of reproductive health services, while keeping abreast of applicable service standards such as antenatal, delivery and childbirth services, incorporating elements of STI prevention and treatment management services including HIV / AIDS. Early and effective STI management is considered one of the important components of the STI and HIV prevention and control program (Sedyaningsih & Mamahit, 2012).

By applying universal precautions every health worker is fully protected from infectious diseases that are transmitted through blood or body fluids from both diagnosed and undiagnosed cases (Saifudin et al., 2001). The role of universal precautions in health care units is enormous in preventing transmission of infections from patients to other patients or

from patients to health workers (Oedijani, 2004). Pulungsih et al. (2011) indicates where the health worker obtains the exposure is; in the operating room (46%), maternity room (37%), inpatient room (11%), postpartum room (3%), others (3%). Less understanding of STI transmission including HIV and HBV is reflected in cases due to accidents of sharp puncture and exposure to body fluids. Albion Street Center, an infectious disease control and research institute in Sydney Australia, recorded the most common needle-induced accidents (38%), dentists (18%), dentists (4%), doctors (8%), -other (26%) (Djauzi & Djoerban., 2002).

Based on preliminary study in Singkawang city, West Kalimantan, birth attendant by health provider was 87.08%. In RSUD Abdul Azis Singkawang, pregnant women who tested positive for HIV in January to February 2016, there were 12 cases. In 2015 the type of labor was performed in 5 cases with Sectio Cesaria (SC), 3 cases of spontaneous labor and 3 cases with miscarriage / dying in childbirth. In 2014 there were 1 case with pregnant mother, 3 cases with SC, 3 cases with spontaneous labor and 1 case with miscarriage / death.

According to Green & Kreuter's (1991) theory, the attitude and behavior of midwives who do not apply preventive measures against infectious diseases at the time of childbirth are influenced by three factors: predisposing, enabling and reinforcing. Predisposing factors, among others, relate to beliefs, values, knowledge, attitudes, and perceptions that encourage or inhibit a person's motivation to do. Factors enabling the cost, availability of facilities and health facilities, supervision. While the reinforcing factor in the form of support of others. Based on the above description, the researcher wanted to know more about the factors related to the



behavior of midwife in the practice of self protection against HIV AIDS at the time of giving birth in RSUD dr Abdul Aziz Singkawang City.

### Method and Material

This research is an analytic research, using quantitative method with cross-sectional design, supported by qualitative method to support quantitative result. With a population of midwives working in RSUD dr Abdul Azis, a total population of 16 people. Inclusion criteria; midwives who are assisting labor from the first stage of the active phase to the fourth stage. Midwife with educational background Diploma III. Exclusion criteria; midwives who help direct childbirth during the second stage. Research instruments are questionnaires, checklists and in-depth interviews. Data collection techniques with two methods; quantitative and qualitative. Univariate and bivariate data analysis.

### Results

#### Univariate Analysis

Univariate analysis is used to calculate the frequency distribution and the proportion of characteristics of research variables.

Table.1 Frequency Distribution Based on Midwife Knowledge in Self Protection Practice Against HIV AIDs at Helping Childbirth

No	Knowledge	Amount	
		N	%
1	Good Knowledge	8	50
2	Medium Knowledge	8	50
3	Low Knowledge	0	0
Total		16	100

Based on the above table shows midwife's knowledge is good in the practice of self protection against HIV AIDs at the time of helping childbirth, as many as 8 people (50%).

Table 2 Frequency Distribution based on Midwife Attitudes in Self Protection Practice Against HIV AIDs at Helping Childbirth

No	Attitude	Amount	
		N	%
1	Good Attitude	8	50
2	Medium Attitude	8	50
3	Low Attitude	0	0
Total		16	100

Based on the above table shows midwife's attitude is good in the practice of self protection against HIV AIDs at the time of helping childbirth, as many as 8 people (50%).

