Maternal Antenatal Care Analysis by Health Services Utilization in Working Area of Cot Girek Community Health Centre

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Abstract
This research sought to figure out and examine the impacts of experience, perceptions, educational attainment, financial support of the Cot Girek Community Health Centre's distance, and health services proximity on the number of people who used medical services in the region. For the quantitative analysis, Quantitative research was conducted using a mixed approach. The study revealed a significant difference in all three aspects: among those who possess more expertise was increased use of health care, and a statistical ties to all of income. Although perceptions, distance to medical facilities, and women's well-being didn't seem to be correlated, the use of medical assistance for pregnant women was negatively impacted by the amount of women's health issues they had. In this study has discovered the impact of awareness, schooling, wages, and assistance on health care utilization; mindset, distance, however, has not found to be a relationship to health service utilization. This study will help health-care professionals become more engaged in fostering a greater involvement in prenatal services.

Introduction
The period of pregnancy starts from conception until the birth of the fetus. The duration of normal pregnancy is 280 days (40 weeks or 9 months 7 days) calculated from the first day of the last menstruation. Pregnancy is divided into 3 quarters, namely the first quarter starting from conception up to 3 months, the second quarter from the fourth month to 6 months, the third quarter from the seventh month to 9 months (Saifuddin, 2002). Pregnancy begins with the meeting of the egg and sperm (conception) until childbirth. The gestation period lasts for 36-40 weeks (Cedli, L2012).

Antenatal care is a pregnancy examination to see and check the state of the mother and fetus that is carried out periodically followed by correction efforts against irregularities found during pregnancy (Yulifah & Yuswanto, 2009).

Antenatal services are health services provided to mothers during their pregnancy in accordance with antenatal service standards (Hutahaean, 2013).

Maternal and Infant health problems are national problems that need to be prioritized, because it determines the quality of Human Resources (HR) in future generations. According to Ministry of Health Regulation RI No. 43 of 2016 every pregnant woman should get antenatal services according to standards. Standard service is a service provided to pregnant women at least 4 times during her pregnancy (Ryadi, 2016). Pregnant women usually come to the health
officer at the beginning of pregnancy to confirm their pregnancy, but do not make subsequent
visits because the mother feels no complaints about her pregnancy.

Based on Indonesia Health Profile data (2017) coverage of the first pregnant women visit (K4)
in Indonesia, Aceh Province is included in the 13 lowest K4 coverage figures in Indonesia,
namely (79.1) from 34 provinces in Indonesia. The highest K4 coverage is in the Province of
DKI Jakarta Islands (114.37%), while the lowest is the Province of West Papua (23.19%)
(Indonesia PK, 2018).

According to World Health Organization (WHO) data in 2013 the highest maternal mortality
rate (AKI) is found in the West African region of Sierra Leone at 1,100 per 100,000 live births
and the lowest in the European region is Belarus at 1 per 100,000 live births. As for developing
countries such as Indonesia (190/100,000 live births), Malaysia (29/100,000 live births), and
Myanmar (200/100,000 live births), AKI is still very high figures when compared to developed
countries such as Australia (6/100,000 live births), Italy (4/100,000 live births), and Singapore
(6/100,000 live births) (World Health Organization, 2015).

AKI's decline in Indonesia occurred from 1991 to 2007, from 390 to 228. However, based on
data from the Indonesian Demographic and Health Survey (SDKI) (2012) shows a significant
increase in AKI to 359 cases of maternal death per 100,000 live births. AKI again showed a
decrease to 305 maternal deaths per 100,000 live births based on the results of the 2015 Inter-
Census Population Survey (SUPAS).

One of the efforts to accelerate the decline in Maternal Mortality (AKI) and Infant Mortality
(AKB) basically refers to the strategic intervention of the Four Pillars of Safe Motherhood
where one of its pillars is Antenatal Care. Antenatal care is prenatal care primarily aimed at
the growth and development of the fetus in the womb (Walyani & Purwoastuti, 2015).

