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Evaluation of Antenatal Care Implementation by Midwives at the Public Health Centers in Paniai Regency, Papua Province

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Abstract

Background: The antenatal care (ANC) services in the working area of Puskemas in Paniai Regency are still less than optimal compared to the predetermined standards. This is due to the influence of the service system that includes input, process, output, supervision and feedback that are not optimal.

Research Objectives: To access the ANC service system that include of the input, process, output, supervision and feedback aspect at the Puskesmas in Paniai Regency, Papua Province. Research method: The research method used in this study was qualitative research using a case study approach. The study was conducted in April-May 2020 at five Public Health Centers in the work area of the Paniai Regency Health Department. A total of 11 informants were taken using a method of purposive sampling. The main methods of data collection are in-depth interviews and participatory observation. The data were qualitatively analyzed. Results: The overview of the input aspect: 1) Most health workers (midwives) in ANC services have not met the standards for the provision of the ANC services. There were still many midwives who did not have STR (Registration Certificate) as evidence of midwife competence. Many midwives also never attended ANC training to increase their competence.

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There were 2 midwives who has followed the training, but it was 10 years ago. In addition, the placement of midwives in all public health centers (Puskesmas) services were still unequal; 2) Funds, the availability of budgets for ANC services at Puskesmas in Paniai Regency cannot support the operational services needed; 3) Inadequate and incomplete facilities and infrastructure make it impossible to operate the service as expected. The existing Standard Operating Procedures (SOP) can not therefore be followed by ANC services. The overview of the process aspect: the service flow system did not comply with the integrated guidelines of the Ministry of Health. The ANC service process has not been carried out by midwives according to the standards. The overview in the output aspect: inadequacy of ANC services according to the predetermined targets could be due to poor input, including: not good service due to insufficient number of staff / midwives in the Puskesmas, lack of adequate facilities, such as UGS, laboratory and others. The overview in the supervision aspect: The head of the Puskesmas from each Puskesmas did not supervise properly; he did not perform a workshop to evaluate every activity that had been carried out by each program. The overview in the feedback aspect: Many pregnant women in the work area of the Puskesmas prefer to go to other health services such as hospitals or Puskesmas. This is a benchmark for Puskesmas, both in terms of input, service process, and output itself, to improve the service system.

Keywords: Evaluation; Implementation; ANC; Public Health Center; Paniai Regency.

1. Introduction

The level of public health in a country can be assessed using several indicators that reflect conditions of morbidity, mortality, nutritional status, human development index and life expectancy. Mortality indicators are described in the Maternal Mortality Rate (MMR), Infant Mortality Rate (IMR) and Infant Mortality Rate (IMR) [1]. Antenatal care (ANC) is a program consisting of health checks, observation and education for pregnant women in a structured and planned manner to obtain a safe and satisfying process of pregnancy and childbirth. ANC services are health services provided by health professionals to improve the health status of pregnant women and their fetuses. ANC that is carried out regularly and comprehensively can early detect abnormalities and risks that may arise during pregnancy, so that these abnormalities and risks can be treated quickly and precisely. The indicator used to describe the access of pregnant women to ANC services is K1 coverage (first visit), where K1 is the first contact of pregnant women with health personnel, and K4 (fourth visit) is 4 or more visits to health care workers in Public Health Center (Puskesmas, short for Pusat Kesehatan Masyarakat in Indonesian). ANC is considered to be of high quality if the ANC has met the standards set by the government, namely 10 T (weighting and measuring body height, measuring blood pressure, nutritional status (measuring upper arm circumference), measuring baseline height, determining fetal and fetal heart rate (FHR) presentation, screening for tetanus immunization status and administration of tetanus. The maternal mortality rate (MMR) is one of the development objectives. Efforts to reduce MMR (pregnancy, childbirth and postpartum) quality of ANC services are urgently needed in accordance with government policy standards, i.e. at least 4 times during pregnancy, 1 time in the first trimester, 1 time in the second trimester and 2 times in the third trimester [2]. Many factors that affect the coverage of K4 visits to Puskesmas, such as educational level, employment, awareness, attitudes, family support, affordability of health facilities and family income. A research by Orboi and his colleagues suggested that help from her husband to her wife may have an effect on the K4 pregnancy

