

# Relationship Between Respondent Characteristics With Implementation Of Public Infection Prevention By Midwife In UPTD Puskesmas Mompang District Panyabungan District Mandailing In 2021

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## ABSTRACT

Puerperal infection is an infection - inflammation of all genital organs during the puerperium for any reason provided that the body temperature rises above 38°C without counting the first day and consecutively for 2 days. One of the causes of puerperal infections is manipulation by helpers: too often do internal examinations, the tools used are not pure for pests. The aim of this study was to determine the relationship between the characteristics of the respondents and the implementation of prevention of puerperal infections by private practicing midwives at the Mompang Health Center, Panyabungan District, Mandailing Regency, Tahun 2021. This type of research is descriptive-correlative with a cross-sectional approach. This research was conducted from February to May 2021. Researchers used a total sampling technique. Data analysis used chi - square. Based on the results of the study, the majority of 40 respondents aged between 22-39 years were 23 people (57.5%), D - I Midwifery education were 22 people (55%), work experience 14-26 years were 27 people (67.5 %), and less knowledgeable as many as 24 people (60%). From the results of data analysis on the relationship between age and the implementation of prevention of puerperal infections, it was found that the value of  $p = 0.002$  and  $OR = 11.40$  means that there is a significant relationship. Education with the implementation of puerperal infection prevention obtained  $p = 0.032$  and  $OR = 5.343$  meaning that there was a significant relationship and work experience with the implementation of puerperal infection prevention obtained  $p = 0.063$  and  $OR = 5.923$  meaning that there was no significant relationship. From the results of this study it is hoped that midwives as health workers will further improve their experience, knowledge, quality of service in preventing puerperal infections.

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## 1. Introduction

According to WHO (World Health Organization), worldwide every minute a woman dies due to complications related to her pregnancy, childbirth and puerperium. In other words, 1,400 women die every day or more than 500,000 women die every year due to pregnancy, childbirth and childbirth. (Riswandi, 2015). MMR in Indonesia is still the highest in Asean countries. However, based on official IDHS data, MMR in Indonesia continues to decline. In 2013 the MMR in Indonesia was 307 per 100,000 live births, in 2014 it was 270 per 100.00 live births, in 2015 it was 262 per 100,000 live births, in 2016 it was 255 per 100,000 live births, and in 2017 it became 228 per 100,000 live births. The Millennium Development Goals (MDGs) target for MMR in Indonesia in 2015 must reach 125 per 100,000 live births (Barata, 2018).

Meanwhile in North Sumatra Province, MMR in the last 6 years has shown a downward trend, from 360 per 100,000 live births in 2002 to 345. per 100,000 live births in 2003, 330 per 100,000 in 2004, 320 per 100,000 live births in 2015, in 2006 it became 315 per 100,000 live births and in

2007 it became 275 per 100,000 live births (Dinkes Provsu, 2008). The direct cause of maternal death in Indonesia and other countries in the world is almost the same, namely due to bleeding ( 28 % ), eclampsia ( 24 % ), and infection ( 11 % ). While the indirect causes of maternal death include lack of energy Chronic/CED in pregnancy (37%) and anemia in pregnancy (40%) (Dr. Nugraha, retrieved from [Http// www.wordpress.com//book - pws-kia-chapter 1 - introduction](http://www.wordpress.com//book-pws-kia-chapter-1-introduction)). According to the North Sumatra Provincial Health Office, the main cause of maternal death in North Sumatra has not been a specific survey, but nationally due to complications of childbirth (45%), retained placenta (20%), torn birth canal (19%), prolonged labor (11%), bleeding and eclampsia each (10%), complications during the puerperium (5%), and puerperal fever (4%) (Provsu Health Office, 2008)

The cause of maternal death is a very complex matter which can be classified into obstetric complications, health services, and socioeconomic factors. Factors for obstetric complications include puerperal infection and delivery assistance that does not heed the requirements of asepsis and antisepsis (Manaba, 1998).