Every pregnant woman will face risks that can threaten her life. Therefore, every pregnant
woman needs care during her pregnancy (antenatal care). The purpose of conducting antenatal
care services is to obtain information about the health of the mother and fetus, early enforce
the disease accompanying pregnancy, establish early pregnancy complications, determine the
risk of pregnancy, and prepare for labor so that the birth can run normally and the baby can be
born healthy (Salmah & Maryanah, 2006).

Methods

The type of research used is mixed method research, which is a research method that combines
or combines quantitative and qualitative methods. The method used is a sequential model using
an explanatory approach, namely data and quantitative analysis in the first stage, followed by
data collection for qualitative data analysis in the second stage. The research design used was
cross sectional, which is a type that emphasizes the time of measuring or observing data one
time at a time. This research was conducted in the working area of the Cot Girek Health Center,
Cot Girek District, North Aceh Regency. When the study was conducted from February to
October 2019. The population in this study were all pregnant women who carried out antenatal
care examinations in the working area of the Cot Girek Community Health Center, Cot Girek
Sub-district, North Aceh Regency, as many as 512 people. The quantitative sampling technique
used the Slovin formula and obtained 83 people. Data analysis used in this study was univariate,
bivariate and multivariate analysis. Then the data was presented in the form of distribution
tables.

Result and Discussion

Univariate Analysis

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Based on the results of the research conducted, it was found that the majority of respondents in the working area of Community Health Center Cot Girek were 48 people (57.8%) aged ≤35 years, and as many as 35 (42.2%) respondents were >35 years old. The majority of respondents’ education was low, namely 38 respondents (45.8%), 36 respondents (43.4%) had moderate education, and as many as 9 respondents (10.8%) had higher education. The majority of parity with multipara were 64 respondents (77.1%), and as many as 19 respondents (22.9%) were primiparous. The majority of lack of knowledge, namely as many as 43 (51.8%) of respondents, and as many as 40 (48.2%) of respondents had good knowledge. The majority of respondents’ attitudes were good, namely as many as 65 people (78.3%) and 18 (21.7%) respondents had poor attitudes. The majority have low income, namely 37 (44.6%) respondents and as many as 46 (55.6%) respondents have low incomes. The majority answered that health workers’ support was lacking, namely 45 (54.2%) respondents, and 38 (45.8%) respondents answered that health workers were good. The majority of health services were far away as many as 55 people (66.3%). The majority of maternal health is good as many as 48 people (57.8%). The majority of ANC service users were in the less category as many as 44 people (53%).

Table 1. Frequency Distribution of Respondent Characteristics in the Working Area of the Pot Girek Community Health Center, Cot Girek District, North Aceh Regency

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (f)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of respondents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;35 years old</td>
<td>35</td>
<td>42.2</td>
</tr>
<tr>
<td>≤35 years old</td>
<td>48</td>
<td>57.8</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>38</td>
<td>45.8</td>
</tr>
<tr>
<td>Medium</td>
<td>36</td>
<td>43.4</td>
</tr>
<tr>
<td>High</td>
<td>9</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Parity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primiparous</td>
<td>19</td>
<td>22.9</td>
</tr>
<tr>
<td>Multiparous</td>
<td>64</td>
<td>77.1</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>40</td>
<td>48.2</td>
</tr>
<tr>
<td>Less</td>
<td>43</td>
<td>51.8</td>
</tr>
<tr>
<td><strong>Behavior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>65</td>
<td>78.3</td>
</tr>
<tr>
<td>Less</td>
<td>18</td>
<td>21.7</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>37</td>
<td>44.6</td>
</tr>
<tr>
<td>Low</td>
<td>46</td>
<td>55.4</td>
</tr>
<tr>
<td><strong>Health Care Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>38</td>
<td>45.8</td>
</tr>
<tr>
<td>Less</td>
<td>45</td>
<td>54.2</td>
</tr>
<tr>
<td><strong>Health Service Distance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Near</td>
<td>18</td>
<td>21.7</td>
</tr>
<tr>
<td>Medium</td>
<td>10</td>
<td>12.0</td>
</tr>
<tr>
<td>Far</td>
<td>55</td>
<td>66.3</td>
</tr>
<tr>
<td><strong>Maternal Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>48</td>
<td>57.8</td>
</tr>
<tr>
<td>Less</td>
<td>35</td>
<td>42.2</td>
</tr>
<tr>
<td><strong>ANC Service Utilization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>39</td>
<td>47.0</td>
</tr>
</tbody>
</table>
### Table 1. Relationship of Education, Parity, Knowledge, Attitudes, Income, Support of Health Officers, Distance of Maternal Health and Health Services to Utilization of ANC Health Services in the Working Area of Community Health Center Cot Girek, Aceh Utara District