visit [3]. Other studies by Erlina and his colleagues (2013) have shown that the factors affecting the low regularity of pregnant women during pregnancy visits are maternal attitudes [4], whereas Yewun and his colleagues (2018) found that age, tribe, support from the husband and marital status were factors that influenced the ANC visit [5]. The Indonesian Demographic and Health Survey (IDHS) 2017 show that the maternal mortality rate (MMR) in Indonesia is 305 per 100,000 live births. With such a trend, achieving the Sustainable Millennium Development Goal (SDG) target of reducing MMR by 225 per 100,000 live births will be difficult to achieve unless more intensive efforts are made to accelerate the rate of decline. The direct causes of maternal death were bleeding 30.3%, eclampsia 27.1%, infection 7.3%, prolonged labor 1.8%, and abortion 1.6%. While the indirect cause is related to the lack of regularity in the conduct of ANC visits, it cannot be detected early for referral and it is too late to decide to seek assistance from the nearest health service [6]. Monitoring of the program of health services for pregnant women is assessed using K1 and K4 coverage indicators. Nationally, the coverage in the Ministry of Health based on the results of the National Basic Health Research (Riskesdas) in 2018, the K1 coverage in 2013 was 81.3 per cent and increased to 86% in 2018. The K1 coverage of pregnant women did not reach the target of 95.26 per cent [7]. Data from the Provincial Health Office of Papua reported that K1 visits to pregnant women were 53% in 2013 and 73% in 2018, which did not meet the target [8]. Paniai Regency has 30 Puskesmas and 1 Regional General Hospital. Of the 30 existing Puskesmas, 18 Puskesmas were registered, 12 Puskesmas did not receive a Puskesmas registration number, only operating permits from the Paniai Regency Health Office. The condition of the facilities based on the data obtained in 2019, the number of medical doctors is 5 doctors, 281 nurses, 3 analysts, 30 public health professionals, 3 health workers, 4 nutrition workers, 58 midwives, 2 pharmacists and the rest are general staff [6]. The coverage of the ANC service in Paniai Regency over the last three years, namely: 2017 to 2019, is still very low compared to the standards set nationally across Indonesia. The results of the last 3 years were as follows: K1 coverage in 2017 was 43.6 per cent, 44.85 per cent in 2018 and 46.33 per cent in 2019. The K4 coverage was 30.00 per cent in 2017, 34.22 per cent in 2018 and 37.5 per cent in 2019 [9]. The maternal mortality rate in Paniai Regency continues to occur, namely in 2017, 19 per 100,000 live births, in 2018 13 per 100,000 live births, and in 2019 at 15 per 100,000 live births. The main causes of maternal death are bleeding, infection, prolonged labor, abortion. One of the efforts made by the Indonesian Ministry of Health to accelerate the decline in MMR is to bring midwifery services closer to every mother in need. In order to support health efforts and the achievement of development targets, it is necessary to have the right and reliable number, type and quality of health workers, in particular by accelerating the reduction of maternal mortality rates (MMR) and Infant Mortality Rate (IMR) [9]. Nowadays, the demand for quality of service in the community is increasing, demanding not only the technical capabilities of medical officers, but also the quality of services. Improving the quality of services focuses on basic health services with integrated efforts through health centers (Puskesmas), auxiliary health centers (Pustu) and midwives in the village. Standards and indicators are needed to assess the quality of service. There are four types of standards, namely (1) standard input comprising, among others, standards for human resources, equipment and facilities; (2) standard of process / standard of action for the determination of procedures for medical and non-medical services; (3) Standard output (performance) or commonly referred to performance standards based on a number of indicators, both in terms of service providers and users; (4) Environmental standards / organizational and management standards that outline policies, organizational patterns and management that must be followed by service providers. On the basis of a preliminary survey conducted by

researchers through interviews with 5 midwives and observations during the service at the Puskesmas, it was found that: a) All five midwives have a fairly large role in the health services of Puskesmas, not only do mother and child health (MCH) services as their main tasks, but also carry out additional tasks, such as treasurers; (b) All five midwives stated that there was a policy on working guidelines for Puskesmas, but the implementation did not comply with these guidelines; (c) All five midwives stated that the technical training for midwives was not evenly distributed in all Puskesmas; (d) Midwives more accumulated in certain Puskesmas only. On the basis of the problems identified in the preliminary study, the authors are motivated to carry out research on the assessment of the implementation of ANC services in the five Puskesmas in the work area of the Paniai Regency Health Office in Papua Province.

2. Materials and Methods

2.1. Type of Research

The research method used in this study was a qualitative study with a case study approach. This study was conducted in April-May 2020 at five Public Health Centers (Puskesmas) in the Health Department, Paniai Regency, Papua Province. A total of 11 (eleven) informants were taken using a purposive of sampling.

2.2. Ethical Research and Data Collection

The main methods of data collection are in-depth interviews and participatory observation. The interview guide was semi-structured, open, and in-depth. Interviews have been recorded and transcribed verbatim. Written consent was given to all participants. Confidentiality and anonymity are guaranteed. The data was qualitatively analyzed.

3. Result and Discussion

3.1. The Characteristics of Informants

Table 1 shows the number of key informants, 1 executive midwife and 4 midwives coordinators at the D3 level. On the basis of the working period, of the five main informants, there are 2 persons whose working period is less than 10 years, and 3 of them are more than 20 years. On the basis of gender, all of the five informants are female. Based on their positions, 4 midwives coordinators are responsible for coordinating and overseeing the implementation of midwives in the performance of their main duties and functions. The coordinator is responsible for all midwives in the work area, such as: midwives in Puskesmas, midwives working in pustu, and midwives in the village. One Executive Midwife is responsible for the implementation of ANC services in accordance with their main duties and functions.

An overview of the characteristics of informants in this study can be found in Table 1, and Table 2:

Table 1: The characteristics of the main informants

Initial Informant	Sex	Age (years old)	Position	Education	Length of work (years)
Iu1	Female	28	Midwives at the Obano Health Center	D3 Midwifery	4
Iu2	Female	44	Midwives at the Enarotali Health Center	D3 Midwifery	24
Iu3	Female	35	Midwives at the Bibida Puskesmas	D3 Midwifery	9
Iu4	Female	48	Midwives at the Pasir Putih Puskesmas	D3 Midwifery	24
Iu5	Female	37	Midwives at the Epouto Puskesmas	D3 Midwifery	9

(Source: Primary Data, 2020)

Table 2: The characteristics of the triangulation informants

Initial	Sex	Age	Position	Education	Length of
					work (years)
Informant		(years old)			
It1	Female	43	Person in charge of	S1 Midwifery	25
			Kesga/MCH Program		
It2	Male	66	Head of the Enarotali	S1 in Public	45
			Puskesmas	Health	
It3	Male	53	Head of the Obano Puskesmas	S1 in Nursing	37
It4	Male	46	Head of the Bibida Puskesmas	D3 Midwifery	17
It5	Female	44	Head of the Pasir Putih	D3 Midwifery	24
			Puskesmas		
It6	Male	40	Head of the Epouto Puskesmas	D3 Midwifery	17

(Source: Primary Data, 2020)

Table 2 shows the number of the triangulation informants, namely 5 heads of Puskesmas, and 1 official from Kesga/MCH. Out of 6 people, 1 person was not willing to be interviewed. The age group of informants was 30-40 years of age, 41-50 years of age and over 50 years of age, with 2 persons per group. Based on the level of education; D-3 as many as 3 people, Bachelor's degree (S1) as many as 3 people. On the basis of the working period, of the six informants, there are 2 persons with a working period of less than 20 years and 4 persons over 20 years. Based on gender; two females and four males.

