

---

## Factors Affecting Performance Midwife in Antenatal Care Services in Puncak Jaya Regency

Safitri Nur Aida<sup>a</sup>, Arius Togodly<sup>b\*</sup>, Yacob Ruru<sup>c</sup>

<sup>a</sup>Postgraduate Master Program of Public Health, Faculty of Public Health, Cenderawasih University

<sup>b</sup>Faculty of Public Health, Cenderawasih University, Jayapura Papua, Indonesia, 99351

<sup>c</sup>Department of Statistics, Faculty of Mathematics and Natural Sciences, Cenderawasih University

<sup>a</sup>Email: safitriaida79@gmail.com; <sup>b</sup>Email: ariustogodly20@gmail.com; <sup>c</sup>Email: yacobruru@yahoo.com

### Abstract

**Background:** Antenatal services are health services provided to mothers during their pregnancy in accordance with minimum service standards. For the achievement of the MCH program in Puncak Jaya Regency based on the Minimum Service Standards (SPM) indicator, it shows that the coverage of pregnancy services is the percentage of K1 (75%) and K4 (60%) which indicates that the ANC service standard achievement target  $\geq 80\%$  has not been achieved. **Research Objectives:** To find out the factors that influence the performance of midwives in antenatal care services in Puncak Jaya regency. **Research method:** Observational analysis with cross sectional study design. The population was all midwives in Puncak Jaya Regency who worked at Puskesmas Mulia, Ilu, Tingginambut, Yamo, Jigonikme, Fawi, Mewoluk and Torere, with a total sample of 32 midwives or total sampling. Data obtained using a questionnaire and analyzed using chi square and binary logistic regression. **Results:** Factors that influence the performance of midwives in ANC services in Puncak Jaya Regency, namely: age (p-value 0.046; RP = 2.200; CI 95% (0.990 - 4.888), employee status (p-value 0.018; RP = 2.556; CI95% (1.395 - 4.682), tenure (p-value 0.004; RP = 3.215; CI95% (1.463 - 7.006), attitude (p-value 0.001; RP = 4.333; CI95% (1.521 - 12.344), motivation (p-value 0.011; RP = 2,788; CI 95% (1,358 - 5,682), and facilities (p-value 0,008; RP = 2,829; CI 95% (1,483 - 5,395). The factor that does not affect the performance of midwives in ANC services in Puncak Jaya Regency is knowledge (p -value 0.479; RP = 1.457; CI95% (0.722-2942) and leadership of the Head of Puskesmas (p-value 1,000; RP = 0.824; CI95% (0.324 - 2.099).

---

\* Corresponding author.

Dominant factors that influence the performance of midwives in ANC services in Puncak Regency Jaya is an attitude, and facilities and infrastructure.

**Keywords:** Midwives; performance; services; ANC.

## **1. Introduction**

Indonesia is one of the countries in the Association of South East Asian Nations (ASEAN) that has a high MMR. According to the 2017 Indonesian Demographic and Health Survey (IDHS) data, MMR in Indonesia reached 305 / 100,000 live births. Not only is the MMR high, but the Neonatal Mortality Rate (IMR) in Indonesia is still very high, namely as much as 185 / day with the IMR of 15/1000 Live Births. Three-quarters of neonatal deaths occur in the first week, and 40% die within the first 24 hours [1]. These deaths should have been prevented and saved, meaning that if the MMR was high, many mothers should not have died but because they did not receive the proper prevention and treatment efforts. The mother died from obstetric complications that were not handled properly and on time. About 15% of pregnancies / deliveries have complications, 85% are normal [1]. Pregnancy complications are unpredictable, meaning that every risky pregnancy requires the readiness of quality services at all times, or 24 hours 7 days, so that all pregnant / giving birth who experience complications at any time have access to quality emergency services in a fast time, because some complications require emergency services emergency in hours. Approximately 75% of maternal deaths are caused by severe bleeding (mostly postpartum bleeding), infection (usually postpartum), high blood pressure during pregnancy (preeclampsia / eclampsia), prolonged labor / obstruction and unsafe abortion [1]. The Indonesian Government's efforts in this case the Ministry of Health in order to suppress MMR and IMR as well as improving the quality of maternal and child health services are seen in programs, one of which is through the Safe Motherhood Movement program, the Maternity Planning and Complication Prevention Program (P4K). Initially, this program focused its activities on increasing the capacity of midwives. However, the program target then shifted to improving and improving the performance of midwives, strengthening the quality of health services, especially for maternal and child health [2]. The quality of health services provided by midwives in the basic health service unit is inseparable from the factors of salary, job security, working conditions, quality of technical supervision, quality of interpersonal relationships which can affect the performance of the midwife outside of the midwife and factors of recognition, responsibility, progress, the job. itself, the possibilities for career development can affect the performance of the midwife. These two factors are sufficient to contribute in determining the level of quality of maternal and child health services [2]. Antenatal services are health services provided to mothers during their pregnancy according to the standards set out in the Antenatal Service Guidelines for Puskesmas officers. Complete antenatal care includes anamnesis, general and obstetric physical examinations, laboratory tests as indicated, as well as basic and specific interventions (according to the risks involved). The operational application is known as the "10T" standard for antenatal care (weigh and measure body height, measure blood pressure, value nutritional status (LILA), measure uterine fundal level, determine fetal presentation and fetal heart rate, give TT immunization, give additional tablets blood, laboratory examinations, case handling and discussion (counseling). In monitoring the health service program for pregnant women, it was assessed using indicators of K1 and K4 coverage. Nationally, K1 coverage in 2019 was 82.9% and K4 coverage was 88.9%. This number is still below the national target, namely 100% K1 and 95% K4