<table>
<thead>
<tr>
<th>Variable</th>
<th>Utilization of ANC Health Services</th>
<th>Total</th>
<th>p (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good (%)</td>
<td>Less (%)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>8 (9.6)</td>
<td>30 (36.1)</td>
<td>38 (45.8)</td>
</tr>
<tr>
<td>Medium</td>
<td>25 (30.1)</td>
<td>11 (13.3)</td>
<td>36 (43.3)</td>
</tr>
<tr>
<td>High</td>
<td>6 (7.2)</td>
<td>3 (3.6)</td>
<td>9 (10.8 )</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primiparous</td>
<td>8 (9.6)</td>
<td>11 (13.3)</td>
<td>19 (22.9)</td>
</tr>
<tr>
<td>Multiparous</td>
<td>31 (37.3)</td>
<td>33 (39.8)</td>
<td>64 (77.1)</td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>35 (42.2)</td>
<td>5 (6)</td>
<td>40 (48.2)</td>
</tr>
<tr>
<td>Less</td>
<td>4 (4.8)</td>
<td>39 (47)</td>
<td>43 (51.8)</td>
</tr>
<tr>
<td>Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>32 (38.6)</td>
<td>33 (39.8)</td>
<td>65 (78.3)</td>
</tr>
</tbody>
</table>

Bivariate Analysis

The results of the statistical test showed that the value of p (sig) = 0.000 <0.05, which means that there is a relationship between education and the utilization of ANC health services in the working area of the Cot Girek Health Center, North Aceh Regency. The results of the statistical test analysis showed that the value of p (sig) = 0.823> 0.05, which means that there is no parity relationship with the utilization of ANC health services in the working area of the Cot Girek Health Center, North Aceh Regency. The results of the statistical test analysis showed that the value of p (sig) = 0.000 <0.05, which means that there is a relationship of knowledge with the utilization of ANC Health Services in the working area of the Cot Girek Health Center, North Aceh Regency. The results of the statistical test analysis showed that the value of p (sig) = 0.609> 0.05, which means that there is no relationship between attitudes and the use of ANC health services in the working area of the Cot Girek Health Center, North Aceh Regency. The results of the statistical test analysis showed that the value of p (sig) = 0.000 <0.05, which means that there is a relationship between income and the utilization of ANC health services in the working area of the Cot Girek Health Center, North Aceh Regency. The results of the statistical test analysis showed that the value of p (sig) = 0.000 <0.05, which means that there is a relationship between the support of health workers and the utilization of ANC health services in the working area of the Cot Girek Health Center, North Aceh Regency. The results of the statistical test analysis showed that the value of p (sig) = 0.167> 0.05, which means that there is a relationship between the distance of health services and the utilization of ANC health services in the working area of Community Health Center Cot Girek, North Aceh Regency. The results of the analysis of statistical test results obtained that the value of p (sig) = 0.386> 0.05, which means that there is no relationship between maternal health and the use of ANC health services in the working area of Community Health Center Cot Girek, Aceh Utara district.
## Utilization of ANC Health Services

<table>
<thead>
<tr>
<th>Variable</th>
<th>Utilization of ANC Health Services</th>
<th>Total</th>
<th>p (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>Less</td>
<td>f</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>29</td>
<td>8,4</td>
<td>11</td>
</tr>
<tr>
<td>Less</td>
<td>10</td>
<td>12,0</td>
<td>36</td>
</tr>
<tr>
<td><strong>Health Care Support</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>29</td>
<td>34,9</td>
<td>8</td>
</tr>
<tr>
<td>Less</td>
<td>10</td>
<td>12,0</td>
<td>36</td>
</tr>
<tr>
<td><strong>Health Service Distance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Near</td>
<td>12</td>
<td>14,5</td>
<td>6</td>
</tr>
<tr>
<td>Moderate</td>
<td>4</td>
<td>4,8</td>
<td>6</td>
</tr>
<tr>
<td>Far</td>
<td>23</td>
<td>27,7</td>
<td>32</td>
</tr>
<tr>
<td><strong>Maternal Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>25</td>
<td>30,1</td>
<td>23</td>
</tr>
<tr>
<td>Less</td>
<td>14</td>
<td>16,9</td>
<td>21</td>
</tr>
</tbody>
</table>

