Factors Affecting the Independence of the Primipara Mother in Care of the Infant at Pidie Jaya Hospital

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Abstract

The research objective to be achieved is to analyze the factors that influence the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital. This type of research uses a descriptive analytic survey with a cross sectional design. The population in this study amounted to 56 people, while the sample amounted to 56 Primiparous mothers, with total sampling technique. Data analysis was carried out by univariate, bivariate and multivariate analysis. Based on the results of the chi-square test, it is known that the independence of primiparous mothers is related to maternal knowledge \( p = 0.000 \), culture \( p = 0.002 \), trust \( p = 0.001 \), maternal age \( p = 0.001 \), family support \( p = 0.003 \) means that there is a relationship between mother’s knowledge, culture, and beliefs. Maternal age, and family support with primiparous mother independence. From the results of multivariate analysis, it is known that the most dominant variable influencing in this study is the Mother’s Knowledge variable with an OR value of 2.1483. The conclusion in this study is that there is an influence of mother’s knowledge, culture, beliefs, maternal age, and family support with primiparous mother independence. From the results of multivariate analysis, it is known that the most dominant variable influencing in this study is the Mother’s Knowledge variable with an OR value of 21.483. The conclusion in this study is that there is an influence of mother’s knowledge, culture, beliefs, maternal age, and family support with primiparous mother independence. The suggestion is that it is hoped that this research can be used as reference material for hospitals, especially increasing the competence of midwives in order to maximize mother’s knowledge during hospitalization so that they can independently care for their babies at home.

Introduction

The birth of a child poses a fundamental challenge to the already established structure of family interactions regarding newborn care. When a baby is born for the first time, mothers may feel confused about how to care for them. Even routine tasks such as changing diapers and bathing can make a mother anxious, especially if she has never spent her time on baby care-related matters before. To develop independent personal abilities, it takes confidence and a sense of calm as an experienced parent, both for mothers who have given birth for the first time (primipara) and mothers who have given birth before (multipara) (Herawati, 2015).

For mothers, being a parent is a maturation factor in both physically and psychologically for a woman or a man. The duties, responsibilities and attitudes that shape the role of being a parent are expected to be able to meet the basic needs of children, including physical-biomedical needs (nurturing), the need for affection/emotional (love) and the need for exercise/stimulation/play (honing) so that children can grow. and develop optimally according to their abilities (Hardjito et al., 2017).
The health of infants and toddlers must receive serious attention from parents. Because children's health also determines the process of growth and development. Healthy babies and toddlers are better able to develop their intellectual potentials than children who are often sick (Eveline & Djamaludin, 2010). Newborn growth and development (BBL) is a period of adjustment to life forms, most of this adjustment process is completed in about the first week. Even if for purposes the first month of life is described as the neonatal period (Herawati, 2015). In the postpartum period, the newborn undergoes complex biophysiological and behavioral changes as a result of the transition to extraterine life. Newborn nursing care is based on knowledge of these biophysiological changes and the impact of the infant on the family unit. The first few hours after birth represent a critical adjustment period for the newborn. In most settings, the nurse provides direct care to the baby immediately after birth (Stright, 2001).

In order to prevent hypothermia, which causes the baby to die, the skills needed to carry out parental duties are actually very basic, so there is little difference between the skills needed by traditional birth attendants and those needed by health workers and parents. There are two main tasks that need to be done in caring for sick newborns, namely routine management (WHO, 2010). In addition to the risks faced during childbirth, the transition from inside the uterus to being independent outside the uterus is the second most critical period in the life of a neonate. Mismanagement or failure to anticipate adversity results in unintended harm or death of the newborn (Liu, 2007).

Most child and infant deaths occur due to neonatal tetanus. The child mortality rate from year to year shows a decline. The results of the Indonesia Demographic and Health Survey (IDHS) in 2017 showed the Neonatal Mortality Rate (AKN) of 15 per 1,000 live births, the Infant Mortality Rate (IMR) of 24 per 1,000 live births, and the Toddler Mortality Rate (AKABA) of 32 per 1,000 live births. Trends in child mortality in 1991-2017 from the results of the IDHS.