3.2. The Input Component of ANC Services

3.2.1. Human Resources

Human Resources (HR) is a very important factor and cannot be separated from an organization, either an

institution or a company. In essence, human resources are used in an organization as a driving force for thinkers and planners to achieve organizational objectives. Based on the results of the interviews obtained the coverage of health human resources at Puskesmass in Paniai Regency, as seen in Table 3.

Table 3: The State of health human resources in 5 Puskesmas

No	Puskesmas	Number of Midwifes	Information
1	Obano	2	1 Honorary
2	Enarotali	11	5 Honorary
3	Epouto	1	1 is no longer active
4	Pasir Putih	3	2 Honorary and is no longer active
5	Bibida	3	2 is no longer active

(Source: Primary Data, 2020)

The results of in-depth interviews with midwives on the main informants in 5 Puskesmas, namely Obano, Enarotali, Epouto, Pasir Putih and Bibida, are given below.

"We have 2 people in this Obano Puskesmas." (Iu1)

"I am here as an honorary midwife executive, and already a civil servant.

. I am the coordinator of midwives (BIKOR). "(Iu2)

"We have 11 midwives at this Enarotali Puskesmas." (Iu3)

"There are 3 midwives, 2 are not active." (Iu4)

"We have 3 midwives, but so far I have been active myself." (Iu5)

On the basis of informant interviews with the Puskesmas, only one Puskesmas met or even more than the Standard, namely the Enarotali Puskesmas with 11 midwives and all active. In the meantime, the other four Puskesmas have not been met, even though they are still far from the minimum standard of labor requirements. The results of the interviews and the observations of the documents may conclude that there is still a problem with the implementation of health human resources / midwives. The distribution of human resources / midwives is not evenly distributed, there are Puskesmass with more midwives and there are Puskesmass with fewer midwives. Does the number of human resources (midwives) who can handle ANC services meet the standards?

"We have 2 midwives, one is still honorary. We could not serve properly, because we lacked manpower. We ask the health office to provide midwives so that we can get 1 or 2 midwives at the Obano Puskesmas, because our work area is large." (It1) "Enough / more personnel, there are 11 midwives." (It2)

"There are 3 midwives at the Pasir Putih Puskesmas, however 2 of us are still new, and not active. As a Bikor, I have only been in charge for 3 months, moved from another Regency." (It3)

"There were midwives, but they did not enter after changing the head of the health department. It's been 11 months of inactivity; I plan to contract a midwife from the Enarotali Puskesmas." (It4)

"There are 3 midwives at Bibida Puskesmas, all of whom are civil servants but 2 are not active, one is sick and 1 is studying." (It5)

"We have 3 midwives, but so far I have been active myself." (It6)

On the basis of the results of the above interview, it can be explained that of the five Puskesmas studied, only one Puskesmas met or more than the Standard, namely more than 4 midwives, namely 11 midwives and all active. Meanwhile, the other four Puskesmas have not been fulfilled, and there is even one Puskesmas, which had no midwife at all for 11 months after the change in the position of head of the Puskesmas, Midwifery service standards require midwives who have completed certification. Statement by the main informant on the existence of STR as stated below:

"No, we have not passed the Competency Test (UKOM) during the 4 times exam." (Iu1)

"Yes, but... we are 7 people with STR, 4 are new midwives who don't have STR, they have joined UKOM, but no one has passed." (Iu2)

"Yes, only one midwife with STR." (Iu3)

"Ooo yeah, only I have STR." (Iu4)

"I myself already have STR, the others don't have it, because they haven't passed UKOM." (Iu5)

Based on the above interview results, the informant stated that not all midwives already have STR. With 20 midwives in the five Puskesmas studied, only 9 midwives had STR and 11 other midwives did not have STR. The informant also said that he often participated more than four times in UKOM, but had never passed UKOM. This was also revealed by the triangulation informant regarding the certified labor standards as follows:

"Adooo, I am the head of the Puskesmas, but I don't know, because I didn't ask, so... later you will ask yourself." (It1)

"For STR, all of them must already have it, you can ask directly." (It2)

"For STR, only one midwife." (It3)

"The midwife has STR, but the service doesn't work." (It4)

"I don't know." (It5)

Based on the results of the interview above, it has been found that the majority of midwives did not have STR as a standard qualification for providing Puskesmas services. The midwife who doesn't have a STR is trying to get it. In general, however, the services provided are quite good.

ANC services follow the standards set by the Ministry of Health. The statement by the main informant concerning services in accordance with the ANC standards is as follows:

"No, if there is a pregnant woman, a midwife usually serves, but ... not according to standards..." (Iu1)

"Midwife services are carried out every working day, only supporting examinations are often not done, because the equipment is not available, if there are also often exhausted by other patients, because of our lack of condition, so often do not provide services according to SOP." (Iu2)

"No, many pregnant women go to the hospital and to the Enarotali Community Puskesmas, the midwife has STR, but the service doesn't work." (Iu3)

"All pregnant women were referred to the hospital and to the Enarotali Puskesmas." (Iu4)

"No, you have immediately seen our condition like this, everything is inadequate." (Iu5)

The results of the interview above show that in the provision of Puskemas services, it is claimed that they do not comply with the existing service standards set by the Ministry of Health. This is due to the lack of facilities that are owned so that some pregnant women carry out hospital examinations.