**Multivariate Analysis**

The multivariate analysis carried out was logistic regression and the following results were obtained:

### Odds Ratio

The amount of influence is indicated by the EXP(B) value or also called *odds ratio (OR)* in the logistic regression test (Dahlan Sopiyudin, 2009). i.e; (1) The result of the OR value on the knowledge variable is indicated by an OR value of 0.012. This means that knowledge tends to be 0.012 times as influential as the Utilization of ANC Health Services. Value B = natural logarithm of 0.012 = -4.461. Therefore, the value of B is negative to the Utilization of ANC Health Services; (2) The result of the OR value on the revenue variable is indicated by an OR value of 0.184. This means that revenues tend to be 0.184 times as likely to have an influence on the Utilization of ANC Health Services. Value B = natural logarithm of 0.184 = -1.691. Therefore, the value of B is negative to the Utilization of ANC Health Services. (3) The result of the OR value on the Attendant Support variable is indicated by an OR value of 0.043. This means that officer support tends to be 0.043 times as influential as the ANC’s Health Service Utilization. Value B = natural logarithm of 0.043 = -3.142. Therefore, the value of B is negative to the Utilization of ANC Health Services.

So, it can be concluded that the factor that has the greatest influence on the utilization of ANC Health Services is family income. Where the income is low, it has an effect on the lack of utilization of ANC Health Services as much as 0.184 times compared to high income.

The regression equation obtained is ((Dahlan Sopiyudin, 2009).):

\[
Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e
\]

\[
Y = 4.632 + (-4.461) (1) + (-1.619) (1) + (-3.142) (1) + (1-R Square)
\]

\[
Y = 4.632 - 4.461 - 1.691 - 3.142 + (1-0.815)
\]

\[
Y = -4.662 + 0.185 = -4.477
\]
Application of the equation obtained above, then the calculation is carried out to predict the probability of antenatal care by pregnant women on the utilization of health services ((Dahlan Sopiyudin, 2009);

\[ P = \frac{1}{1+(e^{-y})} = \frac{1}{1+(2.7^{-(4.477)})} = \frac{1}{1+85.35} = \frac{1}{86.35} = 0.011 \]

Thus, the probability of antenatal care by pregnant women on the utilization of health services was 1.15%.

Table 3. Results of the Third Stage Logistic Regression Test Analysis

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>B</th>
<th>p (Sig)</th>
<th>Exp (B)</th>
<th>95% C. I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowledge</td>
<td>-4.461</td>
<td>0.000</td>
<td>0.012</td>
<td>0.001 - 0.104</td>
</tr>
<tr>
<td>2</td>
<td>Income</td>
<td>-1.691</td>
<td>0.049</td>
<td>0.184</td>
<td>0.034 - 0.991</td>
</tr>
<tr>
<td>3</td>
<td>Officer support</td>
<td>-3.142</td>
<td>0.005</td>
<td>0.043</td>
<td>0.005 - 0.388</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>4.632</td>
<td>0.000</td>
<td>102.721</td>
<td></td>
</tr>
</tbody>
</table>

Qualitative Research Results

Pregnancy examinations are just pregnancy checks to find out the condition of the baby, while informant 2 stated that pregnancy checks are carried out every three months, to avoid cesarean section.

"Yes, according to you, the prenatal checkup, yes, check on pregnant, so you know where our baby is, whether or not it is healthy.

“Checking for pregnancy is important, deck, I check for pregnancy once in 3 months so that there are no problems when I give birth later. That's why I routinely check for pregnancy, I'm afraid I will have surgery after delivery” (I.2).