The infant mortality rate is one indicator of the nation's health status. The cause of high infant mortality in the first 28 days of life is the poor handling and care of newborns. Neonatal mortality is often triggered by neonatal care problems experienced by the community, namely the lack of independence of mothers in BBL care so that BBL care is carried out by others without paying attention to cleanliness or sterility during treatment. Therefore, the author feels very interested in studying the management of the newborn, because if the management of the newborn is not carried out properly, it will have a very bad impact on the baby, as the author has described above. In addition, there are still many primiparous mothers who do not know how to properly care for them, so that there can be bad chances of the treatment itself (Arianto, 2017).

The infant mortality rate in Aceh until the end of 2020 has reached 10/1000 LH. This condition is different from the previous year. This happens because there is still a lack of standardized maternal and child health services, due to the lack of capacity building for midwives in the villages and management of newborns and the lack of understanding of mothers in early detection of fetal danger signs. To achieve the targets that have been set, the Aceh government has encountered obstacles in efforts to reduce the Infant Mortality Rate through the face-to-face method, this condition cannot be carried out optimally due to the COVID-19 pandemic outbreak situation. Infant Mortality Rate (IMR) in Aceh in 4 (four) years The latter tends to experience movements that are not in accordance with the set targets. In 2017 and 2018 the IMR in Aceh was at 10/1000 LH. However, in 2019 it can be lowered to 9/1000 LH and in 2020 it will rise again to 10/1000 live births (Aceh, 2020).

Based on the initial survey that the author conducted at the Pidie Jaya Hospital, data on mothers giving birth in 2021 was 135 people with 56 primiparas and 83 multiparas. Based on data from the Pidie Jaya Hospital, the total number of pregnant women in the third trimester at the Pidie
Jaya Hospital is 56 people, with the breakdown of 35 people with an Estimated Delivery Date (TTP) in September 2021, 21 people with TTP in October 2021.

Then the researcher conducted interviews with 8 maternity mothers, namely 4 primiparous mothers and 4 multiparous mothers. Of the 4 primiparous mothers, admitted that they did not know well about newborn care and said that all activities and needs in the care of their babies were assisted by their families. Of the 4 multiparous mothers, 2 of them admitted to taking care of their babies themselves because they already knew well about newborn care based on the experience and knowledge provided by the midwife, while 2 others admitted that their mothers were taking care of their babies because they still did not understand new babies born and afraid to hold himself when bathing. From the results of the interview, it can be seen that there is a problem of independence in primiparous mothers in caring for their babies compared to multiparous mothers even though there is 1 mother who is also not independent in caring for her baby.

So based on the above background, the researcher is interested in conducting a study entitled "Factors that affect the independence of mothers in caring for newborns in Pidie Jaya Hospital in 2022".

**Methods**

The research design used in this study is a descriptive analytic survey with a cross sectional design, which is a study to study the dynamics of the correlation (relationship) and the influence of the independent variable on the dependent variable at the same time (Notoatmodjo, 2012).

**Measurement Aspects**

Based on the description of the measurement method of each of the variables of this study can be seen in the table below:

Table 1. Measurement Method

| No | Variable Name                  | Number of Questions | Measuring Instruments | Measurement Scale | Value                      | Measuring Scale |
|----|--------------------------------|---------------------|-----------------------|-------------------|----------------------------|----------------|
|    | **Independent**                |                     |                       |                   |                           |                |
| 1  | Maternal knowledge             | 15 Questions        | Questionnaire         | 1-15              | Good (1) Less (0)         | Ordinal        |
| 2  | Culture                        | 5 Questions         | Questionnaire         | 1-5               | Support Less Supportive   | Ordinal        |
| 3  | Belief                         | 5 Questions         | Questionnaire         | 1-5               | Support Less Supportive   | Ordinal        |
| 4  | Mother's Age                   | 1 Question          | Checklist Sheet       | 1-2               | 20-45 years old (1) <20 or >45 years old (2) | Nominal        |
| 5  | Family Support                 | 10 Questions        | Questionnaire         | 1-10              | Support Not Supportive    |                |
|    | **Dependent**                  | 30 questions        | Questionnaire         | 1-15 pm 16-30     | Less Independent (0) Independent (1) | Ordinal        |
Data Collection Techniques

