The Relationship of Respondent Characteristics With the Implementation of Public Infection Prevention by Private Practice Midwife in the Work Area

Fatimah[1], Maryam Latifah Harahap[2], Elvi Suryani[3]
[1,2,3]Lecturer, Diploma Three Midwifery Program, Darmais Padangsidimpuan School of Health Sciences, Indonesia

Article Info	ABSTRACT
  Corresponding Author: Fatimah Lecturer, Diploma Three Midwifery Program, Darmais Padangsidimpuan School of Health Sciences, Indonesia Email: azfatimah280@gmail.com	The purpose of this study to determine the relationship between the characteristics of respondents with the implementation of postpartum prevention by Private Midwives Practice in the work area. The type of this research is descriptive correlative with cross sectional approach. Researchers used totally sampling technique. Analysis of data used chi-square. Based on the results of the study, 40 respondents were 22 - 39 years old, 23 people (57,5%), D - I midwifery education 22 people (55%), work experience 14 - 26 years old as many as 27 people (67,5 %), and less knowledge as many as 24 people (60%) .The results of data analysis of age relationship with the implementation of postpartum prevention obtained p value = 0.002 and OR = 11.40 means there is a significant relationship. Education with the implementation of postpartum prevention obtained p value = 0.032 and OR = 5.343 means there is a significant relationship and work experience with the implementation of postpartum prevention obtained p value = 0.063 and OR = 5.923 means there is no significant relationship. From the results of this study is expected to midwives as health workers to further improve the experience, knowledge, quality of service in prevention of infeksinifas. *Keywords:* Private Practice Midwife, Prevention of Postpartum Infection.

1. INTRODUCTION

According to the World Health Organization (WHO), every minute a woman dies from complications related to her pregnancy, childbirth and postpartum. In other words, 1,400 women die every day or more than 500,000 women die every year due to pregnancy, childbirth, and postpartum (Riswandi, 2005). The direct causes of maternal death in Indonesia and other countries in the world are almost the same, namely bleeding (28%), eclampsia (24%), and infection (11%). Meanwhile, indirect causes of maternal death include Chronic Energy Deficiency/KEK in pregnancy (37%) and anemia in pregnancy (40%) [5].

According to the Health Office of North Sumatra Province, the main cause of maternal death in North Sumatra has not yet been a special survey, but nationally it is due to childbirth complications (45%), retained placenta (20%), torn birth canal (19%), prolonged labor (11%). , bleeding and eclampsia (10%), complications during the puerperium (5%), and puerperal fever (4%) [5]. The cause of maternal death is a very complex matter that can be classified into factors of obstetric complications, health services, and socio-economics. Obstetric complication factors include puerperal infection during delivery assistance that does not heed the requirements of asepsis and antisepsis [14].

One of the causes of infection during the puerperium is the manipulation of the helper: too many internal inspections are carried out, and the tools used are less clean than 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 [23]. Infection prevention measures are part of the complete essentials given to mothers and newborns and must be carried out routinely when assisting labor and delivery, when providing basic care during antenatal/postnatal visits/newborns/when managing complications. These measures should be applied 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 [10]. The data obtained in the working area of the Labuhan Rasoki Health Center is the number of deliveries in January – November 2021 as many as 98 people, with 2 patients experiencing postpartum infection. Based on the above background, the authors are interested in conducting research on the relationship between respondent characteristics and the implementation of prevention of puerperal infection by private practice midwives in the working area of the Labuhan Rasoki Health Center in 2022. Based on the background of this research, the authors formulate a problem regarding the relationship between respondent characteristics and the implementation of prevention of puerperal infection by private practice midwives in the working area of the Labuhan Rasoki Health Center in 2022. The general objective of this study was to determine the relationship between respondent characteristics and the implementation of prevention of puerperal infection by private practice midwives in the Labuhan Rasoki working area in 2022. The specific objectives of this research are:

a) To find out the characteristics of Private Practice Midwives based on age, education, and work experience
b) To determine the level of implementation of prevention of puerperal infection
c) To find out the relationship between the characteristics of the respondents and the implementation of prevention infection postpartum

Benefits Study, For Midwife as information or input in improve service specifically about prevention infection on time breath. Share Organization, Profession Results study this expected could becomes reference in apply care comprehensive obstetrics and quality in To do prevention infection in the process of helping delivery on finally will lower Number Dead Mother and baby. Share Education, results study this expected capable becomes input or new ideas in apply knowledge service midwifery, in particular about procedure prevention infection. Share Researcher, could made as means for increase knowledge in apply knowledge gained during study

2. METHOD

The research design used in this study is a descriptive correlative research design with a cross sectional approach which aims to determine the relationship between respondent characteristics and the implementation of puerperal infection prevention by private practice midwives in the working area of the Labuhan Rasoki Health Center in 2022.