The last education was SMA and Informant 2. Last education was D III computer.

"Brother just graduated from high school, there is no deck fee, I continue to study" (I.1)

"if I graduate from D III in the deck computer dilhokseumawe" (I.2)

Based on the results of the interview about parity, it was known that the informant 1 was pregnant at the time of her third pregnancy, the mother did not do a pregnancy check because the mother felt that the previous pregnancy had no problems and in the current pregnancy there was no feeling of interference with her pregnancy while informant 2 stated that currently the pregnancy second, the mother performs routine pregnancy checks every three months.

"This is pregnant to the three decks, already two older siblings” (I.1)
"If this is my second pregnancy on deck, that’s why I regularly come to check so there are no problems” (I.2)

Based on the results of the interview about income, it is known that informant 1 monthly family income <Rp. 2,900,000, mother helps the family to increase family income to the fields while informant 2 states that monthly family income is> Rp. 2,900,000, the mother does not work but as a housewife.

"There is an opinion if you say <2,900,000, that's why you help your husband go to the rice field” (I.1)

“Alhamdulillah Enough deck, is roughly over> 2,900,000, I'm just at home” (I.2)

Based on the interview about the support of health workers, it is known that respondent 1 mother did not receive notification to come for the next pregnancy check, while informant 2 stated that the mother did not notify when the next pregnancy check-up was scheduled, but the
mother came during the examination every three months if there was a disease, like I have a cough or fever, so for a pregnancy checkup.

"I didn't know the pregnant check-up deck, no one was told, but brother went to the rice field" (I.1)
"I was not told the deck, but I went alone according to a schedule that has been every three months, but sometimes if I have a fever, cough, runny nose I go too". (I.2)

Based on the results of the interview regarding the distance to health services, it was known that respondent 1, if the mother wanted to have a pregnancy checkup, was far from the health service so that the mother was less willing to come, while respondent 2 stated that the long distance from the service was an obstacle, so the mother had to wait for her husband to deliver.

"It is far from the deck of the Community Health Center from the deck house, where are you going to the deck again, that's why you rarely want to check" (I.1)
"Yes, the distance to the Community Health Center is indeed far, that is, if I want to check for pregnancy, wait for my husband to come home on deck, but when it's time, stay pigi" (I.2)

Based on the table above regarding maternal health, it is known that respondent 1’s current pregnancy has no problem but is easily tired so that is the obstacle for the mother to come to the Community Health Center, while respondent 2 states that the mother is now more often nauseous and vomits than the first pregnancy, the mother wants to have it checked.

"This is pregnant, brother, there is no problem with the prayer deck. Hopefully there is nothing on the deck, but you get tired easily, maybe because you are in the field" (I.1)
"I feel nauseous and vomiting more often than when I was pregnant before," (I.2)

The knowledge of pregnant women here about the importance of antenatal care at the Community Health Center is lacking so that it makes mothers less interested in coming to the Community Health Center for pregnancy checks.

"The knowledge of pregnant women here about the importance of antenatal care at Community Health Center is lacking” (I. Midwife)

Based on the table above, it is known from respondents that the attitude of pregnant women here accepts and agrees to carry out pregnancy examinations at the Community Health Center even though their knowledge does not understand the importance of conducting examinations at the Community Health Center.

"The attitude of pregnant women here is accepting and agreeing to do pregnancy checks at the Community Health Center” (I. Midwife)

The last education of the informants, on average, the mothers here are high school and the equivalent.

"The last average education of the mothers here is high school and the equivalent" (I. Midwife)

Parity or the number of children is very influential with mothers to come for a pregnancy check-up at the Community Health Center, usually they feel that their previous pregnancy was fine and that the current pregnancy is also considered to have no complaints.

“Parity or the number of children is very influential with mothers to come for a pregnancy check-up at the Community Health Center, usually they feel that their previous pregnancy was fine and that the current pregnancy is also considered to have no complaints” (I. Midwife)

Family income is one of the reasons why mothers do not come for pregnancy checks at the Community Health Center, usually pregnant women also work to increase family income.
"Family income is one of the reasons why mothers do not come for pregnancy checks at the Community Health Center" (I. Midwife)

Village midwives as health workers usually do not provide support to pregnant women, but when the midwife comes to visit the village the pregnant women are not at home because of work, this makes the midwife unable to provide information to pregnant women.