The research data was collected by methods, namely interviews using structured questionnaires (for data about the characteristics of the subject and various variables that can be measured where these variables are. An explanation of the objectives, benefits, side effects and how to handle side effects that may arise due to data collection activities has been given. Prior to data collection, all subjects will be advised and asked to sign an informed consent form which is approved as proof of their willingness to participate in research activities.

Validity and Reliability Test

The questionnaire instrument that has been designed needs to be tested for validity and reliability so that the data to be analyzed has a very high degree of accuracy and confidence (Prasetyo & Jannah, 2006). Before the questionnaires were distributed to the real respondents, the validity and reliability tests were carried out first, namely:

Validity test

Azwar (1987) states that validity comes from the word validity which means the extent to which the accuracy and accuracy of a measuring instrument (test) in carrying out its measuring function. A test is said to have high validity if the tool performs the measuring function correctly or provides measurement results that are in accordance with the purpose of the measurement. This means that the measurement results from these measurements are quantities that accurately reflect the facts or actual conditions of what is being measured (Matondang, 2009). The validity test in this study will be carried out at the Mufid Sigli General Hospital, Pidie Regency with a total of 20 respondents with a significant level of 5%. The selection of respondents was based on the criteria determined by the researcher. The number of questionnaires to be tested for validity is 30 items. In testing the validity of the questionnaire, it is done by testing the correlation between the score (value) of each question item to the total score of all questions using the Pearson Product Moment formula. The formula is available in the Statistical Package For The Social Sciences (SPSS) version 17.0.

Reliability Test

The reliability of measuring instruments is to find and find out how far the measurement results can be trusted. Reliability shows the extent to which the measuring instrument is able to measure consistently against what is being measured. Reliability measurement is carried out using Cronbach's Alpha (α) method, which is a technique for testing the reliability of a test or questionnaire that is often used because it can be used on tests or questionnaires whose answers are choices, the choices can consist of two or more. Measurement of reliability using computer software with the Cronbach Alpha formula. A variable is said to be reliable if it gives Cronbach's Alpha value > 0.60 (Hidayat, 2009). To measure the reliability of the measuring instrument in this study, the internal consistency method was used, namely the imposition of the test only once on the subject group by using the alpha coefficient formula with the help of SPSS.

Data Analysis

After processing the data as described above, the next step is to perform data analysis. The types in analyzing the data in this study are as follows.

Univariate Analysis

Univariate analysis is a technique of analyzing data on one variable independently. Each variable was analyzed without being associated with other variables. Univariate analysis is also known as descriptive analysis or descriptive statistics which aims to describe the condition of the phenomenon under study. Univariate analysis is an analysis carried out to analyze each variable from the research results. Univariate analysis aims to explain or describe the
characteristics of each research variable. The form of univariate analysis depends on the type of data. For numerical data, the mean or average value is used. In general, this analysis only produces the frequency distribution and the percentage of each variable (Winangsih & Sariyani, 2021). This analysis is to see a picture of the frequency distribution of all the variables studied, both dependent variables and independent variables.