ANC services follow the standards set by the Ministry of Health as also stated by the triangulation informant, as stated in the following interview below:

"No, we do checkup services every week here, we serve pregnant women, but not according to ANC integrated standards, because other health workers are not at our Puskesmas in Obano, such as analysts, doctors, and less staff." (It3).).

"Yes, our services are carried out every working day, only supporting examinations are often not done, because the equipment is not available, if there are also often exhausted by other patients." (It2).

"No, we do not provide services according to standards, because only one active midwife, then the condition of the Puskesmas or facilities like this that you have seen by yourself." (It3).

"Existing health workers, only nurses." (It4)

"No, ANC services are not carried out here, because the Puskesmas was dismantled by people, so we use this room for services, and one more room is used for medicine storage." (It5)

"But..., if there are pregnant women, I check them in their respective homes." (It6)

Based on the results of the interview, informants also said that there was 1 Puskesmas that could perform ANC standards, but there were often problems in supporting examinations, because the consumables in the inspection often ran out of stock, and 4 other Puskesmass ANC services did not match the existing ANC service standards. The results of interviews and document data can be concluded that the lack of supporting tools / facilities in ANC services, so that the service does not comply with existing standards

In order to improve the quality of midwives, midwives are often included in the existing training provided by the Paniai Regency Health Office, as indicated in the following interview:

"No, I have never attended ANC training." (Iu1)

"I've attended training in ANC, but it's been a long time, so I forgot, around 2009." (Iu2)

"From the Regency health office." (Iu3)

"I have attended ANC training, but it's been a long time, so I forgot." (Iu4)

"I have never attended ANC training." (Iu5)

Based on the results of the interviews referred to above, most informants indicated that they had attended the ANC training session of the Paniai Regency Health Office. ANC training was conducted in 2009 or about 11 years ago to participate in the training, so the results they received were not consistent with current knowledge development, so midwives needed to learn more to adapt to current knowledge development, especially since most midwives still have DIII midwifery education. This is confirmed by the following head triangulation statement Training in ANC is important in order to improve the competence of midwives in public health services. The three heads of Puskesmas confirmed that ANC training was carried out for midwives who were within the scope of their duties as described above, even though they had forgotten the timing of the activity.

3.2.2. Funding sources

Funds are an important aspect of the implementation of every activity. Money is an element that can not be ignored, the size of the activity can be measured by the amount of money in circulation in the company, and therefore money is an important tool for achieving the objectives, because everything has to be calculated rationally. The availability of funds required for ANC services is the allocation of BOK funds. In addition to activities in the Puskesmas building, BOK can also be used for activities outside the building. The budget allocation is used for ANC services by midwives in the health centre.

Based on the results of the interviews on the budget allocation provided by the Government for continuous ANC

managers/services in the Puskesmas, as indicated in the following triangulation informant interview:

"Yes, I will give funds according to the amount of funds that go to the Puskesmas and I will give them according to the needs in the MCH room." (It1)

"I gave funds to Bikor according to the plan." (It2)

"I am the new head of the Puskesmas here at Pasir Putih, so I received the BPJS funds for sharing with the old Puskesmas head, while the BOK funds have not been there until now." (It3)

"I'm also only 3 months old, so I don't know yet." (It4)

"I'm also only 3 months old, so I don't know yet." (It5)

"Later, if there is, I will give the share for KIA." (It6)

Based on the results of the interview, it was concluded that the funds / budget provided to ANC services were not appropriate. There were 2 informants who stated that they had provided funds for ANC Budget services from the BOK, while 3 of them said that the funds would be provided when the funds were available. This indicates that the health budget is provided by the Health Office and will be distributed from the Health Office and reported to each section on the funding provided by the services or program person in charge, so that the funding is not recognized by the main informant or the implementing midwife as disclosed below:

"I don't know about the budget, because I never received it from the head of the Puskesmas." (Iu1)

"Yes, we accept, that there are BOK funds, around 10 million to 15 million for all activities in the MCH and Immunization Room, and we also use a little for ANC services." (Iu2)

"I'm just on duty, so I don't know, so far I have no money." (Iu3)

"Aduu, I don't know about the budget." (Iu4)

Based on the results of the interview, it was concluded that the funds / budget provided for the ANC services were only 1 information that indicated that they had received the budget from the BOK, while the other 4 did not know about the funds. The results of interviews and document data can be concluded that there is a lack of openness in budget issues for ANC services in all Puskesmas in Paniai Regency.

3.2.3. Facilities and Infrastructure

In order to support health workers in Puskesmas, in this case ANC services in Puskesmas, provision of facilities and infrastructure is needed. The informant's statement on the means of support for ANC services is quoted from the following interview:

"We have tools that are not complete, and the ones that are there are already damaged." (Iu1)

"We feel cramped, because this room is small, not enough, so if you want to have ANC service, the rest of us will go out." (Iu2)

"We should have tools such as blood pressure, baby scales, HB testing kits, etc. However, they are none. We borrow other tools at the doctor's room." (Iu3)

"Tools and facilities for ANC services are very lacking." (Iu4)

"We don't have the equipment, we have this building, and you saw that we are using residential houses." (Iu5)

On the basis of the informants mentioned above, it can be explained that 4 informants indicated that the facilities and infrastructure were inadequate. They also say that the tools have been damaged for a long time, so that the tools for their services have been borrowed from another room. The informants also said that they had already forwarded this to the head of the Puskesmas, but there has never been a realization / answer to date. This is also demonstrated by the triangulation of information as disclosed in the following interview results:

"Incomplete facilities and infrastructure." (It1)

"The facilities are complete, but there are indeed missing facilities such as inadequate support tools in service, in this case we are working on it." (It2)

"Incomplete facilities / facilities." (It3)

"Incomplete tools / facilities, especially the new Puskesmas building." (It4)

Based on the results of the interview above, it can be concluded that the head of the Puskesmas has confirmed the delivery of the main informant (midwife), namely facilities or infrastructure to support the performance of health services, in this case ANC services in Puskesmas, have not yet been completed and have been forwarded to the Regency Health Office.