"Village midwives as health workers do not usually provide support to pregnant women” (I. Midwives)

The distance to health services such as Community Health Centers is far from the place of residence. This also causes pregnant women to be less interested in coming to the Community Health Center to have their pregnancy checked.

“Yes, here the distance to health services such as a Community Health Center is far from where you live” (I. Midwife)

Pregnant women also feel that due to health conditions that may include nausea, vomiting, fatigue, long service distances, less family income, it makes it more difficult for pregnant women to come for pregnancy checks at the Community Health Center.

"Sometimes pregnant women also feel that with their health conditions there may be nausea and vomiting, (I. Midwife)

Mother's knowledge about the importance of antenatal care in a health service place, namely the Community Health Center is still lacking. they feel that antenatal care is not really important because the conditions during pregnancy feel good.

"Mother's knowledge about the importance of prenatal care in health service places, namely Community Health Centers, is still lacking” (I. Midwife)

Their attitude is that they accept and agree when a health worker comes, especially a midwife, who provides information and knowledge to carry out pregnancy screening at the Community Health Center, but there are many obstacles that prevent them from coming to perform a pregnancy check at the Community Health Center.

"Their attitude accepts and agrees if there are health workers who come, especially midwives who provide information and knowledge to carry out pregnancy checks at the Community Health Center” (I. Midwife)

The latest education of pregnant women here is on average high school and equivalent, there are also not many DIII and S1 colleges, but there is still the last education, namely junior high school and equivalent.

"The latest education of pregnant women here is on average high school and equivalent, there are also not many DIII and S1 colleges, the last education is not much” (I. Midwife)

Parity or the number of children, usually pregnant women feel that before their pregnancy was not a problem, their children are already four, this is the fifth pregnancy, in the past there was also no pregnancy check-up but it was fine, this is what causes pregnant women to feel that they don't need to do a pregnancy check in particular at Community Health Center.

"Yes, parity or the number of children is usually an influence, pregnant women feel that in the past there was no problem with their pregnancy, now they have 4 children” (I. Midwife)

Family income is a very influencing problem for mothers to come for pregnancy checks at the Community Health Center, because here the average family income is less, many pregnant
women work to help their husbands in the fields, fields to increase family income, so that it is
time to come to the Community Health Center. Nothing.
"Family income is a very influencing problem for mothers to come for pregnancy checks
at the Community Health Center" (I. Midwife)
The support of health workers is good, but there are still many obstacles faced by the
community, especially village midwives, as health workers who are primarily in charge of
serving pregnant women until later on.
"I feel that the support from health workers is good, but there are still many obstacles
faced by the community, especially village midwives" (I. Midwife)
Long distance to health services, especially the Community Health Center, when pregnant
women find it difficult to come for pregnancy check-ups at Community Health Center
"Yes, here the distance to health services such as a Community Health Center is far
from where you live”.
The health of pregnant women is not the same, the health conditions of pregnant women change
every day, fatigue because pregnant women work, nausea and vomiting during pregnancy, plus
the long distance to health services, namely the Community Health Center, this causes pregnant
women to look for other alternatives to overcome their situation so that the mother pregnant no
longer come to do checkups at the Community Health Center.
"There is little effect, because the health of pregnant women is not the same, the health
condition of pregnant women changes every day” (I. Midwife)

**Education Analysis with the Utilization of ANC Health Services**

Education in a broad sense is all learning activities that take place throughout the ages in all
situations of life activities. Education in a narrow sense, namely all planned learning activities,
with organized material, carried out on a scheduled basis in a supervisory
system, and given an
evaluation based on predetermined goals (Suparlan,2006).