Univariate analysis is calculated as follows:

\[ F = \frac{X}{N} \times 100 \]

Information:
- \( X \) = Amount earned
- \( N \) = Total population

1. Bivariate Analysis.

This analysis aims to see the relationship between the dependent variable and the independent variable. The test used in this bivariate analysis is the Chi-square test \((X^2)\), at the limit of the statistical significance of the p-value (0.05). If the calculation results show the p value < p-value (0.05) then it is said (Ho) is rejected, meaning that the two variables have a statistically significant relationship. Then to explain the association (relationship) between the dependent variable and the independent variable, cross tabulation analysis was used. The relation with the bivariate formula (chi-square)

\[ X^2 = \sum \frac{(O - E)^2}{E} \]

Information:
- \( X^2 \) = Chi-square
- \( \sum \) = Sum
- O= Observation
- E= Expectations

For a 2 x 2 table, look up the value of \( X^2 \) by using the formula from Hastono (2007) as follows:

\[ X^2 = \sum \frac{((O - E) - 0.5)^2}{E} \]

Information:
- \( X^2 \) = Chi-square
- \( \sum \) = Number of
- O= Observation
- E= Expectations

**Multivariate Analysis**

This analysis is to see the effect (relationship) between the independent variables on the dependent variable with the type of logistic regression analysis in order to obtain the independent variable that most dominantly affects the dependent variable. Logistic regression is an approach to making predictive models such as linear regression or commonly referred to as Ordinary Least Squares (OLS) regression. The difference is that in logistic regression, the
A researcher predicts the dependent variable on a dichotomous scale. The dichotomous scale in question is a nominal data scale with two categories, for example: Yes and No, Good and Bad or High and Low. Get the appropriate equation and get the Odds ratio value that has been adjusted by the logistic regression formula (Sukardi, 2021).

The algebraic equation model like OLS that we usually use is as follows: \( Y = B_0 + B_1X + e \). Where \( e \) is the error variance or residual. With this regression model, it does not use the same interpretation as the OLS regression equation. Model The equation formed is different from the OLS equation (Fitrah, 2018).

The multivariate formula used is:

\[
\ln \left( \frac{\hat{p}}{1-\hat{p}} \right) = B_0 + B_1X
\]

\( \ln \): Natural Logarithm, where:

\( B_0 + B_1X \): Commonly known equations in the OLS

Determination of the most dominant variable is done through the value of the odds ratio (OR), the variable that has the highest OR is called the dominant variable.

**Results and Discussion**

**Characteristics of Respondents**

The characteristics of the samples taken in this study include age, gender and education. The independent variables include knowledge, culture, beliefs, parity, maternal age and family support. Univariate analysis was conducted to see the frequency distribution of the respondent's characteristics and the frequency distribution of the independent variables (knowledge, culture, belief/religion, mother's experience, mother's age and family support) as well as the dependent variable (mother's independence in caring for the baby).

**Table 2. Characteristics of Respondents Based on Usia at Rsud Pidie Jayain 2022**

| No. | Age            | f  | Percentage |
|-----|----------------|----|------------|
| 1   | >20 Years      | 32 | 57.1       |
| 2   | 21-45 Years    | 24 | 42.9       |
| Total|                | 56 | 100.0      |

Based on tabel 2, it can be seen that the majority of respondents aged >20 years as many as 32 respondents (57.1%) and minorities aged 21-45 years as many as 24 respondents (42.9%).

**Table 3. Characteristics of Respondents Based on Education at Rsud Pidie Jayain 2022**

| No. | Education                  | f  | Percentage |
|-----|-----------------------------|----|------------|
| 1   | Elementary/Junior High School | 12 | 21.4       |
| 2   | High School/Vocational School | 30 | 53.6       |
| 3   | College                     | 14 | 25.0       |
| Total|                            | 56 | 100.0      |

Based on tabel 3, it can be seen that the education of the majority of high school / vocational school respondents was 30 respondents (53.6%) and the elementary / junior high school minority was 12 respondents (21.4%).

**Table 4. Characteristics of Respondents Based on Work at Rsud Pidie Jayain 2022**

| No. | Work         | f  | Percentage |
|-----|--------------|----|------------|
| 1   | Self employed| 5  | 8.9        |
Based on table 4, it can be seen that the majority of respondents of IRT and self-employed employees were 22 respondents (39.3%) and the minority of self-employed as many as 5 respondents (8.9%).