coverage (Kemeneks RI, 2019). Meanwhile, the Papua Provincial Health Office (2019) reported that K1 coverage was 80.9% and K4 was 36.7%. This data shows that nationally, the coverage of antenatal care visits is still far from expectations. The low coverage of the Maternal and Child Health (KIA) program is influenced by the results of the respective achievements in 29 districts / cities in Papua Province, including Puncak Jaya Regency, which has 8 health centers. For the achievement of the MCH program in Puncak Jaya Regency based on the Minimum Service Standards (SPM) indicator, it shows that the coverage of pregnancy services is the percentage of K1 (75%) and K4 (60%) which shows the achievement of ANC service standards 80% in Puncak Jaya Regency has not been able to meet target. The results of the observation show that the existing facilities are not maximal in some Puskesmas, thus hindering them in providing services. In addition, the midwives in several health centers are contract workers who have an effect on the incentives given because the high cost of living in Puncak Jaya Regency also affects the morale of midwives at work. On average, contract workers are under 30 years of age which has an impact on field experience and communication to the community in providing ANC services. Most midwives have been trained in midwives and are trained in providing services. However, this low achievement is inseparable from the characteristics, managerial ability of the head of the puskesmas, years of service, incentives and adequate facilities and infrastructure. Performance in an organization is carried out by all existing human resources, both leaders and subordinates. According to Gibson in Wijono (2018), performance is influenced by three variables, namely individual, organizational, and psychological variables [3]. Individual variables are grouped into abilities and skills, background and demographics sub-variables. The ability and skill sub variables are the main factors that influence individual behavior and performance. Demographic variables have an indirect effect on individual behavior and performance. Organizational variables have an indirect effect on individual behavior and performance. Organizational variables are classified into sub-variables of resources, leadership, rewards, work structure and design. Based on the description of the problem above, the researcher is interested in conducting a study on "Factors that affect the performance of midwives in Antenatal care services in Puncak Jaya Regency."

## **2. Materials and Methods**

This research is an observational study with a cross-sectional study design. Cross sectional study is a study design that studies variables including risk factors and variables that include effects being observed at the same time [4]. This research was conducted at the Puncak Jaya Regency Health Office at 8 Puskesmas (Puskesmas Mulia, Ilu, Tingginambut, Yamo, Jigonikme, Fawi, Mewoluk and Torere). The research was conducted in December 2020. The reason for choosing eight Puskesmas Health Office of Puncak Jaya Regency as research sites was because ANC services did not reach the target and research had never been carried out on the factors that influenced the performance of midwives in ANC services. The population in this study were all midwives in eight health centers (Puskesmas Mulia, Ilu, Tingginambut, Yamo, Jigonikme, Fawi, Mewoluk and Torere) as many as 32 people. The sample in this study was a total population of 32 people.

## **3. Result and Discussion**

### **3.1. Univariate Analysis**

An overview of the univariate used to classify each variable of the sample. This study only shows the frequency

and percentage of each variable. The findings of the study can be found in Table 1:

**Table 1:** Distribution of respondents by age, education, employee status, years of service, knowledge, attitude, motivation, leadership of the head of PHC, and performance of midwife.

No	Variable	Frequency (n)	Percentage (%)
1	Age		
	< 30 years old	16	50.0
	≥ 30 years old	16	50.0
2	Education		
	D3 Midwifery	25	78.1
	D4 Midwifery	1	3.1
	S1 Midwifery	6	18.8
3	Employee status		
	Temporary	9	28.1
	Permanent	24	71.9
4	Years of service		
	< 5 years	13	40.6
	≥ 5 years	19	59.4
5	Knowledge		
	Less	15	46.9
	Good	17	53.1
6	Attitude		
	Negative	14	43.8
	Positive	18	56.2
7	Motivation		
	Low	12	37.5
	High	20	62.5
8	Leadership of the head of PHC		
	Less	42	46.7
	Good	48	53.3
9	Facilities and infrastructure		
	Not adequate	10	31.3
	Adequate	22	68.7
10	Performance		
	Less	16	50.0
	Good	16	50.0
Total		32	100.0

Source: Primary Data, 2021

Based on table 1, it shows that the same number of respondents aged <30 years are 16 people (50%) and > 30 years old are 16 people (50%), most of the midwives have a D3 Midwifery education as many as 25 people (78.1%), employee status Most of them are non-permanent employees as many as 24 people (71.9%) and working period > 5 years as many as 19 people (59.4%). Most respondents have good knowledge as many as 17 people (53.1%). As for the attitude of midwives who have negative attitudes as many as 14 people (43.8%) and positive attitudes as many as 18 people (56.2%). Most of the motivation was high as many as 20 people (62.5%). The leadership of the head of the Puskesmas was mostly in the good category as many as 25 people (78.1%). The responses of respondents about the availability of adequate facilities were as many as 22 people (68.7%) and good performance of midwives as many as 16 midwives (50%).

**3.2. Bivariate Analysis**

Bivariate analysis was performed to determine the relationship between independent and dependent variables. In order to assess the association between the risk factors and the performance of midwives, the chi-square test was used at a significant level of 5%. The results of the bivariate analysis are shown in the following table:

**a. The Effect of Age on the Performance of Midwives in ANC Services**

Table 2 shows that of the 16 people aged <30 years, 11 people (68.8%) had poor performance in ANC services. Meanwhile, from 16 people > 30 years old, 11 people (68.8%) had good performance. The results of the chi square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained a p-value of 0.046 or  $p < \alpha$  (0.05). This means that age has an influence on the performance of midwives in ANC services in Puncak Jaya Regency. When viewed from the value of  $RP = 2,200$ ;  $CI\ 95\%$  (0.990 - 4.888) which is interpreted that midwives aged <30 years have the opportunity to underperform in ANC services 2.200 times greater than midwives aged > 30 years.