3.3. The Process Component of ANC services

The process is a flow system for the implementation of ANC services performed by Puskesmas in Paniai Regency. The ANC system is not consistent with the flow of services in the integrated ANC manual of the Ministry of Health.

The following statements are provided by the MCH program holder, namely:

"We don't use the integrated ANC system of the Ministry of Health. Pregnant women do not register at the counter/medical recap; they go directly to the KIA room. We are also give medicine right away, if there is no medicine, we just tell it to go home. In the afternoon or the next day, if there is medicine from the health office,

we will go straight to bring the medicine to the mother's house." (It1).

The following is the statement of the head of the Obano Puskesmas:

"Here, pregnant women who come directly to the KIA room, midwives will check their pregnancy directly. The midwife will also give the medicine right away, because we give the medicine directly to the midwife, because we are lacking health workers here. Then, the midwife will also help the delivery to the patient's house." (It3) On the basis of the observations, the integrated ANC examination sequence carried out by the Ministry of Health did not follow the Puskesmas, namely with mothers who did not register at the counter, did not carry out laboratory tests, went directly to the KIA room, and were immediately given drugs without going through the pharmacy to take the medicine. Besides mothers coming to visit Puskesmas, midwives can also visit mothers in their homes and interact directly with families, which can convey how important it is to have their pregnancy checked early and regularly, as stated below:

"We also conduct home visits to mothers who do not want to check their pregnancy and even those who frequently come, we provide information about high risks and safe childbirth." (Iu1)

However, after conducting a document review, it was found that there were no data on the home visit reports carried out by the Puskesmas.

The following is the statement of the head of the Enarotali Puskesmas:

"Here, pregnant women who come directly to the counter take the card, then go to the KIA room, the midwife immediately takes anamneses and checks her pregnancy, then we give a prescription/note to take medicine. If there are pregnant women who are sick, we immediately ask the doctor. Then for the delivery, if the mother calls us, the midwife will help the patient's house." (It2)

A similar statement was also given by the holder of the KIA program at the Enarotali Puskesmas, namely:

"The pregnant women who come directly to the counter take the card, then go to the KIA room, go straight to the anamneses midwife and check their pregnancy. Then we gave a prescription/note to take the medicine, and if a pregnant woman was sick, we immediately asked the doctor. If we don't have the ultrasound, we also have a laboratory, but it doesn't work anymore, so usually their mothers go to the hospital themselves. Last year, there was an USG, but it doesn't exist anymore, because GSI is no longer running. Sometimes, midwives provide delivery at the patient's home. There are also pregnant women who go straight to the hospital." (Iu2)

The following is the statement of the head of the Pasir Putih Puskesmas

"Me and the midwife in charge, we were here just before, so the ANC service process was like this: pregnant women who come directly to the KIA room, the midwife checks her pregnancy directly, the medicine is also the midwife who is given. We give the midwifery-related medicines directly to the midwife, because we lack health workers here. Many pregnant women go to the Enarotali Puskesmas, and fewer go to the hospital. Sometimes,

during the delivery, the midwife will go to the patient's house." (It5)

A similar statement was also given by the MCH program holder, namely:

"I have been here for several months now, there are no pregnant women, but today there are 3 pregnant women who come. If the integrated ANC system of the Ministry of Health is available, but we do not use it. Pregnant women do not register at the counter/medical recap; they go directly to KIA room. We have just prepared a room specifically for drug counters, so starting this month, we have told the mothers to take medicine at the drug counter." (Iu4) An informant (pregnant woman) who had her pregnancy checked at Puskesmas, said that the Puskesmas service had taken a long time at the card pick-up counter and the medicine counter. Below is a statement made by the informant concerning the ANC process at the Enarotali Health Centre. "I just checked, it was also a midwife who called me, so I don't think there is a midwife, because it has been 4 years that there has been no midwife, now some have just finished school too. But here, there are no tools that we usually check like other Puskesmass, so pregnant women; we all want to go to the hospital. Many pregnant women come to the hospital; they don't want to be here. But I think, instead of going all the way, its better just here... it will be good after a long time, because these officers are new." On the basis of observations, the integrated antenatal-care examination sequence made by the Ministry of Health can not be followed, i.e. with mothers who do not register at the counter, do not carry out laboratory tests, go directly to the KIA room, and they are given drugs immediately without passing pharmacies for taking the medicine. Aside of mothers coming to the Puskesmas to visit/control their pregnancy, midwives can also visit mothers at home, interact directly with families, and communicate how important it is to have their pregnancy checked early and regularly, as stated in the program. "We also make home visits to mothers who do not want to check their pregnancy, and even those who frequently come, we provide information about high risks and safe childbirth." (Iu2) However, after conducting a document review, it was found that there was no data regarding home visit reports that had been made by the Puskesmas.

The following is the statement of the head of the Epouto Puskesmas:

"After I was placed here 6 months ago until now, there are only 3 nurses and no midwife. I plan to contract a midwife from the Enarotali Puskesmas to help with ANC services here. I feel sorry for my community; in this case pregnant women go to other Puskesmass or to the hospital." (It6)

Based on the observations, it has been noted that the sequence of integrated ANC services provided by the Ministry of Health can not be followed by Puskesmas. These sequences are: mothers registering at the counter, carrying out laboratory tests, entering the KIA room and going to the pharmacy to collect their medicines, after which pregnant women go home.