2.1. Population and Sample

1) Population
   The population in this study were all private practice midwives in the working area of the Labuhan Rasoki Health Center in 2022, namely 40 people.
2) Sample
   The sample in this study used the total population in which all the population was sampled as many as 40 people. The sample criteria in this study are:
   1. Private Practice Midwives who are willing to be sampled in the study.
   2. Private practice midwives who provide delivery assistance.

2.2. Research Location

This research was conducted in the working area of the Batu Enam Health Center Pematangsiantar Health Center because there were 2 people who suffered from puerperal infections in 2009 and no research related to this research has been conducted in the working area of the Labuhan Rasoki Health Center. Research Time this research was conducted from January 2021 to February 2022.

2.3. Research Ethics

In conducting this research, the researcher obtained permission from the Director and Chairman of LPPM Akbid Darmais , by applying for a research permit to the head of the Batu Six Health Center Pematangsiantar. Furthermore, the researcher explained the aims and objectives of the research to the prospective respondents that the participation of the respondents being studied was voluntary and the respondent had the right to withdraw from the study. If they are willing to become a respondent, the respondent is asked to sign the research informed consent form or the respondent can express his/her consent verbally. In maintaining confidentiality, the statement sheet for the observations to be filled does not include the name of the respondent and the information obtained is only used for research.

2.4. Research Instruments

The research instrument used in this study was a checklist sheet to be filled out by the researcher by observing when the respondent gave birth assistance by seeing whether the actions taken by the respondent were in accordance with the preventive measures for puerperal infection. The first part of the observation sheet contains demographic data of respondents which includes age, education, and work experience. The second part is an observation sheet which contains a number of statements used to identify the implementation of infection prevention

by private practice midwives. This research checklist sheet consists of 30 statements. Each statement item has 2 alternative assessments, namely if the action is carried out it gets a value of 1 and if the action is not carried out it gets a value of 0. To measure the implementation of puerperal infection prevention carried out by private practice midwives, firstly the score obtained by the respondent is calculated:

1. The maximum score is 30, which means that from the results of the respondents' observations, they get value 1 x 30 = 30
2. minimum score is 0, which means from the results observation respondent get score 0 x 30 = 0

Determination score long with use Hidayat 's formula [7]-[8] as following :

Range   =   value max – minimum value
Class length =   Range Number of classes
         = $\frac{30 - 0}{2}$
         = 15

From the above formula, the range of categories for the implementation of prevention of puerperal infection by private practice midwives is as follows:

1. Less get a score of 0-15
2. OK get a score of 16 – 30

2.5. Procedure Data Collection

Procedure data collection carried out with submit letter request from the Director and Chairman of LPPM STIKes Darmais, and submit application permission implementation study to Father Head Labuhan Rasoki then researcher will find para Midwife Practice Private and explain destination from study that . Researcher will explain that researcher will observing on time midwife To do action help childbirth . Researcher will observing Midwife Practice Private on time help labor is midwife has To do action prevention infection in accordance with standard operational procedure . Researcher also follow help Midwife Practice Private on time To do help childbirth.

2.6. Data Analysis

In To do data analysis , data that has been collected processed with destination convert data to information . Data processing is carried out with steps :

1) Editing, Editing is check return the truth of the data obtained or collected on saar data collection or after the data is collected.
2) Coding, Coding is activity change form data letter into data in the form of number.
3) Processing, After the data is coded, the data from the checklist sheet is entered into a computer program, namely SPSS.

Perform data analysis technique. The data analysis techniques used are;

a. Univariate Analysis, the data obtained from the results of data collection are presented in the form of distribution tables and frequencies.
b. Bivariate Analysis
   Data analysis was carried out in a bivariate manner, namely connecting the characteristics of the respondents with the implementation of prevention of puerperal infection, this data analysis was carried out by statistical tests, namely chi-quare .

3. RESULTS AND DISCUSSION
3.1. Results
3.1.1. Characteristics Respondent

From result research , characteristics respondent asked on study this that is age, education, and experience work.Data descriptive age respondent obtained age Lowest is 22 years old and age highest is 56 years old whereas education lowest respondent is STIKes Darmais and the least amount of time working is 1 year and the highest is 26 years old.