**Table 2:** The Effect of Age on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Age	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
< 30 years old	11	68.8	5	31.2	16	100
$\geq$ 30 years old	5	31.2	11	68.8	16	100
Total	16	50.0	16	50.0	32	100
P-value = 0.046; $RP = 2.200$ ; $CI95\% = (0.990 - 4.888)$						

Source: Primary Data, 2021

**b. The Effect of Employee status on the Performance of Midwives in ANC Services**

Table 3 shows that out of 9 people with non-permanent employee status, 8 people (88.9%) had less performance in ANC services. Meanwhile, of the 23 permanent employees, 15 (65.2%) had good performance. The results of the chi square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained a p-value of 0.018 or  $p < \alpha$  (0.05). This means that there is an effect of employee status on the performance of midwives in ANC services in Puncak Jaya Regency. When viewed from the value of  $RP = 2.556$ ;  $CI\ 95\%$  (1.395 - 4.682) interpreted that the status of non-permanent employees has the opportunity to underperform in ANC services 2.556 times greater than midwives with permanent employees.

**Table 3:** The Effect of Employee status on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Employee status	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
Non-permanent	8	88.9	1	11.1	9	100
<u>Permanent</u>	8	34.8	15	65.2	23	100
Total	16	50.0	16	50.0	32	100
P-value = 0.018; RP = 2.556; CI95% = (1,395 – 4.682)						

Source: Primary Data, 2021

**c. The Effect of Years of service on the Performance of Midwives in ANC Services**

Table 4 shows that of the 13 people with a service period of <5 years, 11 people (84.6%) had less performance in ANC services. Meanwhile, of the 19 people working > 5 years, 14 people (73.7%) had good performance. The results of the chi square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained a p-value of 0.004 or  $p < \alpha$  (0.05). This means that there is an effect of tenure on the performance of midwives in ANC services in Puncak Jaya Regency. RP value = 3,215; CI 95% (1,463 - 7,006) interpreted that the service period <5 years has the opportunity to have less performance in ANC services 3.215 times greater than midwives with a work age of > 5 years.

**Table 4:** The Effect of Years of service on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Years of service	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
< 5 years	11	84.6	2	15.4	13	100
$\geq$ 5 years	6	26.3	14	73.3	19	100
Total	16	50.0	16	50.0	32	100
P-value = 0.004; RP = 3.215; CI95% = (1.463 – 7.066)						

Source: Primary Data, 2021

**d. The Effect of Knowledge on the Performance of Midwives in ANC Services**

Table 5 shows that out of 15 people with less knowledge, 9 (60%) had less performance in ANC services. Meanwhile, from 17 people with good knowledge, 10 (58.8%) had good performance. The results of the chi

square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained p-value 0.479 or  $p > \alpha$  (0.05). This means that there is no influence of knowledge on the performance of midwives in ANC services in Puncak Jaya Regency. When viewed from the value of RP = 1.457; interpreted 95%CI (0.722-2.942) is not significant.

**Table 5:** The Effect of Knowledge on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Knowledge	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
Less	9	60.0	6	40.0	15	100
Good	7	41.2	10	58.8	17	100
Total	16	50.0	16	50.0	32	100
P-value = 0.479; RP = 1.457; CI95% = (0.722 – 2.943)						

Source: Primary Data, 2021

**e. The Effect of Attitude on the Performance of Midwives in ANC Services**

**Table 6:** The Effect of Attitude on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Attitude	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
Negative	12	85.7	2	14.3	14	100
Positive	4	22.2	14	77.8	18	100
Total	16	50.0	16	50.0	32	100
P-value = 0.001; RP = 3.857; CI95% = (1.583 – 9.396)						

Source: Primary Data, 2021

Table 6 shows that of the 14 people with negative attitudes, 12 people (85.7%) had poor performance in ANC services and 2 people were good (14.3%). Meanwhile, from 18 people with a positive attitude, 14 people (77.8%) had good performance. The results of the chi square statistical test at a significance value of 95% ( $\alpha = 0.05$ ) obtained a p-value of 0.001 or  $p < \alpha$  (0.05). This means that there is an influence of attitude on the performance of midwives in ANC services in Puncak Jaya Regency. When viewed from the value of RP = 3.857; CI 95% (1.583 - 9.396) which interpreted that a negative attitude has a probability of performance in ANC services less 3.857 times greater than a positive attitude.

**f. The Effect of Motivation on the Performance of Midwives in ANC Services**

Table 7 shows that of the 12 people with low motivation, 10 (83.3%) had poor performance in ANC services,

while 14 of the 20 people with high motivation (70%) had good performance. The results of the chi square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained a p-value of 0.011 or  $p < \alpha$  (0.05). This means that there is a motivational influence on the performance of midwives in ANC services in Puncak Jaya Regency. When viewed from the value of  $RP = 2.788$ ;  $CI\ 95\%$  (1.358 - 5,682) which interpreted that low motivation of midwives has a chance of performance in ANC services less 2.788 times greater than motivation of high midwives.

**Table 7:** The Effect of Motivation on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Motivation	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
Low	10	83.3	2	16.7	12	100
High	6	30.0	14	70.0	20	100
Total	16	50.0	16	50.0	32	100
P-value = 0.011; RP = 2.778; CI95%= (1.358 – 5.682)						

Source: Primary Data, 2021

**g. The Effect of The Leadership of the head of PHC on the Performance of Midwives in ANC Services**

Table 8 shows that out of 7 people with less leadership from the Head of the PHC, 3 (42.9%) had less performance in ANC services. Meanwhile, of the 25 people with good leadership from the head of the PHC, 12 (48%) had poor performance. The results of the chi square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained p-value 1,000 or  $p > \alpha$  (0.05);  $RP = 0.824$ ;  $95\% CI$  (0.324 - 2.099). This means that there is no influence of the leadership of the head of the PHC on the performance of midwives in ANC services in Puncak Jaya Regency.