The following is the statement of the head of Bibida Puskesmas:

"Oooooo ..., we don't provide health services for pregnant women here, because we only have 2 rooms in this building, so we put torches and tools in that small room, while we use the one room as an open space only. Often, the midwife usually goes to the house of pregnant women, and then provides delivery services at the

house of pregnant women." (It4)

A similar statement was also given by the MCH program holder:

"Yes, that's right, we don't use the integrated ANC service system of the Ministry of Health. This is because of the condition of our Puskesmas building. Pregnancy checks are often done at the house of pregnant women, if I offer it and the mother wants it. Pregnant women usually go to the hospital, because the hospital is also close." (Iu3)

Based on the observations, the integrated sequence of ANC services provided by the Ministry of Health did not work at the Bibida Health Centre. This is because the conditions of the facilities/rooms are not available, but it is done at home if the pregnant woman is willing to do so.

3.4. The Output Component of ANC Service

Output is a collection of parts or elements resulting from the system process (Azwar, 2010). The output to be discussed in this study is the extent to which ANC is implemented. Below are the results of the visit of pregnant women to five Puskesmass, namely Obano, Enarotali, Pasir Putih, Epouto and Bibida Puskesmas in Paniai Regency. The target data for the visit of pregnant women to 5 Puskesmass in Paniai Regency are as follows:

- a. At the Obano Puskesmas, it reached below the target, namely, 28.27% (175) visits from 619 in 2019 and there was a decrease, namely this year in the last 6 months 12.89% (48 pregnant women). Data obtained from ANC services only reached 28.27% of the 619 targeted mothers.
- b. At the Enarotali Puskesmas, it reached below the target, namely, 57.29% (430) visits from 754 in 2019 and there was a decrease, namely this year in the last 6 months 49.40% (371 pregnant women). The data obtained from ANC services only reached 49.40% of the 754 targeted mothers.
- c. At the Pasir Putih Puskesmas, ANC services were not found, from the target of 602 pregnant women.
- d. At the Epouto Puskesmas, ANC services were not found, from the target of 534 pregnant women.
- e. At Bibida Puskesmas, there is no ANC service found.

3.5. Supervision

Supervision is very important in running a program. With supervision, it can be ascertained whether the program can run as planned. The head of the Puskesmas supervises the work of the employees in the morning, and every Sunday the Puskesmas organizes a workshop after the service hours have been completed, which aims to evaluate every activity that has been carried out.

Statement by the Head of the Enarotali Health Centre, on the supervision carried out by the Enarotali Puskesmas for the implementation of the ANC program:

"Yes, I used to do surveillance to every room, but I didn't enter the room, just outside, I did it from 08 to 10 during working hours. After that I returned to my room. I also usually do monthly mini workshops (Lokbul)

every Friday after the service, to evaluate each activity in their respective programs."(It2)

The MCH program holder explains the supervision of the head of the Puskesmas:

"As for daily supervision, the head of the Puskesmas is just looking around, but we usually have lokbul, once a week, so if there are complaints at the service, they are discussed there." (Iu2)

Statement by the Head of Obano Puskesmas on the supervision of the implementation of the Antennatal Care Program at Obano Puskesmas:

"Yes, I used to do surveillance to every room, but I didn't enter the room, I was just outside. I do this from 09 to 10 during work hours. I also usually make mini workshops (minilok) every month to evaluate each activity in each program." (It3)

The same thing was explained by the MCH program holder, regarding the supervision of the head of the Obano Puskesmas:

"As for daily supervision, the head of the Puskesmas (Kapus) is just looking around, but we usually have a lokbul, once a month, so if there are complaints at the service, they are discussed there." (Iu1)

Statement of the head of the Pasir Putih Puskesmas regarding the supervision carried out on the implementation of the ANC program at the Pasir Putih Puskesmas:

"Yes, I used to do surveillance to every room, but I didn't enter the room, only outside. I do that from 08 to 10 at work hours." (It5)

The MCH program holder explains the supervision of the head of the Pasir Putih Puskesmas:

"For daily supervision, Kapus is just looking around." (Iu4)

Statement from the head of the Epouto Puskesmas regarding the supervision carried out on the implementation of the ANC program at the Epouto Puskesmas:

"Yes, I haven't conducted supervision at the moment, because we only have 4 people, so I am busy in health services." (It6)

Based on the results of interviews and observations conducted by researchers, it shows that the ANC supervision carried out at the Puskesmas is less effective. It can be seen that the ANC services are not running optimally, and also because the lack of facilities and infrastructure. This shows that the leadership exercised under supervision by the leader in planning does not function properly.

3.6. Feedback

Providing feedback is absolutely necessary by a system, because it will help the Puskesmas to evaluate and improve the current system, so that it becomes better. To get feedback from patients who have received services at the Puskesmas, the Obano Puskesmas feels that there are some who are not satisfied with our services, so that there are already fewer visitors to the Puskesmas, many of which go to other health services. This can be discussed in the public health center workshop, in order to evaluate and improve the current system so that it will be better.

The results of interviews with the main informant are as stated below:

"Many pregnant women / patients go to the Enarotali Puskesmas and go to the hospital." (Iu1) "I asked each program holder if there was a problem? if yes, we can solve together, if it can't be resolved here, I am the head of the Puskesmas, I immediately take it to the head of the Regency health office." (Iu2) "I have done what I did, if there is a problem, I report it to my boss, which is when we have a meeting." (Iu3) "Many pregnant women / patients go to the Enarotali Puskesmas and go to the hospital. I think it's okay for the patient, because our facilities and personnel are limited." (Iu4) "All patients / pregnant women to the Enarotali Puskesmas and to the hospital." (Iu5) Based on the results of the interviews, it can be concluded that most of the five Puskesmas studied did not run as they should. This is due to the lack of facilities and infrastructure, tools and health professionals. Each Puskesmas gives feedback through mini workshops, both weekly and monthly. However, the majority of decisions cannot be taken due to lack of support facilities and a lack of human health resources.