Table.3 Frequency Distribution Based on Midwife Behavior In Self Protection Practice Against HIV AIDs at Helping Childbirth

No	Behaviour	Amount	
		N	%
1	Good Behaviour	11	68,8
2	Medium Behaviour	5	31,3
3	Low Behaviour	0	0
Total		16	100

Based on the above table shows midwife's behaviour is good in the practice of self protection against HIV AIDs at the time of helping childbirth, as many as 11 people (68,8%).

Qualitative data through in-depth interviews on midwives who carry out self-protection practices against HIV AIDs at the time of assisting childbirth well and who practice less are reflected in the following citation:

“..... memang bu ade kawan yang suke ngolok kita kalau kite makai APD secara lengkap , tapi saye tetap ajak makai demi keselamatan kite, saye takut kena HIV atau Hepatitis. Tapi banyak jua yang mendukung kita



walaupun kadang kadang die sorang ndak lengkap ..... ” (indeed mom is among our friends who like to mock when using Tools Self Protection in full, but I still invite our friends to use self-protection tool for the safety of us all. I am afraid of contracting HIV or Hepatitis But many also support us although sometimes he does not use self-protection tools complete) (Midwives with good self-protection practices)

“... kadang kadang ada kawan yang ngolok kalau kite pakai APD secara lengkap , ada yang bilang kayak astronot lah, ade juak yang bilang macam pemadam kebakaran, jadi kite terpengaruh. Walaupun kita tau manfaatnya .....” (sometimes there are friends who mock me if I use a complete self-protection tool, some say like astronauts, some say like firefighters, so I am affected. although I know the benefits) (Midwives with moderate self-protection practices).

Based on the above quote, it is concluded that midwives with moderate self-protection practices against HIV AIDs at the time of assisting childbirth and midwife behavior both with self-protection practices against HIV AIDs at the time of assisting delivery stated peers did not support although quantitative results of most respondents stated good midwife behavior.

Table.4 Frequency Distribution by Tool Equipment Midwife In Self Protection Practice Against HIV AIDs at Helping Childbirth

No	Tool Equipment Midwife	Jumlah	
		N	%
1	Complete Tool Equipment Midwife	5	31,3
2	Tool Equipment Midwife is quite complete	7	43,8
3	Tool Equipment Midwife is not complete	4	25
Jumlah		16	100

Based on the above table shows that the frequency of complete midwife equipment in the practice of self-protection against HIV AIDs at the time of helping childbirth, as many as 5 people (31.3%).

This data is supported by qualitative data stating the reasons for not using self-protection tool completely. For the use of masks obtained the following statement:

“.....pemakaian masker membuat saye rase susah nak bernafas, ee.... Dan juak kemungkinan cairan masuk ke mulut kecil sekali. ....yang penting kita bisaantisipasi . ye kalau sampai masuk ke mulut kita cepat-cepat buang dan bilas mulut kita dengan kumur-kumur. (using a mask makes me feel hard to breathe, ee .. and the possibility of fluid into the mouth is very small .... the important thing I can anticipate, if to get into my mouth immediately spit out and rinsing my mouth with gargling) ( midwives with less knowledge )

The head cover is expressed by the respondents as follows:

.....Kalau mau dipakai lebih baik , kalaupun ndak dipakai yak ndak juak ape2. karena kitekan setiap pulang dinas selalu mandi dan cuci rambut .(head cover if I want to wear is better, if not used also no problem because every day I wash my body and hair)

“..... Memang memakai tutup kepala tetap merupakan perlindungan diri yang aman . .... Tapi masih banyak dari kita kita yang belum sadar (Wear Headgear is a safe self-protection. .... But still many of us are not yet aware)

Foot protector (boots shoes)

Nah... kalau sepatu boots iye kami rasekan kurang tepat mun nolong partus, karena kita merase terbatas bergerak, berat lalu , walaupun ade 5 (lima) pasang sepatu boots dirumah saki ttok tapi ndak ade yang makai.( Well ... if I wear boots, I feel less appropriate when helping the birth, because I feel limited moves, heavy,





although there are 5 (five) pairs of boots in this hospital but no one uses)