**Table 8:** The Effect of the Leadership of the head of PHC on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Leadership	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
Less	3	42.9	4	57.1	7	100
Good	13	52.0	12	48.0	25	100
Total	16	50.0	16	50.0	32	100
P-value = 1.000; RP = 0.824; CI95%= (0.324 – 2.099)						

Source: Primary Data, 2021

**h. The Effect of The Facilities and infrastructure on the Performance of Midwives in ANC Services**

Table 9 shows that out of 10 people with inadequate facilities and infrastructure, 9 people (90%) have poor performance in ANC services. Meanwhile, of the 22 people with adequate facilities and infrastructure, 15



people (68.2%) had good performance. The results of the chi square statistical test at a significance value of 5% ( $\alpha = 0.05$ ) obtained p-value 0.008 or  $p < \alpha (0.05)$  ;. This means that there is an influence of facilities and infrastructure on the performance of midwives in ANC services in Puncak Jaya Regency. RP value = 2.829; CI 95% (1,483 - 5,395) which is interpreted that inadequate facilities have the opportunity for performance in ANC services to be less than 2.829 times greater than adequate facilities.

**Table 9:** The Effect of the Facilitis and Infrastructure on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center

Facilities and Infrastructure	Midwife Performance				Total	
	Less		Good		n	%
	n	%	n	%		
Inadquate	9	90.0	1	10.0	10	100
Adequate	7	31.8	15	62.8	22	100
Total	16	50.0	16	50.0	32	100
P-value = 0.008; RP = 2.829; CI95%= (1.483 – 5.395)						

Source: Primary Data, 2021

### 3.3. Multivariate Analysis

Multivariate analysis used in this study was multiple logistic regressions. This analysis is a mathematical model used to study the relationship between two or several independent variables and one dichotomous dependent variable [10]. This analysis was intended to determine the dominant risk factors on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center. The results of the multivariate analysis can be seen in table 10.

**Table 10:** The result of Multiple Logistic Regression Analysis with Backward LR Method between Independent Variables on the Performance of Midwives in ANC Services at the Puncak Jaya District Health Center.

Covariate	B	p	OR	95%CI
Attitude	3.742	0.004	42.185	3.339 - 532.995
Facilities and Infrastructure	3.772	0.012	43.480	2.288 - 826.200
Constant	-12.415	0.002	0.000	

Source: Primary Data, 2021

Table 10 above shows that from the Backward LR binary logistic regression results show the dominant factors that influence the performance of midwives in ANC services are attitudes, and facilities and infrastructure.

## **4. Discussion**

### ***4.1. The Effect of Age on the Performance of Midwives in ANC Services***

The results showed that there was an effect of age on the performance of midwives in ANC services in Puncak Jaya Regency Puskesmas (p-value 0.046) and from the results of the prevalence ratio test it was interpreted that midwives aged <30 years had a chance of having less performance in ANC services 2,200 times greater than midwives who are > 30 years old. This research is in line with research conducted by Lamere (2018) at Puskesmas in Gowa Regency that there is a relationship between age and performance of midwives [5]. Midwives in Puncak Jaya Regency who are <30 years old are 68.8% of underperformance in ANC services and from 16 people aged > 30 years are lower or as much as 31.2% underperformance in ANC services. This means that the older the respondent, the higher the performance on antenatal care services. Getting older means the more experience you get in serving so that it has an effect on improving the health of mothers and children. Indirectly, the respondents learn while practicing. Of course this will have an impact on the performance of the midwife. According to the assumptions of researchers, the age of a midwife > 30 years is the middle and late adult category. Midwives who are in this age range have good experience at work. However, some midwives aged > 30 years were also found to have underperformance, this is due to the performance of the midwives, because as they get older their work productivity will decline. Meanwhile, those aged <30 years have high productivity, but midwives lack experience in handling the community with various problems in providing services. In addition, with increasing age the psychological maturity is more mature in dealing with a problem. Midwives who have good performance are, on average, more skilled and nimble, this is also associated with more work experience for senior midwives. Based on observations during the study, the basic thing about age differences is only in terms of making reports using computerized. Midwives who are more senior in age are not able to operate the software to input reports with computers, for this reason, in this case, the leadership delegates work to the junior midwives. A good division of labor in this case is also needed in order to create a good working environment to improve the performance of midwives, one example is midwives who are more senior who hold the responsibility for reports in written form, while their juniors are tasked with inputting computerized reports. so that no midwife feels burdened. The existence of other factors related to the performance of the midwife, such as a sense of responsibility within the midwife, synergistic environmental conditions, the role of leadership, peer support and a sense of responsibility and demands for work, encourages the motivation of the midwife to work more actively. So that there is no age difference in creating a good performance. The results of the study are in accordance with the opinion of Azwar (2013) that age will have an influence on a person's physical and psychological strength. At certain ages a person will experience changes in work performance. Young people are more easily subjected to persuasion or are easier to provide input about new things with approaches. This means that someone with a young age is more accessible and easier to be given input on new things than someone with an old age. The results showed that the characteristics of a midwife based on age greatly affect performance in midwifery practice, where the older the nurse is, the more responsible and experienced they are in accepting a job. As the age increases, the wisdom of one's ability to make decisions, think rationally, control emotions and tolerate the views of others will also increase, so that it will affect their performance improvement.