**Univariate Analysis**

The analysis carried out analyzes each variable of the research results. The purpose of this analysis is to explain / describe the characteristics of each of the variables studied.

Table 5. Frequency Distribution of Respondents Based on Maternal Knowledge at Pidie Jaya Hospital in 2022

| No. | Mother's Knowledge | f  | Percentage |
|-----|--------------------|----|------------|
| 1   | Good               | 23 | 41.1       |
| 2   | Less               | 33 | 58.9       |
|     | Total              | 56 | 100.0      |

Based on table 5 it can be seen that the knowledge of the majority respondents is less than 33 respondents (58.9%) and the minority is both as many as 23 respondents (41.1%).

Table 6. Frequency Distribution of Respondents Based on Culture at Rsud Pidie Jaya in 2022

| No. | Culture              | f  | Percentage |
|-----|----------------------|----|------------|
| 1   | Support              | 27 | 48.2       |
| 2   | Less Supportive      | 29 | 51.8       |
|     | Total                | 56 | 100.0      |

Based on table 6, it can be seen that the confidence of the majority respondents Less supported as many as 29 respondents (51.8%) and the minority supported as many as 27 respondents (48.2%).

Table 7. Frequency Distribution of Respondents Based on Trust at Rsud Pidie Jaya in 2022

| No. | Belief               | f  | Percentage |
|-----|----------------------|----|------------|
| 1   | Support              | 25 | 44.6       |
| 2   | Less supportive      | 31 | 55.4       |
|     | Total                | 56 | 100.0      |

Based on table 7, it can be seen that the culture of the majority respondents Less supported as many as 31 respondents (55.4%) and the minority supported as many as 25 respondents (44.6%).

Table 8. Frequency Distribution of Respondents Based on Family Support at Pidie Jaya Hospital in 2022

| No. | Family Support       | f  | Percentage |
|-----|----------------------|----|------------|
| 1   | Support              | 23 | 41.1       |
| 2   | Less supportive      | 33 | 58.9       |
|     | Total                | 56 | 100.0      |

Based on table 8, it can be seen that the family support of the majority respondents Less supported as many as 33 respondents (58.9%) and the minority supported as many as 23 respondents (41.1%).
Table 9. Frequency Distribution of Respondents Based on Maternal Independence at Pidie Jaya Hospital in 2022

| No. | Mother's Independence    | f   | Percentage |
|-----|--------------------------|-----|------------|
| 1   | Self-sufficient          | 20  | 35.7       |
| 2   | Lack of independence     | 36  | 64.3       |
|     | **Total**                | **56** | **100.0** |

Based on Table 9, it can be seen that the baby care independence of the majority respondents less independent as many as 36 respondents (64.3%) and independent minorities as many as 20 respondents (35.7%).

Bivariate Analysis

Tabulation and Statistical Test Results

Bivariate analysis was performed to determine the relationship of independent variables and dependent variables through Crosstabs or cross-tabulation. The statistical test carried out on this Bivariate analysis is to use the Chi-Square test with a 95% degree of confidence (α = 0.05). It is said to be related statistically if obtained a p value < 0.05.

Table 10. The Relationship between Maternal Knowledge and Independence of the baby's mother at Pidie Jaya Hospital in 2022

| Mother's Knowledge | Maternal independence | Sum | p (value) |
|--------------------|-----------------------|-----|-----------|
|                    | Self-sufficient       | Lack of independence |   |           |
|                    | f  | %  | f  | %  | f  | %  |   |           |
| Good               | 16 | 69.9| 7  | 30.4| 23 | 100|   | 0.000     |
| Less               | 4  | 12.1| 29 | 87.9| 33 | 100|   |           |
| **Total**          | 20 | 66  | 36 | 64  | 56 |    |   |           |

Based on Table 10, it can be seen that of the 23 respondents who have good knowledge, 16 respondents (69.6%) are independent in baby care and as many as 7 respondents (30.4%) are less independent in baby care. Of the 33 respondents who lacked knowledge, 4 respondents (12.1%) were independent in Newborn Care and as many as 29 respondents (87.9%) were less independent in Baby Care.