The government has actually pursued several programs in an effort to reduce maternal mortality. In 2000, the National Pregnancy Movement or Making Pregnancy Saver (MPS) was proclaimed as part of the Public Health Development Strategy towards Healthy Indonesia 2021. The focus of the reforms is that every birth should be assisted by skilled health workers, any delivery complications that can lead to infection during the postpartum period get optimal service, and every woman of childbearing age has access to prevention of unwanted pregnancies, as well as treatment of abortion complications (Pinem Saroha, 2008)

The puerperium begins after the placenta is born and ends when the uterine organs return to their pre-pregnancy state. The postpartum period lasts for about 6 weeks. While puerperal infection is an infection-inflammation of all genitalia during the puerperium for any reason provided that the body temperature rises above 38°C without counting the first day and consecutively for 2 days (Prawirohardjo Sarwono, 2002)

One of the causes of infection in the puerperium is manipulation of helpers: too often do internal inspections, and the tools used are not clean enough for pests. Therefore it is expected that health workers carry out the principle of implementing infection prevention measures in accordance with established procedures to prevent infection (Saifuddin, 2002).

Infection prevention measures are part of the complete essentials given to mothers and newborns and must be carried out routinely when assisting in labor and birth, when providing basic care during antenatal/postnatal/newborn visits/when managing complications. These measures must be implemented in every aspect of care to protect mothers, newborns, families, birth attendants, and other health workers. Also efforts to reduce the risk of contracting or being infected with microorganisms that cause dangerous diseases (Reference APN, 2007).

The data obtained at the UPTD of the Mompang Health Center, Panyabungan District, Mandailing Regency, namely the number of deliveries in January - November 2020 were 98 people, with 2 patients experiencing postpartum infections. Based on the background above, the authors feel interested in conducting research on the relationship between the characteristics of respondents and the implementation of prevention of puerperal infection by midwives at the UPTD Puskesmas Mompang, Panyabungan District, Mandailin Regency.

## **2. Method**

The research design used in this study is a correlative descriptive research design with a cross sectional approach).

## **3. Results and Discussion**

### **3.1 Characteristics of Respondents**

From the results of the study, the characteristics of the respondents asked in this study were age, education, and work experience. Descriptive data on the age of the respondents obtained that the lowest age was 22 years and the highest age was 56 years while the lowest respondent's education was D - I Midwifery and the highest was D - III Midwifery and the minimum length of work was 1 year and the highest was 26 years.

**Table 1.**

Distribution of Respondent Characteristics at the Mompang Health Center, Panyabungan District, Mandailing Regency in 2021

No	Characteristics of Respondents	Total	
		N	%
1.	<b>Age</b>		
	1. 22 – 39 years	23	57,5
	2. 40 – 56 years	17	42,5
2.	<b>Education</b>		
	1. D-I Midwifery	22	55
	2. D-III Midwifery	18	45
3.	<b>Work experience</b>		
	1. 1 – 13 years	13	32,5
	2. 14 – 26 years	27	67,5

From the table above, it can be seen that of the 40 respondents, most of them were aged between 22-39 years, as many as 23 people (57.5%), and a small portion aged 40-56 years, as many as 17 people (42.5%). Based on the education of the respondents, it can be seen that of the 40 respondents, most of them had D-I Midwifery education as many as 22 people (55%), and a small portion had D-III Midwifery education as many as 18 people (45%). Based on the length of work, it can be seen that of the 40 respondents, the majority had work experience of 14-26 years, as many as 27 people (67.5%), and a small proportion had work experience of 1-13 years, as many as 13 people (32.5%).

**Table 2.**

Relationship between Age and Prevention of Postpartum Infection by Private Practice Midwives at the Mompang Health Center, Panyabungan District, Mandailing Regency in 2021

No	Age	Prevention of Infection		Total	Value P	OR (95% CI)
		Less	Good			
		n %	N %			
1.	22 – 39 tahun	19 82,6	4 17,4	23	100,0	0,002 11,400
2.	40 – 56 tahun	5 29,4	12 70,6	17	100,0	

The results of the analysis of the relationship between age and the implementation of the respondents. Regarding the prevention of puerperal infection, it was found that out of 23 respondents, aged between 22 -39 years, most of them had less implementation of puerperal infection prevention as many as 19 people (82.6%) whereas of the 17 respondents aged between 40-56 years the majority had good implementation of prevention of puerperal infections as many as 12 people (70.6%). The results of the statistical test obtained a value of p = 0.002, so it can be concluded that there is a significant relationship between age and the implementation of prevention of puerperal infections. From the statistical test results, OR = 11.400 was also obtained, meaning that respondents aged between 40-56 years had 11 times better chances of preventing puerperal infections than respondents aged 22-39 years.