Table 1. Distribution Characteristics Respondents in Work Area
Labuhan Rasoki Health Center 2022

No	Characteristics of Respondents	Amount	
		N	%
1.	**Age**		
	1. 22 – 39 years old	23	57.5
	2. 40 – 56 years old	17	42.5
2.	**Education**		
	1. IN Obstetrics	22	55
	2. D-III Midwifery	18	45
3.	**Work experience**		
	1. 1 – 13 years	13	32.5
	2. 14 – 26 years old	27	67.5

From the table above, it can be seen that of the 40 respondents mostly aged between 22-39 years as many as 23 people (57.5%), and a small proportion 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 part 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, most of them had work experience of 14-26 years as many as 27 people (67.5%), and a small portion had work experience of 1-13 years as many as 13 people (32.5%).

3.1.2. Implementation of Prevention of Postpartum Infection

Table 2. Distribution of Results Level of Prevention of Puerperal Infection By Private Practice Midwives in the Work Area

N0	Statement	Action			
		Conducted		Are not done	
		N	%	N	%
1.	The midwife removes all jewelry on her fingers and hands when she is about to wash her hands	33	82.5	7	17.5
2.	The midwife wets hands with clean water and flows up to the elbows	27	67.5	13	32.5
3.	Midwives use liquid soap to wash hands	27	67.5	13	32.5
4.	Midwives wash their hands with a 6-step procedure	31	77.5	9	22.5
5.	The midwife rinses hands with clean water and flows up to the elbows	23	57.5	17	42.5
6.	Midwives dry their hands by airing them with clean and dry tissue paper or personal towels	19	47.5	21	52.5
7.	Midwives wear gloves appropriate to hand size	13	32.5	27	67.5
8.	Midwives wear gloves correctly, paying attention to the thumb of the glove. The thumb of the glove signifies the glove for the left hand and vice versa.	21	52.5	19	47.5
9.	With 1 hand the glove is taken by holding the inside folded out	21	52.5	19	47.5
10.	After the gloves were attached, they were left and with the hand that had been wearing the gloves, the midwife took the glove next to it by slipping the hand into the fold of the glove.	18	45	22	55
11.	The midwife puts on the gloves properly, then straightens the folds	16	40	24	60
12.	Midwives wear gloves while sucking mucus from the newborn's airway.	16	40	24	60
13.	The midwife places sharp objects on a sterile tray or DTT or by using a designated safe area	17	42.5	23	57.5
14.	The midwife is careful to do the sewing to avoid accidental stab wounds.	20	50	20	50
15.	Midwives use needle holders and tweezers when sewing. The midwife does not feel the tip of the needle or hold the sewing needle by hand.	22	55	18	45
16.	The midwife does not close, bend, break or release the needle to be discarded	26	65	14	35
17.	The midwife discards the leak-proof container and seals it with adhesive when it is 2/3 full	19	47.5	21	52.5
18.	If sharp objects cannot be disposed of safely, the midwife rinses 3x 0.5% chlorine solution, then closes again using the one-handed technique and then buried.	16	40	24	60
19.	After completing the delivery, the midwife cleans the equipment by separating the tools made of metal from sharp objects.	21	52.5	19	47.5
20.	Midwives use soap and water to remove residual blood and debris.	18	45	22	55
21.	For equipment that is high-level disinfected by boiling, the midwife does not dry the equipment first.	18	45	22	55
22.	The midwife uses a pot with a tight-fitting lid to disinfect equipment by boiling.	20	50	20	50
23.	The midwife boils the equipment for 20 minutes	18	45	22	55
24.	Midwives let equipment dry by airing before use or storage	21	52.5	19	47.5
25.	The midwife always provides a bucket of bleach solution (unused 0.5% chlorine The midwife poured 0.5% chlorine solution on the blood splash and then wiped it with a cloth.	23	57.5	17	42.5
26.		25	62.5	15	37.5
27.	After using the delivery bed, table, procedure trolley, the Midwife immediately wipes the surfaces and parts of the equipment with a cloth moistened with 0.5% chlorine and detergent.	16	40	24	60
28.	After the midwife has finished assisting the delivery, wipe the apron using a 0.5% chlorine solution.	20	50	20	50
29.	The midwife cleans floors, walls, or other flat surfaces with a 0.5% chlorine solution and detergent by cleaning from top to bottom so that fallen dirt can be removed	21	52.5	19	47.5
30.	Midwives prevent contact between contaminated waste and the outer surface of the bag.	22	55	18	45