4. Discussion

4.1. The Input Component of ANC Service

In PMK No. 75 of 2014 article 9 paragraphs 4, it says that the establishment of a health center must meet the requirements for location, building, infrastructure, health equipment, personnel, pharmacy and laboratory. Input is an element contained in a system [10]. If an input is not provided properly, it will obstruct a process and can hinder a system from achieving its goals. Likewise in this study, in running ANC services, a Puskesmas must provide input properly. Inputs in this case include human resources, facilities, sources of funds, as well as policies, and SOPs.

4.1.1. Human Resources

According to M.T.E. Harindja [11], human resources are one of the important factors that play a role in the implementation of ANC services. Based on the results of interviews and document review that have been carried out, it is known that the number of human resources available in the KIA room at the Puskesmas, that 1 Puskesmas has 11 midwives; 3 Puskesmas, 1 midwife each, and 1 Puskesmas without a midwife. Each Puskesmas is responsible for providing several services, including services outside the building, inside the building, and delivery services. From the number and tasks they have, the information obtained during the interview, the informant said that the resources at the Puskesmas are still lacking and it is necessary to increase and distribute human resources in the KIA room at the Puskesmas. The high number and types of work that must be carried out with human resources with insufficient numbers will result in a high workload for officers,

and then the high workload owned by officers will affect the performance of these officers. As mentioned by Hurrel in Munandar, that the workload of officers that is too heavy can cause work stress [12]. If you experience work stress, of course you cannot carry out ANC activities properly, so that it will have an impact on patients. The number of midwives at 5 Puskesmas in Paniai Regency is: 2 midwives in Obano, 11 midwives in Enarotali, 1 midwife in Pasir Putih, 1 midwife in Bibida, and no midwife in Epouto. At least one health centre that meets the criteria and four other Puskesmas do not.

4.1.2. Facilities and Infrastructures

Facilities and infrastructure are one of the supports for someone in carrying out their duties. One of the important components in carrying out health development is health facilities and infrastructure that are capable of supporting various health services, both individual and institutional level health care efforts. The completeness of the facilities is a factor that must be met by every health service provider. With the complete range of facilities that will be used in providing a service, health services will be maximally provided. Buchari in Ermiati and Sembering (2012), states that facilities are physical equipment to provide convenience to users, so that the needs of the users of these facilities can be met [13]. A research done by Wanma and his colleagues shows that there is a relationship of facilities with the performance of midwives in the service of ANC in Wania District Health Center, Mimika Regency (p-value=0,012) [14]. Inadequate facilities weaken the performance of midwives in ANC service. Each Puskemas has one ANC service room, namely the Maternal and Child Health (KIA) room, with room sizes that do not meet service standards. Based on the observations during the interview that there were problems in services, both in terms of human resources itself, they were still lacking, and the facilities were inadequate and completely non-existent. The existing equipment has been damaged for a long time, so it cannot be used, so we borrowed it from another room during service. In the end, many pregnant women prefer to go to another hospital/Puskesmas.

4.1.3. Funding Sources

The source of funds is one of the factors that support the implementation of a process. The process will run as you wish, if it is fully supported in terms of financing. Likewise with ANC services, services will run well, if the implementation of these services is supported by adequate funding. Based on the results of the interview, it was found that there were problems for the Puskesmas in Paniai Regency regarding the financing in implementing ANC. This is due to the absence of transparent funds from superiors to staff. Based on Law No. 36 of 2009 in chapter XV and article 170 where the source of funding comes from the government. Funding that comes from the government is the APBN, while what comes from local governments is often referred to as the APBD. Puskesmas also receive financing from community-owned health insurance such as BPJS. The use of this health insurance is regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 28 of 2014 concerning guidelines for implementing the national health insurance program.

4.1.4. Policies and SOPs

Policy is a decision or step taken by an organization to achieve the desired goals and with the fulfillment of the

elements of input properly, it will greatly assist the running of a process to achieve the planned output. Based on the results of interviews at each Puskesmas, it shows that an SOP has been made by the Paniai Regency Health Office, but it is not used because the Puskesmas is an obstacle with inadequate human resources, inadequate facilities, and unclear budget. Having a Standard Operating Procedure (SOP), it will be able to provide services in accordance with standard operational procedures. With the good quality of service provided to patients, it will create a sense of satisfaction for patients regarding the services provided.

4.2. The Process Component of ANC Services

A process is a collection of parts or elements contained in the system that functions to convert input into planned output [10]. Based on the observations and interviews with the Puskesmas, it was found that the process or flow of service implementation at the Obano, Enarotali, Pasir Putih, Epouto and Bibida Puskesmass in Paniai Regency in the integrated ANC flow in 2010 made by the Ministry of Health had not been implemented properly. The results of an interview with a pregnant woman who had her pregnancy checked at the Paniai Regency Health Center, said that just a quick check, because from the house directly to the KIA room, the midwife was also examined directly, so it was not difficult, but in the examination room, it took a while because midwives are very lacking, and the problem was that there were no complete facilities such as laboratories, etc.