**Table 3.**

The Relationship between Education and the Implementation of Prevention of Puerperal Infection by Private Practicing Midwives at the Mompang Health Center, Panyabungan District Mandailing Regency in 2021

No	Education	Prevention of Infection		Total	Value P	OR (95% CI)
		Less	Good			
		N %	N %			
1.	D-I Kebidanan	17 77,3	5 22,7	22	100,0	0,032 5,343
2.	D-III Kebidanan	7 38,9	11 61,1	18	100,0	

17 people (77.3) who had D-I Midwifery education had less implementation of prevention of puerperal infection. While the respondents who had D-III Midwifery education out of 18 respondents there were 11 people (61.1%) who had good implementation of infection prevention. The statistical test results obtained  $p = 0.032$ , so it can be concluded that there is a significant relationship between education and the implementation of prevention of puerperal infection. From the statistical test results, the value of  $OR=5.343$  was also obtained, meaning that respondents who had a D-III Midwifery education had a 5 times better chance of preventing puerperal infections compared to respondents who had a D-I Midwifery education.

**Table 4.**  
Relationship between work experience and the implementation of prevention of puerperal infection by private practicing midwives at the Mompang Health Center, Panyabungan District, Mandailing Regency in 2021

No	Experience work	Prevention of Infectio				Total	Value	OR (95 % CI)	
		Less		Good					P
		n	%	n	%				
1.	1-13 tahun	11	84,6	2	15,4	13	100,0	0.063	5,923
2.	14 - 26 tahun	13	48,1	14	51,9	27	100,0		

From the results of the analysis of the long working relationship with the implementation of prevention of puerperal infections by private practice midwives, it was found that of the 13 respondents who had work experience of 1-13 years, most of them had less implementation of infection prevention as many as 11 people (84.6%), while the respondents who had experience Most of the 14-26 year olds have good implementation of infection prevention as many as 14 people (51.9%)

The results of the statistical test obtained a value of  $p = 0.063$ , which means that there is no significant relationship between work experience and the implementation of prevention of puerperal infections. From the statistical test results, the value of  $OR=5.923$  was also obtained, meaning that respondents who had work experience of 14-26 years had a 5 times better chance of preventing puerperal infections than respondents who had work experience of 1-13 years.

### 3.2 Discussion

#### a. Characteristics of Respondents

It can be seen that of the 40 respondents, the majority of respondents aged 22-39 years were 23 people (57.5%). Age has a role in acquiring knowledge so that with good knowledge it will have an impact on its application in action. The older a person is, the function of his organs decreases, including memory. According to Nursalam, the more mature, the level of maturity and strength of a person will be more mature in thinking and working.

Meanwhile, from the 40 respondents, most of the respondents had D-I Midwifery education, namely 22 people (55%). Through education one can obtain information quickly, the level of education also determines whether or not it is easy for a person to understand the knowledge he has acquired and will affect attitudes in implementing actions. based on the knowledge gained. This is supported by Cherin's theory, the higher a person's education, the easier it is for that person to receive information. Of the 40 respondents, most of the respondents had work experience of 14-26 years, as many as 27 people (67.5%). Experience will produce a different understanding for each individual. According to Wiet Hary in Notoadmodjo (2003) states that the level of education determines whether or not it is easy for a person to absorb and understand the knowledge they acquire in general, the higher a person's education, the better the knowledge that can be applied in actions.