A highly educated person will find it easier to accept new ideas or digest information and more
easily understand and understand what is conveyed compared to people with low education
(Hutahaean, 2013). Thus it can be said that the higher the education of the community, the
higher the knowledge so that the need for the importance of health services is also higher. Most
of the respondents do not work or are housewives, so the researchers think that respondents
who do not work have more opportunities to get health information and carry out pregnancy
examinations. There are several aspects that affect health status and people who behave
healthy, including work.
The results showed that the level of education has a significant relationship with the use of
ANC with a weak relationship strength. This is in line with several previous research results,
including research by Bbaale in Uganda, Rejoice and Ravishankar in India, Dhakal in Nepal,
Mumbaredi Maharastra, Rahmandi Bangladesh, Jatdi India, and Tsegaidi Ethopia which found
that there was a relationship between education level and the use of ANC. However, it is
different from the Pongsibidang research in the working areas of the Community Health Center
of North Toraja and Sarminah in Papua Province11,12 which did not find a relationship
between the level of education and the use of ANC.

**Parity Analysis with ANC Health Service Utilization**

So based on the above results the researcher argues that respondents who have 1 child
(primipara) take more advantage of regular pregnancy examinations compared to respondents
who are at risk, namely those who have more than 1 child (multiparous), which is because
pregnant women are the respondents, who are in the working area of the Community Health Center cot girek because primiparous mothers still really expect their pregnancy, so that pregnant women come to have their pregnancies checked regularly, so that their pregnancies end well and get healthy children. For a multiparous mother who has experienced several births, so that the mother is familiar with the pregnancy process, especially if in her previous pregnancy the mother did not experience anything worrying, then the pregnant woman does not feel the need to have her pregnancy checked.

Most of the multigravida respondents, according to researchers, make it easier for respondents to do prenatal care because they have experience in pregnancy and childbirth. Parity 2-3 is the safest parity in terms of maternal mortality. Parity 1 and high parity (more than 3) have a higher risk of maternal death.

Knowledge Analysis with ANC Health Service Utilization

This study is in line with Muniarti's (2007) research that factors related to the use of antenatal services are maternal knowledge and affordability of services. There are still many pregnant women who do not carry out pregnancy checks to health workers regularly. From the observation, it can be seen that mothers who do not use antenatal care services regularly are due to the lack of knowledge of pregnant women about the importance of having regular checkups during pregnancy. A person's knowledge can be formed through a process of experience and levels of education (Puskemas, 2019).

In this case, knowledge plays an important role in determining a person's attitude to come to health workers. The authors assume that the better the knowledge of pregnant women about the benefits of antenatal care will change the attitude of the mother from unwilling to use it to being exploited. Pregnant women usually come to health workers at the beginning of pregnancy to find out whether the mother is really pregnant or not. The next pregnancy examination, the mother did not make a visit because she felt that she had no complaints about her pregnancy.

It is also known that good knowledge will provide reinforcement to individuals or pregnant women in every decision to behave. In this case, what is meant by knowledge is information about the benefits of pregnancy and the benefits of taking antenatal care or pregnancy checks. This happens, because apart from knowledge, many other factors influence health utilization. Several reasons include the level of perceived need or attitudes and beliefs regarding health services. In general, people who feel sick come to take advantage of health services and vice versa, people who actually need health services but feel healthy will not come to take advantage of health services. Attitudes or beliefs about pregnancy services also affect the use of health services. If the respondent does not know the benefits of taking antenatal measures, it will have an impact on the respondent's motivation to come and take advantage of health services, including in dealing with childbirth.

These results indicate that knowledge plays a very important role in determining how a person acts. When pregnant women know the benefits and schedule of antenatal care, it is likely that pregnant women will carry out antenatal care measures regularly. This knowledge can be obtained from health workers, families or the mass media. Although from the results of this study there were also respondents who had less knowledge about antenatal care, and were still able to perform antenatal care for several reasons, among others, because of the level of perceived need or attitudes and beliefs regarding antenatal care services.

Attitude analysis with ANC Health Service Utilization

Attitudes include being responsive to complaints, giving opportunities to ask questions, clear and easy to understand information. According to Lawrence Green, there are 3 factors that influence the utilization of health services, namely predisposing, enabling and reinforcing factors. Attitude is one of the reinforcing factors that cause pregnant women to want to take
advantage of antenatal services at the Community Health Center.