From the table above, it can be seen that many respondents have taken precautions to prevent puerperal infection, but there are also procedures that have not been carried out. Of the 30 steps of postpartum infection prevention procedures, the action that most respondents took was the midwife removing all jewelry on the fingers and hands as many as 33 people (82.5%) and the least action was taken by the midwife, namely the midwife wearing gloves according to the size of the hand, namely as many as 13 respondents (32.5%)

Table 3. Distribution of Respondents Implementation Level in Prevention of Postpartum Infection by Private Practice Midwives

No	Execution rate	N	%
1.	Not enough	24	60
2.	Well	16	40
	Amount	40	100

Respondents' implementation of puerperal infection prevention was divided into 2 categories, namely poor and good. From the table above, it can be seen that of the 40 respondents, most of them had a low level of implementation as many as 24 people (60%) and a small part had a good level of implementation as many as 16 people (40%).

3.2. Discussion
3.2.1. The Relationship between Characteristics and Implementation of Prevention of Postpartum Infection by Respondents

Based on the results of research on the relationship of characteristics with the implementation of prevention of puerperal infection by private practice midwives, it is obtained as follows

Table 4. Relationship between Age and Implementation of Prevention of Postpartum Infection by Private Practice Midwives in the Health Center Area Labuhan Rasoki 2022

No	Age	Implementation of Prevention of Puerperal Infection				Total		Score	OR (95% CI)
		Not enough		Well				P	
		n	%	N	%	N	%		
1.	22 – 39 years old	19	82.6	4	17.4	23	100.0	0.002	11,400
2.	40 – 56 years	5	29.4	12	70.6	17	100.0		

The results of the analysis of the relationship between age and the implementation of respondents regarding prevention of puerperal infection were obtained that of 23 respondents, aged between 22 -39 years, most of whom had less implementation of puerperal infection prevention as many as 19 people (82.6%) while from 17 respondents aged between 40-56 years, most of them had good implementation of prevention of puerperal infection as many as 12 people (70.6%).

The results of statistical tests obtained p value = 0.002, so it can be concluded that there is a significant relationship between age and the implementation of puerperal infection prevention. From the results of statistical tests, the value of OR=11,400 means that respondents aged between 40-56 years have 11 times better chance of preventing puerperal infection than respondents aged 22-39 years.

Table 5. Relationship between Education and Implementation of Prevention of Postpartum Infection by Private Practice Midwives in the Work Area of the Puskesmas Labuhan Rasoki 2022

No	Education	Implementation of Prevention of Puerperal Infection				Total		Score	OR (95% CI)
		Not enough		Well				P	
		N	%	N	%	n	%		
1.	IN	17	77.3	5	22.7	22	100.0	0.032	5,343
2.	Obstetrics D-III Midwifery	7	38.9	11	61.1	18	100.0		

From the table of the relationship between education and the implementation of prevention of puerperal infection by private practice midwives, it was found that from 22 respondents with D-I Midwifery education, 17 people (77.3) had less implementation of puerperal infection prevention. While respondents who have a D-III Midwifery education from 18 respondents there are 11 people (61.1%) who have good infection prevention practices. The results of statistical tests obtained p value = 0.032, it can be concluded that there is a significant relationship between education and the implementation of puerperal infection prevention.

From the results of the statistical test, the value of OR = 5.343 also means that respondents who have D-III Midwifery education have a 5 times better chance of preventing puerperal infection compared to respondents who have education in Midwifery.

Table 6. Relationship between work experience and implementation of prevention of puerperal infection by private practice midwives

No	Work experience	Implementation of Prevention of Puerperal Infection				Total		Score	OR (95% CI)
		Not enough		Well				P	
		n	%	n	%	n	%		
1.	1-13 years	11	84.6	2	15.4	13	100.0	0.063	5,923
2.	14 – 26 years old	13	48.1	14	51.9	27	100.0		

From the analysis of the long working relationship with the implementation of prevention of puerperal infection 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 infection prevention practices as many as 11 people (84.6%), while respondents who had experience 14-26 year olds mostly have good infection prevention practices as many as 14 people (51.9%)

The results of statistical tests obtained p value = 0.063, it can be interpreted that there is no significant relationship between work experience and the implementation of puerperal infection prevention. From the statistical test results, it was also found that the value of OR = 5.923 means that respondents who have work experience of 14 - 26 years have a 5 times better chance of preventing puerperal infection than respondents who have work experience of 1 - 13 years.