#### ***4.2. The Effect of Employee status on the Performance of Midwives in ANC Services***

The results showed that there was an effect of employee status on the performance of midwives in ANC services at Puskemas Puncak Jaya Regency (p-value 0.018). The results of the prevalence ratio test interpreted that the status of employees who were not permanent had the opportunity to have less performance in ANC services 2.556 times greater than that of midwives with permanent employees. The results of this study are in line with research conducted by Adiputri (2014), which states that there is a relationship between employee status and performance of midwives in ANC services [6]. This is related to the compensation given. The lack of performance of midwives in ANC services is because employees who are permanent employees or state civil servants have a fixed salary with incentives provided according to performance. Meanwhile, temporary employees provide compensation depending on the Puskesmas policy. The difference in the provision of these incentives causes the midwife's dissatisfaction which affects their performance. Financial compensation is included in the enabling factors that support or influence performance. Midwives who are not employees who do not receive appropriate financial compensation will encourage dissatisfaction in themselves so that their work will be less good and vice versa. The results of this study also illustrate the results of the midwives' perceptions of work incentives having good perceptions of incentives. Although there are still those who have a poor perception that there are complaints about the slow realization, but so far the incentives received by midwives have been felt to be very adequate, especially with the discourse about additional professional allowances, this has been felt to be very adequate for midwives. Currently, health workers, especially midwives, are given additional allowances from BOK funds. Apart from funding for service activities, incentives also play an important role in motivating midwives and efforts to improve midwife performance. Incentives are classified into 2 forms, namely material incentives and non-material incentives. Compensation and allowances are one form of material incentives. Adequate compensation is the main thing in work because it is to make ends meet. Midwives will be more motivated to develop if it is balanced with compensation in the form of an appropriate salary. Apart from compensation, each individual also needs awards for achievement. Providing appropriate rewards can increase the motivation of midwives in providing good service. Another research supported by Nisa (2019) explains that financial compensation with the performance of midwives has a significant relationship in providing services [7]. This will trigger village midwives not to improve their performance as village midwives, because the results received are the same and are not different from other village midwives. This problem needs to be addressed again, that the compensation received by midwives, in this case the services received, needs to be adjusted to the level of performance that has been carried out, so that this will spur midwives to further improve their performance in carrying out their main duties and functions as a midwife.

#### ***4.3. The Effect of Years of service on the Performance of Midwives in ANC Services***

The results showed that there was an effect of working tenure on the performance of midwives in ANC services at the Puskemas of Puncak Jaya Regency (p-value 0.004) with the results of the prevalence ratio test interpreted that the service period <5 years was likely to have less performance in ANC services 3.215 times greater than that of midwives with a service life of > 5 years. The results of the study are in line with research conducted by Wahyuningsih (2018), which states that there is a relationship between tenure and the performance of midwives [8]. The working period of a midwife greatly influences the performance of the midwife during the visit, the

more senior the midwife the better the performance compared to midwives with lower seniority. So the conclusion is that with the length of the work period, the more experience or lessons you get, the better the performance so that in providing services for the examination of pregnant women, midwives can perform according to standards so that the coverage of services for pregnant women is achieved according to what has been determined so that patients want to make repeat visits. The period of work is the time when people have worked in an office, agency and so on. The working period (length of work) of a person needs to be known because it can be an indicator of the tendencies of workers. For example, it is related to work productivity, the longer a person works, the higher the productivity, because the more experienced he will be in completing the tasks entrusted to him [9]. The actual working period can determine whether a midwife is right to carry out the job as a midwife. The longer the working period of a midwife, it is hoped that he will have more control over the situation in his working area. However, working tenure is also influenced by responsibilities in the implementation of ANC, so that the tenure is not too influential in the implementation of KIA management [10]. According to Andriani [11], the working period is also the period of time someone who has worked from the first start to work. The working period can be interpreted as a piece of time that is rather long in which a worker enters one area of business to a certain extent. The working period is the accumulation of a person's work activities carried out over a long period of time. If these activities are carried out continuously it will cause disturbances in the body. Physical stress at a certain period of time results in reduced muscle performance, with symptoms of reduced movement. The stresses will accumulate every day over a long period of time, resulting in deteriorating health which is also known as clinical or chronic fatigue. The relationship between the tenure and the midwife's performance is due to the fact that the long service period adds to the experience, so that it can improve the performance of midwives.

#### ***4.4. The Effect of Knowledge on the Performance of Midwives in ANC Services***

The results showed that there was no influence of knowledge on the performance of midwives in ANC services in Puskemas Puncak Jaya Regency (p-value 1,000). The results of this study are in line with research conducted by Abu [12] at Puskesmas Mantingan, Ngawi Regency, that there is no influence of knowledge on the performance of midwives. The performance level of midwives in providing antenatal care services can be related to various factors around them. Factors related to performance are individual, psychological and organizational variables. Individual factors related to performance are knowledge, work maturity, skills, social level, family, and demographics. Psychological factors related to the performance of midwives are perceptions of rewards, work motivation, attitudes, personality, and learning (Wijono, 2018). Knowledge is the intellectual ability and level of understanding of midwives, especially the competence of midwives in providing antenatal care services according to the midwifery education needed to carry out their general functions as a midwife, including: early detection, treatment or referral of certain complications and their special functions as a manager, educator and researcher. Knowledge is closely related to education that a person with higher education has a wider knowledge, in this case the majority of respondents have a Diploma III Midwifery (78.1%), D4 Midwifery (3.1%) and S1 Midwifery (18.8%). Knowledge is a factor that influences a person to behave positively and produce good output. The better the knowledge of midwives about antenatal care services, the more enthusiastic and better the quality of their work will be in carrying out their duties. If the knowledge of a midwife is a midwife, k will feel happy to share knowledge and help people in need according to the oath that is

pronounced as a midwife. However, if the knowledge is lacking, then the person concerned will be lazy, afraid to serve the patient because he is worried about the questions that arise from the patient and family, officers like this also cannot give satisfaction to the patient and to himself. Phenomenon in the field found that the majority of midwives have good knowledge of midwifery care for pregnant women. However, there were several question items that midwives answered more incorrectly, namely the question of the importance of conducting pregnancy visits, namely to see the risk factors for mothers, indicated by a narrow pelvis, which resulted in pregnant women having difficulty giving birth normally. For this reason, efforts must be made to improve the quality of midwifery services so that they can provide high quality antenatal care to optimize health during pregnancy. The role of midwives in improving the quality of midwifery services is that midwives must recognize that they are in the main position to recommend and maintain quality and this can be done through good collaboration with coordinating midwives, leaders of puskesmas, fellow midwives, and other health workers. Midwives prepare case reports and discuss them with the team, midwives must agree that quality is an issue that will unite them with other professionals and midwives must learn to understand and work to produce quality and goals for the future. All of these things can be achieved by planning a midwife's career development through continuing education by attending seminars or workshops and continuing education to a higher level. Skills are technical or practical abilities in a field of work. The understanding of work skills is a totality of workers themselves both physically and mentally in dealing with their work. Physical skills are obtained from learning by improving skills at work. While mental understanding is defined as the ability to think work towards how a person is mature in dealing with existing work.