Informant statement about eye protection, as below

*Sedangkan untuk pelindung mata kalauacamata biasa ndak masalah tapi kalauacamate goggles itu juga ndak nyaman dipakai. Dan sudah dicoba kalau keringatan pandangan jadi kabur eye protection (glasses) usually does not matter but if goggles sunglasses are also not comfortable to wear. And already used, if perspiration so blurred vision).....*

*.....menurut sayaacamate biasa lebih mudah makai nye.( I think glasses are easier to wear.)*

*“.... Pada pertolongan partus alat pelindung diri semua wajib dipakai (In the care of self-protective equipment delivery must be used (midwife with good practice)*

Based on the above interview results can be concluded respondents with less practice to object to the use of some personal protective equipment. Contrary to the results of interviews with midwives whose good practice considers the use of personal protective equipment is a must.

#### Bivariate Analysis

Table 5. Knowledge Relationship with Midwife Behavior in Practice Self-Protection against HIV AIDs at the time of Helping Childbirth

	Behavior				r	ρ	
	Good Behaviour		Moderate Behaviour				
	N	%	N	%			N
Good Knowledge	5	45,5	3	60	8	0,136	0,590*
Medium Knowledge	6	54,5	2	40	8		
Σ	11	100	5	100	16		

\*  $p \leq 0.05$

Based on the result of chi square test using computerized  $p$  value = 0,590 If  $p$  value > 0,05 then  $H_0$  is accepted, meaning there is no correlation knowledge with Midwife Behavior In Self Protection Practice Against HIV AIDs at Helping Childbirth. With the correlation coefficient: the value of  $r = 0.136$  means the knowledge relationship with Midwife Behavior In Practice of Self Protection against HIV AIDs at the time of Helping Labor has a very low relationship.

Table 6. Attitudinal Attitudes with Midwife Behavior In Practice Self-Protection against HIV AIDs at the Time of Helping Childbirth

	Behaviour				r	ρ	
	Good Behaviour		Moderate Behaviour				
	N	%	N	%			N
Good Attitude	5	45,5	3	60	8	0,136	0,590*
Medium Attitude	6	54,5	2	40	8		
Σ	11	100	5	100	16		

\*  $p \leq 0.05$

Based on the result of chi square test using computerized  $p$  value = 0,590 If  $p$  value > 0,05 then  $H_0$  is accepted, it means there is no attitude relationship with Midwife Behavior In Practice Self Protection against HIV AIDs when Helping Childbirth. With the correlation coefficient: the value of  $r = 0.136$  means the attitude relationship with Midwife Behavior In Practice of Self Protection against HIV AIDs at the time of Helping Childbirth has a very low relationship.

Table 7. Relationship of Personal Protective Equipment with Midwife Behavior in Practice Self-Protection against HIV AIDs at the time of Helping Childbirth



	Behaviour				r	p	
	Good Behaviour		Moderate Behaviour				
	N	%	N	%			
Complete Tool Equipment Midwife	5	45,5	0	0	5	0,767	0,01*
Tool Equipment Midwife is quite complete	6	54,5	1	20	7		
Tool Equipment Midwife is not complete	0	0	4	80	4		
Σ	11	100	5	100	16		

\*  $p \leq 0.05$

Based on chi square test result using computerized  $p$  value = 0,01 If  $p$  value > 0,05 then  $H_0$  is rejected, it means there is relation of self protection tool with Midwife Behavior In Self Protection Practice Against HIV AIDs at Helping Childbirth. With the correlation coefficient: the value of  $r = 0.767$  means the attitude relationship with Midwife Behavior In Practice of Self Protection against HIV AIDs when Helping Labor has a moderate relationship.

## Discussion

Based on the results of data processing obtained from research conducted, where researchers discussed about factors related to the behavior of midwives in self-protection practices Against HIV / AIDS When Assisting Childbirth At Abdul Azis Regional General Hospital in Singkawang City in this study with the population 16 respondents. Based on the analysis of the research that has been done, are: Knowledge Relationship with Midwife Behavior in Self Protection Practice Against HIV AIDs at the Time of Helping Childbirth.