#### b. Implementation of Respondents Regarding Measures for Prevention of Postpartum Infection

Overall the level of implementation of respondents regarding measures for prevention of puerperal infection was less as many as 24 people (60%), because there were still respondents who did not take action according to procedures such as midwives wearing gloves that matched hand size, midwives use gloves properly, then tidy up the folds, the midwife tidy up the glove compartment, after using the delivery bed, table, procedure trolley, the midwife immediately wipes

the surfaces and parts of the equipment with a cloth soaked in 0.5% chlorine and detergent, the midwife placing sharp objects on a sterile tray or DTT or by using a designated safe area, the midwife uses water and soap to remove residual blood and dirt, for equipment that will be high-level disinfected by boiling, the midwife does not dry the equipment first, the midwife boiled per errata for 20 minutes, after the glove was folded earlier was left and with the hand that was wearing gloves the midwife took the other glove by slipping her hand into the crease of the glove, the midwife dried her hand by airing it or drying it with tissue paper or clean and dry personal towels, the midwife disposes of sharp objects in a leak-proof container and seals with adhesive if it is 2/3 full, the midwife carefully does the sewing to avoid accidental stab wounds, the midwife uses a pot with a lid tightly to disinfect equipment by boiling,

This ignorance can be caused because there are still respondents who have D-I Midwifery education as many as 22 people (55%), because low education affects one's understanding of acquiring knowledge and a low level of education can cause a person to lack certain skills needed in his life. This ignorance can also be caused by the fact that there are still many respondents who have work experience of 1-13 years as many as 13 people (32.5%). Experience will produce a different understanding for each individual. According to Notoadmodjo, personal experience can also be used as an effort to gain knowledge that can affect a person's ability to apply the knowledge they have.

### **c. Correlation between Characteristics and Implementation of Prevention of Puerperal Infections**

Based on the data analysis, it was obtained that the value of  $p = 0.002$ , which means that there is a significant relationship between age and the implementation of prevention of puerperal infections. According to Gunarso (1990) that the older a person is, the processes of his mental development improve. From the results of this study it is known that respondents aged 40-56 years have better knowledge when compared to respondents aged 22-39 years. This is in accordance with Nursalam's theory, that the older a person is, the level of maturity and strength will be better in thinking and working. So the author's assumption is that with a mature age, one's knowledge will be better which will affect the implementation of actions in accordance with the knowledge they have.

From the results of data analysis, it is known that the value of  $p=0.032$  indicates that there is a relationship between education and the implementation of prevention of puerperal infections. With higher education, a person will tend to get good information from other people and from other information media. On the other hand, a low level of education will hinder one's development and attitude towards the new values introduced (Koentjaraningrat, 1997, quoted by Nursalam, 2001).

According to Koentjaraningrat quoted by Nursalam (2001) the higher a person's education, the easier it is to receive information, so that the more knowledge one has to apply it in action. Based on the results obtained in this study, there is a concordance between the research results and Koentjaraningrat's opinion which has been described above. Where from the results of the study it was found that respondents with a D - III Midwifery education had better implementation when compared to respondents who had a D - I Midwifery education. Based on existing theory, someone who has higher education and broad insight will more easily receive information, both information obtained from print media, electronic media, or information received from other health workers so that the knowledge they have is quite good. Based on this statement, the authors assume that with higher education, the knowledge possessed will be better and will influence someone in applying it to actions.

The respondent's work experience has no relationship with the implementation of prevention of puerperal infections, where the value of  $p = 0.063$ . According to Notoadmodjo (2002) experience is the best teacher (experience is the best teacher). This proverb can be interpreted that experience is a source of knowledge that will influence someone in applying the knowledge they have. Notoadmodjo's theory (2002) is inconsistent with the results obtained, that work experience has no relationship with the implementation of infection prevention. Work experience will produce a different understanding for each individual. With more and more experience gained during work, skills will also increase, with this knowledge and skills, they will be able to adapt to the job they are carrying (Sofyan, 2006).

#### 4. Conclusion

Based on the characteristics of the respondents consisting of age, education, and work experience, it is known that out of 40 respondents, there were 23 people aged between 22-39 years (57.5%), based on education, most of the respondents had D - I Midwifery education, 22 people (55 %), and most of the respondents had work experience of 14-26 years as many as 27 people (67.5%). Based on the level of implementation of the respondents regarding the implementation of prevention of puerperal infections, it was found that out of 40 respondents, 24 people (60%) had a low level of implementation. Based on the characteristic relationship with implementation, it is known that there is a relationship between age and the implementation of puerperal infection prevention, which can be seen from the value of  $p = 0.002$ , there is a relationship between education and the implementation of puerperal infection prevention, seen from  $p = 0.032$  and there is no relationship between work experience and the implementation of puerperal infection prevention. can be seen from the value of  $p = 0.063$ .

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