#### ***4.5. The Effect of Attitude on the Performance of Midwives in ANC Services***

The results showed that there was an effect of attitudes on the performance of midwives in ANC services in Puncak Jaya Regency Health Center (p-value 0.001), with the results of the prevalence ratio test interpreted that a negative attitude has a chance of performance in ANC services less 3.857 times greater than a positive attitude. The results of the study are in line with research conducted by Doloksaribu [13], there is a relationship between attitudes and the role of midwives in achieving ANC coverage. Midwives who had a positive attitude tended to play a good role in achieving K4 coverage, 1 time compared to midwives who had a negative attitude. Attitude is a person's readiness to act [14]. In addition, attitude is a mental and nervous state of readiness, which is regulated through experiences which provide a dynamic or directed influence on individual responses to all objects and situations related to it. Attitude is a reaction or response of someone who is still closed to a stimulus or object [15]. According to Lestari [16], attitude is a process of assessment by a person towards an object or situation that is accompanied by certain feelings and provides a basis for the person to respond or behave in a certain way he chooses. From the information above, it turns out that the attitude has character, the weakness of character greatly affects a person's behavior. A strong attitude possessed by a person to check himself (ANC) will bring real behavior in the implementation of ANC. Based on this explanation, the authors argue that the attitude of the midwife greatly influences the mother's ANC visit. This is due to the attitude of the midwife being able to encourage people to do something so that it reflects that attitudes will affect human behavior in doing something, and sometimes a strong attitude will form a character called a principle. People who have the principle of always living a healthy life will try their best and do whatever it takes for their health, especially for the fetus and pregnant women as part of their family and life, one of which is by having a good ANC visit. The

best attitude of a midwife is one that does not go out of the way of the code of ethics and health disciplines. In addition, the attitude of health workers must be accompanied by an attitude of patience, assertiveness, fast action, outgoing and so on. The attitude of the health workers is certainly accompanied by the color of the personality that is patterned by the personality of the health worker which is colored with character / character, both habit, and temperament that has been homeo stalin. The attitude of health workers must start from motivation and perceptions based on the profession. The influence of the midwife's attitude in ANC services needs attention from the Puskesmas management by paying attention to the midwife's satisfaction at work, because attitudes are formed from the satisfaction with the performance performed.

#### ***4.6. The Effect of Motivation on the Performance of Midwives in ANC Services***

The results showed that there was an effect of motivation on the performance of midwives in ANC services at the Puskesmas of Puncak Jaya Regency (p-value 0.011) with the results of the prevalence ratio test which interpreted that the low motivation of midwives to work in ANC services was 2.788 times greater than the motivation of midwives who high. The results of this study are in line with research conducted by Widyawati (2018) at Puskesmas Deleng Pokhisen and Puskesmas Mamas in Southeast Aceh Regency that there is a relationship between motivation and performance of midwives. Motivation is stimulation from the outside in the form of objects or non-objects that can stimulate people to own, enjoy, control, or achieve these objects / non-objects. The conformity of the results of this study with the theory and previous research occurs because midwives who have high motivation will encourage midwives to work more actively. Motivation can arise because of the needs of the midwife. This need in turn encourages the midwife to do something so that the needs that must be fulfilled are met. The existence of a positive relationship means that the higher the motivation of the midwife, the better the resulting performance in service [17]. Researchers can assume that motivation is a driving force for midwives in carrying out their duties to provide care for pregnant women, here we can see from the high willingness and ability to adapt to society and provide health services in accordance with their duties and functions so that in carrying out tasks optimally and patients They also want to make repeat visits to the puskesmas, and midwives are increasingly motivated in providing services for examining pregnant women to patients so that the performance of midwives is getting better and more satisfying. The lack of success in the coverage of K1 and K4 visits at Puskesmas in Puncak Jaya Regency is the less than optimal work performance of midwives and puskesmas management, where the professional duties of being a midwife become motivation, so that officers always provide time to provide information to the community about the importance of antenatal care. In addition, with the geographical conditions, each midwife who works at the puskesmas has a role and duty to foster the surrounding community.

#### ***4.7. The Effect of The Leadership of the head of PHC on the Performance of Midwives in ANC Services***

The results showed that there was no effect of the skill of the head of the Puskesmas on the performance of midwives in ANC services at Puskesmas Puncak Jaya Regency (p-value1,000). The results of this study are in line with Widyawati's (2018) research, that there is no effect of the skills of the Head of the Puskesmas on the performance of midwives. The leadership of the Head of the Puskesmas has understood and is able to carry out its main duties and functions in accordance with the established organizational work procedures. This is