**Analysis of Opinions with the Utilization of ANC Health Services**

The results of this study indicate that most of the respondents with sufficient income take advantage of antenatal services regularly, while the respondents with more or less incomes do not use services regularly. This means that there is a strong relationship between income and regular use of antenatal care. This is in accordance with the theory that one of the factors influencing the utilization of health services is income. Respondents with sufficient income but not regularly using antenatal services were still found in this study. This is because there are many factors that influence the utilization of health services that were not included in this study, such as attitudes, experiences, needs, and so on. Attitude makes a person approach or away from other people or other objects. Thus, when pregnant women have a negative attitude towards antenatal services, they will tend to stay away or not take advantage of antenatal services, even though they have sufficient income to pay for these services.

The results of this study also indicate that there are still many respondents with less income levels. This condition causes them to place health services as a secondary, even tertiary, need. The results of this study are in line with the research which concluded that family income has a significant effect on the frequency of visits to health services. Respondents who stated that the cost of inspection was cheap were more likely to use the service regularly, while respondents who stated that the cost of examination was higher did not use the service regularly. This shows that there is a relationship between examination costs and regularity in the use of antenatal care.

**Analysis of Support for Health Workers with the Utilization of ANC Health Services**

The majority of pregnant women who make ANC visits are those who receive support from health workers. In addition, the number of births (parity) also has an influence in checking, this shows that women who have been pregnant do not perform K4 pregnancy checks because their previous pregnancies also did not do K4 and nothing happened, the mother considered the child healthy and the mother healthy (Siregar SR 2017).

Mothers do not have regular pregnancy check-ups due to the absence of information about the next visit schedule from health workers. Health workers are a factor that does not directly affect individuals. Health workers are external components that shape behavior, while internal factors or those that directly influence are individual attitudes and intentions. In this case, it was found that family support influenced respondents to come to take antenatal care at the Cot Girek Community Health Center. Family support in this case is the level of trust in the environment around the respondent who still believes in traditions or myths about pregnancy, and they influence pregnant women to believe in it. In the Cot Girek Community Health Center area, there are still many who still believe in traditional healers as a place to have their pregnancy checked, although they also come to the Community Health Center for antenatal care. And usually things like this can make antenatal care visits to Community Health Centers sometimes not done regularly and completely.

From the results of interviews conducted with informants who support health workers, it is known that the respondent 1 mother received no notification to come for the next pregnancy check. This is why pregnant women rarely visit the Community Health Center to have their pregnancy checked. Pregnant women do not know the exact schedule of pregnancy visits, so when the mother feels that she does not have a problem with her pregnancy, the mother does not visit the Community Health Center.

Analysis of Distance between Health Services and Utilization of ANC Health Services Long distances make pregnant women lazy to come to health workers, usually mothers come when it is approaching the time to give birth. Pregnant women also think that using health services
requires large costs, and is still often encountered, especially for pregnant women who have low economies. In addition, mothers do not take advantage of antenatal care services due to the mother’s experience of previous pregnancies, mothers think that in the previous pregnancy, there was no harm to the mother and the baby, even though the mother did not have her pregnancy checked regularly.

Based on interviews conducted with informants about the distance to health services, it is known that if the mother wants to have a pregnancy checkup with a far distance from health services, the mother is less willing to come so the mother has to wait for her husband to deliver.

**Analysis of Maternal Health with the Utilization of ANC Health Services**

Every pregnant woman will face risks that can threaten her life. Therefore, every pregnant woman needs care during her pregnancy (antenatal care). The purpose of conducting antenatal care services is to obtain information about the health of the mother and fetus, early establish the diseases that accompany pregnancy, early establish pregnancy complications, determine the risk of pregnancy, and prepare for labor so that the birth can run normally and the baby can be born health (Salmah & Maryanah, 2006).

In addition, mothers do not take advantage of antenatal care services due to the mother’s experience of previous pregnancies, mothers think that in the previous pregnancy, there was no harm to the mother and the baby, even though the mother did not have her pregnancy checked regularly.

**Conclusion**

Based on data analysis and research findings, it can be concluded that there is an influence between knowledge, income, support, education, parity, attitude, distance from the Health Service Center and the use of ANC health services in the working area of the Cot Girek Community Health Center, Aceh Utara District.

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