The result of the research shows that there is no correlation between knowledge

and behavior of midwife in practice of self protection against hiv aids when assisting labor with  $p$  value = 0,590 and correlation coefficient: value of  $r = 0,136$  means knowledge relation with Midwife Behavior In Self Protection Practice on HIV AIDs at the time of Helping Childbirth have very low relationships.

The results of this study are not in accordance with the theory of Green & Kreuter (1991) explains that the improvement of one's knowledge does not always cause behavior change. But there is a positive relationship between the two variables. Certain knowledge about health is considered important before taking any health action, but the expected health measures may not happen unless someone gets a strong enough signal to motivate someone to act on their knowledge..

Sarwono (2011) states that education is not the only way to change individual behavior. Improving compliance after educational efforts and behavioral change can be improved, if:

- There is consistent support from hospital administrators in the recommended business endeavors
- Supervisors regularly provide feedback and appreciate appropriate behavior (Limpscomb & Rosenstock, 1997 cit Tietjen et al., 2012).

Green & Kreuter (1991) explains that behavioral changes expected in society are based on a correct awareness and understanding of the behaviors adopted. Relationship of Attitudes to Midwife Behavior In Practice of Self Protection against HIV AIDs at the Time of Helping Childbirth

The result of the research shows that there is no attitude relationship with midwife behavior in self-protection practice against hiv aids when assisting labor with  $p$  value = 0,590 and correlation coefficient: value of  $r = 0,136$  means



attitude relationship with Midwife Behavior In Self Protection Practice on HIV AIDs at the time of Helping Childbirth have very low relationships.

The results of this study are not in accordance with the theory of Ajzen and Fishbein (1975) said that the attitude affects behavior through a careful decision making process and reasoned. In this case the responder will exercise self-protection properly when vulnerable to infectious diseases, knowing the incidence of transmission of infectious diseases to health workers due to imperfect self-protection.

Mann in Azwar (2003) states though assuming that attitudes are an evaluative predisposition that determines individuals to act, but real attitudes and actions are often much different. This is because the real acts are not only determined by the attitude alone, but also by various other external factors. Similarly, good responders' attitudes are not always followed by self-protection practices against HIV / AIDs when assisting in childbirth. Relationship of Personal Protective Equipment with Midwife Behavior in Practice of Self Protection against HIV AIDs at the Time of Helping Childbirth

From the results of the study showed that there is a correlation between self-protection tool and midwife behavior in self-protection practice toward hiv aids when assisting labor with  $\rho$  value = 0,01 and correlation coefficient: value of  $r = 0,767$  means attitude relationship with Midwife Behavior In Self Protection Practice on HIV AIDs at the time of Helping Labor have a moderate relationship.

The results of this study are in accordance with DepKes theory (2008) that gloves protect the hands from infectious material and protect patients

from microorganisms in the hands of officers. Masks should be large enough to cover the nose, lower face, jaw and all facial hair. Masks and eye shields should be worn if there is a possibility of a false mark on the face, for example when assisting in labor, sections, or cleaning instruments. The hood is used to protect the head from sprays and splashes of body fluids. Footwear is used to protect from the sharp or heavy object injuries or fluid that happens to drip on the feet. Rubber or leather boots can protect the feet. Infection prevention measures are not separate from other components of care during childbirth and delivery. This action should be applied in all aspects of care to protect mothers, newborns, families, birth attendants, other health workers by avoiding the transmission of diseases caused by bacteria, viruses, fungi. Efforts are also to reduce the risk of being infected with dangerous diseases that hinggga now have not found a cure, such as HBV and HIV / AIDS.