reflected in the credibility, achievements and innovations that have been achieved in managing the implementation of puskesmas. In addition, the leadership must also reflect a visionary, democratic, transparent and innovative attitude. In carrying out their duties, midwives are responsible to their leaders, namely the Head of the Puskesmas. The head of the Puskesmas must also provide guidance to all midwives in their working area. In this case, it is hoped that the leadership can influence the midwife through a good communication process so that the midwife follows her decisions, because a leader may be considered effective and ineffective from the point of view of the satisfaction of his subordinates. But government acceptance or a leader's request lies in the expectations of his subordinates that a favorable response will produce interesting results. In this study, leadership is categorized as good, but there are still midwives who have less performance, this is likely because these midwives are less knowledgeable so they feel sufficient and satisfied with the services provided. According to Andriani [11], ANC management is the main task and responsibility of a midwife. Involving midwives in all decisions that affect them and their relationship to the work, duties and organization of the MCH will make them more responsible. The findings in the field also show that there are varying perceptions about involvement, for example most midwives feel that the institution or leadership in carrying out their activities always involves their employees, asks for suggestions, input and opinions, and does not hesitate to ask for ideas and thoughts from their employees, some say the opposite. The absence of a relationship is due to the greater influence of attitude and motivation on the skills of the Head of the Puskesmas in managing his subordinates. A dissatisfied midwife will affect their performance in ANC services. In addition, this is due to the fact that midwives with a service period of <5 years have a D3 Midwifery education, so they are able to perform well in ANC services in ANC services, so that the skills of the Head of Puskesmas are not meaningful.

#### ***4.8. The Effect of The Facilities and infrastructure on the Performance of Midwives in ANC Services***

The results showed that there was an effect of facilities and infrastructure on the performance of midwives in ANC services in the Puskesmas of Puncak Jaya Regency (p-value 0.008) with the results of the prevalence ratio test which interpreted that inadequate facilities had a chance of performance in ANC services less than 2.829 times greater than adequate facilities. The results of this study are in line with Widyawati's (2018) research, that there is an effect of facilities and infrastructure on the performance of midwives in ANC services [10]. Equipment for antenatal care measures in the field are MCH books and registers, stationery, spigmomanometer, stethoscope, scale, meter, LILA, doppler, gloves, clocks, gauze, jelly and SF drugs, calcium, vitamin C, vitamin B komplek. Inadequate facilities in ANC services such as monocular stethoscopes (Dopler), urine examination sets (protein, reduction) and bags and time cards for delivery as well as consumables. This affects the performance of midwives in ANC services. Because this concerns the implementation of the work done. This is in accordance with Aminah's opinion [18], that the environment and facilities or tools are supporting factors for carrying out an action or activity. The environment includes an examination room for pregnant women that meets health standards, namely the availability of clean water that meets the physical, chemical and bacteriological requirements, adequate lighting, adequate ventilation and guaranteed safety. Meanwhile, the facility is a tool or means to support the implementation of an action or activity, good and easy logistics management and complete and consistent recording and reporting. Puskesmas management needs to pay attention to the planning of existing facilities in ANC services, so that it does not hamper the implementation of midwives' performance. Another factor that causes underperformance is the availability of tools and equipment

for antenatal care according to standards. Provision of work facilities and tools directly affects the performance of everyone, the use of tools and advanced technology today is not only intended to improve performance, but is also seen to provide convenience and comfort to work. The availability and quality of facilities and infrastructure are generally good and meet the applicable SOP, however in some conditions additional health equipment and health service rooms are required, in terms of the number of patients visiting. The addition of equipment is intended to speed up the process of antenatal care (ANC) inspection services and there is a need for monitoring the physical condition of health equipment and provision of equipment backups as a precaution if medical equipment cannot be used suddenly. So that health services especially at the KIA Poly can continue to run well. Public Health Centers management needs to pay attention to the planning of existing facilities in ANC services, so that it does not hamper the implementation of midwives' performance.

#### ***4.9. The dominant factors on the Performance of Midwives in ANC Services***

The results showed that the dominant factors influencing the performance of midwives at the Puncak Jaya District Health Center in ANC services were attitudes, facilities and infrastructure. This research is in line with research conducted by Siregar [19] in the Work Area of the Pasar Ujung Batu Community Health Center, Padang Lawas Regency, which found that the dominant factors affecting the work of midwives are mainly attitudes and adequate facilities and infrastructure. The importance of the midwife's attitude in providing ANC services in Puncak Jaya Regency is due to the local culture those who work for ANC services, especially prenatal care, have a tradition / habit of visiting ANC services if they experience complaints and are constrained by geographic factors, so that a good attitude of midwives who can be a motivator and educator for pregnant women is very important, so that pregnant women feel safe and comfortable to do so. next visit inspection. In addition, the availability of adequate supporting facilities and infrastructure is very important in improving ANC services, facilities for ANC service activities include a midwife kit, a hemoglobin (Hb) check tool, physical examination tools, necessary medicines and other equipment. . The facilities or tools that a midwife has for ANC services are supporting tools at work, without the means that a person cannot do much in carrying out activities according to their function. Facilities for village midwives are a vital necessity, without facilities the village midwife cannot do much in carrying out their duties and functions as a village midwife, in addition to other additional facilities.

## **5. Conclusion**

On the basis of the findings of this research, it can be inferred as follows:

- a. There is an effect of age on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 0.046; RP = 2.200; CI95% (0.990 - 4.888);
- b. There is an effect of employee status on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 0.018; RP = 2.556; CI95% (1.395 - 4.682);
- c. There is an effect of tenure on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 0.004; RP = 3,215; CI 95% (1.463 - 7,006);
- d. There is no influence of knowledge on the performance of midwives in ANC services in Puncak Jaya



- Regency (p-value 0.479; RP = 1.457; CI95% (0.722-2942);
- e. There is an effect of attitudes on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 0.001; RP = 4.333; CI95% (1.521 - 12.344);
  - f. There is a motivational effect on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 0.011; RP = 2.788; CI95% (1.358 - 5.682);
  - g. There is no effect of the skill of the head of the Puskesmas on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 1,000; RP = 0.824; CI95% (0.324 - 2.099);
  - h. There is an effect of facilities and infrastructure on the performance of midwives in ANC services in Puncak Jaya Regency (p-value 0.008; RP = 2.829; CI95% (1.483 - 5.395);
  - i. The dominant factors that influence the performance of midwives in ANC services are attitudes, facilities and infrastructure.