4.3. The Output Component of ANC Services

The output referred to in this study is data on the coverage of ANC at Obano Puskesmas, Enarotali Puskesmas, Pasir Putih Puskesmas, Epouto Puskesmas, and Bibida Puskesmas in Paniai Regency. Based on the data obtained, it was known that the results of the visits of pregnant women at the Obano Puskesmas reached below the target, namely, 28.27% (175) visits from 619 in 2019 and there was a decrease, namely this year in the last 6 months 7,75% (48 pregnant woman). Data obtained from ANC services only reached 28.27% of the 619 targeted [15]. Enarotali Puskesmas reaching below the target, namely, 57.029% (430) visits from 754 target in 2019 and there was a decrease, namely this year in the last 6 months 49.73% (371 pregnant women). Data obtained ANC services only reached 49.40% out of 754 targeted [16]. At the Pasir Putih Puskesmas, there was no ANC service (0%) from the target of 602 pregnant women in 2019 and 2020. At the Epouto Puskesmas, ANC service was not implemented (0%) from the target of 534 pregnant women in 2019 and 2020. At the Bibida Puskesmas, ANC services was not implemented, either. The achievement of ANC service coverage is still very far from the target desired by the government. The government is targeting the achievement of ANC services every year to continue to increase, but the achievements in five Puskesmas in Paniai Regency have decreased in 2019 and 2020 in the last few months. The good achievement of output cannot be separated from the input itself, and vice versa, if the input that is owned is also not good, then the resulting output is not good either. The results of this study indicate that ANC is not achieved in accordance with the targets that have been set, it can be due to insufficient input, namely: lack of facilities and infrastructure, services are not in accordance with Standard Operating Procedures due to the lack of human resources at the Puskesmas. Thus, patients are not satisfied with the services provided by the Puskesmas, because the services have not been running effectively. The Puskesmas need to be aware that the lack of optimal service is because there are deficiencies that need to be addressed and be able to fix them.

4.4. Supervision

Based on the research results, it is necessary to recognize that the head of the Puskesmas supervises the work of employees every working day. There are Puskesmass that carry out lokbul after the service is completed, namely the Enarotali Puskesmas, which aims to evaluate every activity that has been carried out. The coverage of ANC services at the public health center in Paniai Regency is still lacking, so it is appropriate for the heads of Puskesmas to provide more supervision and attention to the implementation of ANC services with the aim that all pregnant women in the working area of Puskesmas, can get maximum service. A study done by Abebe and his colleagues indicated that even though majority of pregnant women were satisfied, the overall quality of ANC service was poor which may be explained by shortage of reagents and drugs, absences of guidelines, absence of trainings, absence of incentives, absence of regular supervision, inadequate information for mothers and absence of privacy [17].

4.5. Feedback

Providing feedback is absolutely necessary for a system, because it will help Puskesmas to evaluate and improve the current system for the better. Feedback can be obtained from patients who have received services at the Puskesmas. Midwifes at the Obano Puskesmas feels that there are many people who are not satisfied with our services, so that there are fewer visitors to the Puskesmas. Many of them go to other health services. This can be discussed in the public health center workshop, in order to evaluate and improve the current system to make it better. The results of interviews and document observations, it can be concluded that the fulfillment of human resources for health/midwives is still a problem, namely the distribution of human resources / midwives is not evenly distributed. There are Puskesmas with more midwives and other Puskesmas with fewer midwives. Facilities and infrastructure are also inadequate, so the level of service is not optimal. In the end, patients will seek better health services. Effective feedback system is vital for any organization to keep up with changing needs with time and improve hospital and other health centers quality [18]. It is especially important for the ones with significant public interface as it helps in grasping the pulse of public opinion. Feedback system involves receiving the inputs, bringing in changes and then assessing the impact through the inputs received from the same system. Direct patient feedback is also the core method for measuring patient experience [19]. In essence, a good feedback system should be a lively, dynamic and interactive that can connect all the stakeholders and engage them in a sustainable loop of seamless information flow.

5. Conclusion

Based on the research results, it can be concluded that:

a. The overview in the input aspect: 1) Most of the health workers in ANC services (midwives) have not met the standards for providing ANC services. There were still many midwives who do not have STR (Registration Certificate) as evidence of midwife competence. The midwives have also never attended ANC training in increasing their competence, there were 2 midwives who have followed the training, but it was 10 years ago. The placement of midwives in all Puskesmas services were unequally

- distributed; 2) Funds, the availability of budgets for ANC services at Puskesmas in Paniai Regency cannot support the operational services needed; 3) Due to, inadequate and incomplete facilities and infrastructure, made the service was not run as expected. The Puskesmas did not follow the existing Standard Operating Procedures (SOP) for ANC service.
- b. An overview in the process aspect: the service flow system was not in accordance with the integrated guidelines of the Ministry of Health. The ANC service process was not carried out according to standards by midwives.
- c. The overview in the output aspect: The inadequacy of ANC services according to the predetermined targets could be due to poor input, including: not good service due to insufficient number of staff / midwives in Puskesmas, lack of adequate facilities, such as UGS, laboratory and others.
- d. The overview in the supervision aspect: The head of the Puskesmas from each Puskesmas did not supervise properly; he did not perform a workshop to evaluate every activity that had been carried out by each program.
- e. The overview in the feedback aspect: Many pregnant women in the work area of the Puskesmas prefer to go to other health services such as hospitals or other Puskesmas. This is a benchmark for Puskesmas, both in terms of input, service process, and output itself, to improve the service system.

6. Suggestion

There are a number of suggestions regarding the finding of this research:

- a. To the Paniai Regency Health Department: 1) The management should do a regular control by conducting supervision to the Puskesmas. The goal is to be able to pay more attention to the implementation of ANC services in each Puskesmas. More frequently, there is a review of existing implementation in each Puskesmas, not only when the Puskesmas is experiencing problems. There needs to be an equal distribution of human resources that can be applied at the Puskesmas level; 2) To provide training in ANC services with the latest standards, because the ANC training received by midwives has been taken too long; 3) Completing existing infrastructure and provide enough budget at Puskesmas to support ANC services.
- b. To the Puskesmas in Paniai Regency: 1) Oversight of the MCH program at the Puskesmas should be continuously improved, in order to control the running of ANC services. Monitor / supervise the implementation of the SOP for ANC; 2) Complementing ANC service support tools, starting from human resources, facilities and infrastructure, and need to be transparent about budget issues in Puskesmas, and more specifically for maternal and child health services (KIA); 3) Conducting evaluation after providing ANC services, and always following the latest developments in science and technology.

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