4. CONCLUSION

Based on the characteristics of the respondents consisting of age, education, and work experience, it is known from 40 respondents who have the age between 22-39 years as many as 23 people (57.5%), based on education most of the respondents have D-III education on the implementation of prevention of puerperal infection it is known from 40 respondents as many as 24 people (60%) have a low level of implementation.

Based on the relationship between characteristics and implementation, it is known that there is a relationship between age and the implementation of puerperal infection prevention, it can be seen from the p value = 0.002, there is a relationship between education and the implementation of puerperal infection prevention, as seen from the p value = 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.

REFERENCES

[1] Ambarwati. (2008). Postpartum Midwifery Care . Yogyakarta: Partner Cendikia.
[2] Arikunto, Suharsimi. (2006) . Research Procedure: a practical approach . Jakarta : Rineka Cipta.
[4] Barata, D. (2006). Save Indonesian Mothers and Children. http://www.dinkes.com. August 31, 2008.
[5] Health Office, Provsu. (2008). Health Profile of North Sumatra Province. Medan : North Sumatra Provincial Health Office.
[6] Dr Nugraha, taken from Http // www.wordpress.com//buku – pws-kia-chapter 1- introduction
[7] Hidayat, A. Azis, Alimul. (2007) . Nursing Research and Scientific Writing Techniques. Jakarta: Salemba Medika.
[8] Hidayat, A. Azis, Alimul. Uliyah, Musrifatul. (2006) . Basic Skills for Midwifery Clinical Practice . Ed.1. Jakarta: Salemba Medika.
[9] Hurlock, EB (1999). Development Throughout the Life Span . Jakarta : Erlangga.
[10] Cherin, 2009. The Relationship of Education with Knowledge . Http://www.wordpress.com retrieved April 3, 2010
[11] JNPK-KR/POGI. (2007) . Normal Childbirth Care Training Reference Book . Ed.3.Jakarta: National Network of Clinical Training.
[12] Jenny. (2006) . Postpartum Care for Mother and Baby . Jakarta : Faithful Friend
[13] Juliana, ES (2008). Midwifery Service Management . Jakarta : EGC.
[14] Manuaba, Ida Bagus Gde. (1999). Understanding Women's Reproductive Health . Jakarta : EGC   (2006). Capita Selecta Routine Management of Obstetrics, Gynecology and Family Planning . Jakarta : FK UI
[15] Notoatmodjo, Soekidjo. (2002). Midwifery Research Methodology . Printing III, Revised Edition. Jakarta : Rineka Cipta
[16] Notoadmodjo, Soekidjo. (2003). Midwifery Research Methodology . Printing IV, Revised Edition. Jakarta : Rineka Cipta
[17] Nursalam, (2003), Concept and Application of Nursing Research Methodology Guidelines for Thesis, Thesis, and Nursing Research Instruments, Jakarta : Salemba
[18] Nursalam. (2008). Concept and Application of Nursing Research Methodology. Jakarta : Salemba Medika.
[19] Pinem, Saroha. (2008). Reproductive Health and Contraception . Jakarta : Trans InfoMedia.
[20] Prasetyo, Bambang. (2007) . Quantitative Research Methodology . Jakarta : PT. King of Grafindo
[21] Pusdiknakes. (2003) . Post Partum Midwifery Care . Jakarta: Pusdiknakes.
[22] Riyanto, Agus. (2009). Health Data Processing and Analysis . First Printing. Yogyakarta : Nuha Medik a
[23] Saifuddin, Abdul Bari. (2002) . National Reference Book for Maternal and Neonatal Health Services . Ed – II . Jakarta : EGC
[24] Sofia. (2006) . Midwives Welcoming the Future . Jakarta.
[25] Widiastuti, Ni & Adnyani, Ni. (2018). The implementation of prevention of mother-to-children HIV transmission program by private midwife practice at Denpasar city. International Journal of Research in Medical Sciences. 7. 121. 10.18203/2320-6012.ijrms20185365.
[26] Munoz-Price, L. Silvia & Bowdle, Andrew & Johnston, B. & Bearman, Gonzalo & Camins, Bernard & Dellinger, E. & Geisz-Everson, Marjorie & Holzmann-Pazgal, Galit & Murthy, Rekha & Pegues, David & Prielipp, Richard & Rubin, Zachary & Schaffzin, Joshua & Yokoe, Deborah & Birnbach, David. (2018). Infection prevention in the operating room anesthesia work area. Infection Control & Hospital Epidemiology. 40. 1-17. 10.1017/ice.2018.303.