## **6. Suggestion**

- a. For the Health Office of Puncak Jaya Regency: 1) Providing policies in regulating human resources for midwives with temporary employee status, with setting incentives that can improve performance in ANC services; 2) Prioritizing ASN appointment due to dedication and work experience in the field; 3) Providing trainings to midwives in improving ANC service management in increasing the coverage of ANC services; 4) Evaluating the health center facilities, so that services can run optimally.
- b. For Public Health Centers: 1) Perform HR planning and work organization that is carried out both inside the building and outside the building, 2) Conduct an inventory of facilities and infrastructure that are lacking or damaged to the Health Office in order to get replacement as well as new facilities and infrastructure, so that the examination results are better and increase patient satisfaction which will increase ANC service coverage
- c. For midwives: 1) Doing his job seriously considering the services provided have a major effect on the health of pregnant women and the fetus they are carrying for future generations 2) Conduct a joint evaluation of the problems faced by proposing problem solutions to make improvements in the future.
- d. Other Researchers: It is necessary to carry out a broader research in scope to determine the size of the midwife's performance problems and the use of other research methods such as compensation, so that more complete problems can be found regarding the achievement of midwife performance.

## **Acknowledgment**

We would like to extend our gratitude to the Public Health Centers in Puncak Jaya Regency for all the facilitation that has been made available to us to start the study. We would also like to express our appreciation to the study participants and data collectors.

## **References**

- [1]. Kementerian Kesehatan, RI. Profil Kesehatan Indonesia Tahun 2018. Jakarta: Kementerian Kesehatan RI, 2019.

- [2]. Kementerian Kesehatan, RI. Kesehatan dalam Kerangka Sustainable Development Goals (SDG'S). Jakarta: Kementerian Kesehatan RI; 2015.
- [3]. Wijono S. Kepemimpinan dalam Perspektif Organisasi. Jakarta: Kencana, 2018.
- [4]. Sugiyono. Metode Penelitian Administrasi. Bandung: Bina Pustaka, 2013.
- [5]. Lamere L. Analisis Kinerja Bidan Pada Pelayanan Antenatal care Di Puskesmas Sekabupaten Gowa. Jurusan Administrasi Dan Kebijakan Kesehatan Fakultas Kesehatan Masyarakat Universitas Hasanuddin Makassar. 2018.
- [6]. Adiputri A., Wijaya, PG., Karmaya, NM. Kompetensi, Kompensasi Finansial dan Supervisi Dengan Kinerja Bidan Desa di Kabupaten Bangli. Public Health and Preventive Medicine Archive (PHPMA) 2014, Volume 2, Number 1: 76-80
- [7]. Nisa K. Analisis Faktor yang Berhubungan dengan Kinerja Bidan dalam Memberikan Pelayanan Antenatal Berkualitas Di Wilayah Kerja Puskesmas Kota Bukittinggi Tahun 2018. Jurnal Ilmiah Universitas Batanghari Jambi *Volume 19, Nomor 1, Februari 2019*.
- [8]. Wahyuningsih S. *Faktor-faktor Yang Mempengaruhi Kepatuhan Bidan Terhadap Standar Pelayanan Antenatal di Kota Palembang*. JKK, Volume 5, No 2, April 2018: 96-107.
- [9]. Siagian S. P. Manajemen Abad 21. Jakarta: Bumi Aksara. 2012.
- [10]. Widyawati. Kinerja Bidan dalam Memberikan Pelayanan Antenatal care dan Faktor yang Mempengaruhi. Jurnal Kesehatan Masyarakat. Vol. 07, No. 01, Maret 2018..
- [11]. Andriani L. Motivasi dan beban kerja tentang kinerja bidan dalam pengisian buku KIA pada deteksi dini kehamilan risiko tinggi di puskesmas Kota Bukittinggi. Jurnal Riset Kebidanan Indonesia ISSN 2615-5621 Vol 4, No. 1, Juni 2020.
- [12]. Abu, ADKH. Hubungan Karakteristik Bidan Dengan Mutu Pelayanan Antenatal care Berdasarkan Standar Operasional. Jurnal Kesehatan Masyarakat Andalas. 2015.
- [13]. Doloksaribu SM. Faktor- Faktor Yang Berhubungan Dengan Kunjungan Antenatal care (ANC) di Praktek Mandiri Bidan Afriana Am. Kebbromo Ujung. Politeknik Kesehatan Kemenkes Ri Medan Jurusan Kebidanan Medan Prodi - DIV Kebidanan Tahun 2018. 2018.
- [14]. Prayoto. Teori, Sikap & Perilaku dalam Kesehatan dilengkapi contoh Kuesioner. Nuha Medika, Yogyakarta. 2014.
- [15]. Notoatmodjo S. Ilmu Kesehatan Masyarakat, Perilaku Ilmu dan Seni. Rineka Cipta Jakarta. 2014.
- [16]. Lestari, T. Kumpulan Teori Untuk Kajian Pustaka Penelitian Kesehatan. Yogyakarta: Nuha Medika. 2015.
- [17]. Kusmiyati. Perawatan Ibu Hamil. Fitramaya, Jakarta. 2009.
- [18]. Aminah S. Pengaruh Supervisi Bidan Koordinator Terhadap Standar Mutu Pelayanan *Antenatal care* Dengan Motivasi Kerja Sebagai Variabel Intervening Pada Bidan Di Wilayah Puskesmas Pagiyanten Kabupaten Tegal. Jurnal Magisma Vol. 6 No. 1, 2018.
- [19]. Siregar ED.. Analisis Faktor Yang Berhubungan Dengan Kinerja Bidan Desa Dalam Pelayanan Antenatal di Wilayah Kerja Puskesmas Pasar Ujung Batu Kabupaten Padang Lawas. 2015. Jurnal Ilimah Panmed. Vol 10. No. 3, Januari–April 2016.