Gershon and Vlavor (1992) in Supangkat (2004) exposure to these pathogens increased the risk of serious infections and the likelihood of death. Health workers working in surgical and maternity settings are exposed to the risk of exposure to higher pathogens than in other parts

## Conclusion

Based on the results and research discussion can be concluded as follows:

1. There is no knowledge relationship with Midwife Behavior in Practice of Self Protection against HIV AIDs at the time of Helping Childbirth. And the knowledge relationship with Midwife Behavior in Practice of Self Protection against HIV AIDs at the time of





Helping Childbirth has a very low relationship.

2. There is no attitude relationship with Midwife Behavior in Practice of Self Protection against HIV AIDs at the time of Helping Childbirth. And attitude relationships with Midwife Behavior In Practice Self-Protection Against HIV AIDs at the time of Helping Childbirth have a very low relationship
3. There is a relationship of self-protection tools with Midwife Behavior in the Practice of Self Protection against HIV AIDs at the time of Helping Childbirth. And the relationship of self-protection tools with Midwife Behavior In Practice of Self Protection against HIV AIDs at the time of Helping Labor has a moderate relationship..

## Reference

- Ajzen, I., & Fishbein, M. 1975, *Belief, Attitude, Intention and Behavior*, Addison-Wesley Publishing Company
- Azwar, S. 2003. *Human Attitude Theory and its Measurement*, Edition II. Yogyakarta
- Depkes.RI . 2008 . *Normal Birthing Handbook Reference Book*, DepKes RI, Jakarta
- Djauzi, S., dan Djoerban, Z. 2002. *Management of HIV / AIDS in Basic Health Care*. Jakarta : University of Indonesia Faculty of Medicine
- Green, L. W., & Kreuter, M. W. 1991. *Health Promotion Planning An Educational and Environmental Approach* . London : Mayfield Publishing Company.
- Kemenkes RI, 2014, *Health Data and Information of West Kalimantan Province*, Publisher Kemenkes RI, Jakarta
- Kemenkes RI. 2011, *National Guidelines; Clinical Management of HIV Infection and Antiretroviral Therapy in Adults*, Publisher Kemenkes RI, Jakarta
- Kemenkes RI, 2015, *Indonesia Health Profile Year 2014*, Publisher Kemenkes RI, Jakarta
- Kemenkes RI, 2014 *Situation and Analysis of HIV AIDS*, Publisher Kemenkes RI, Jakarta
- Oedijani, 2004. *Services for People Living with HIV / AIDS (PLWHA) and Universal Precautions in Dental and Oral Care Units. Journal of Medicinal Medicine Vol. 4, No 5, Page: 41-47.*
- Pulungsih, S, P., Murniati, D., & Soerose, S. 2011. *Universal Precautions at the Hospital on the Safety of Health Personnel. Journal of Medicinal Medicine. Vol. 4, No. 2, Page: 23-30.*
- Saifuddin, B., A., Adriaansz, G., Wiknjosastro, H., & Wasposito, D. 2001. *The National Reference Book of Maternal and Neonatal Health Services*. Jakarta: Yayasan Bina Pustaka
- Sarwono, S. 2011. *Sociology of Health*. Yogyakarta: Gadjah Mada University Press.
- Sedyaningsih, E., & Mamahit. 2012. *Sexually Transmitted Infection Control Strategy in Women with*



*Syndrome Approach (a review).  
Journal of Obstetric Gynecology  
Magazine Indonesia. Vol. 26, No.  
2, Page : 82-91.*

Supangkat.A, 2004, *Infection Prevention  
Guidelines for Healthcare Facilities  
with Limited Resources*, Jakarta;  
Yayasan Bina Pustaka Sarwono  
Prawiroharjo

Tietjen.L. Bossemeyer, B., & McIntos, N.  
2004. *Infection Prevention  
Guidelines for Healthcare Facilities  
with Limited Resources*. Jakarta  
:Yayasan Bina Pustaka

Yulhendri, Kristiani, & Kuncoro, T. 2011.  
*Effective Supervision to Improve  
Performance of Puskesmas Officers  
in Immunization Services in Agam  
Regency, West Sumatera Province.*  
*Journal of Health Services  
Management* Vol. 04, No. 01, Page:  
33-41.