Based on the analysis of the Chi Square Test, a p-value of 0.000<0.05 was obtained so that it can be concluded that there is a relationship between knowledge and the independence of newborn care.

Table 11. Cultural Relationship with Independence of baby's mother at Rsud Pidie Jaya in 2022

| Culture        | Maternal independence | Sum | p (value) |
|----------------|-----------------------|-----|-----------|
|                | Self-sufficient       | Lack of independence |   |           |
|                | f  | %  | f  | %  | f  | %  |   |           |
| Support        | 15 | 60.0| 10 | 40.0| 25 | 100|   | 0.002     |
| Less supportive| 5  | 16.1| 26 | 83.9| 31 | 100|   |           |
| **Total**      | 20 | 66  | 11 | 64  | 56 |    |   |           |

Based on Table 11 it can be seen that from 25 respondents who have a supportive culture as many as 15 respondents (60.0%) are independent in baby care and as many as 10 respondents (40.0%) are less independent in baby care. Of the 31 respondents who have a less supportive culture, 5 respondents (16.1%) are independent in baby care and 26 respondents (83.9%) are less independent in baby care.
Based on the Chi Square Test analysis, the p-value is 0.002 < 0.05, so it can be concluded that there is a cultural relationship with the independence of infant care.

Table 12. The Relationship between Trust and Independence of the baby's mother at Pidie Jaya Hospital in 2022

| Belief            | Maternal independence | Sum | p (value) |
|-------------------|-----------------------|-----|-----------|
|                   | Self-sufficient | Lack of independence | f | % | f | % | f | %   |
| Support           | 16 | 59.3       | 11 | 40.7 | 27 | 100 | 0.001 |
| Less supportive   | 4  | 13.8       | 25 | 86.2 | 29 | 100 |
| Total             | 20 | 11         | 56 |      |   |     |

Based on table 12, it can be seen that of the 27 respondents who have supportive trust as many as 16 respondents (59.3%) are Independent in Baby care and as many as 11 respondents (40.7%) are less Independent in Baby care. Of the 29 respondents who had less supportive trust, 4 respondents (13.8%) were Independent in Baby Care and as many as 25 respondents (86.2%) were less Independent in Baby Care.

Based on the chi square test analysis, a p-value of 0.001 < 0.05 was obtained so that it can be concluded that there is a relationship between trust and independence of baby care.

Table 13. The Relationship between Mother's Age and The Independence of the baby's mother at Pidie Jaya Hospital in 2022

| Mother's Age | Maternal independence | Sum | p (value) |
|--------------|-----------------------|-----|-----------|
|              | Self-sufficient | Lack of independence | f | % | f | % | f | %   |
| >20 Years    | 16 | 50.0       | 16 | 50.0 | 32 | 100 | 0.001 |
| 21-45 Years  | 4  | 16.7       | 20 | 83.3 | 24 | 100 |
| Total        | 20 | 16.7       | 36 | 83.3 | 56 |      |

Based on table 13, it can be seen that of the 32 respondents who have a > age of 20 years, 16 respondents (50.0%) are Independent in Baby care and as many as 16 respondents (50.0) are less Independent in Newborn Care. Of the 24 respondents aged 21-45 years, 4 respondents (16.7%) were Independent in Baby Care and as many as 20 respondents (83.3%) were less Independent in Baby Care.

Based on the Chi Square Test analysis, a p-value of 0.001 < 0.05 was obtained so that it can be concluded that there is a relationship between age and independence of baby care.

Table 14. The Relationship between Family Support and Independence of newborn mothers at Pidie Jaya Hospital in 2022

| Family Support | Maternal independence | Sum | p (value) |
|---------------|-----------------------|-----|-----------|
|               | Self-sufficient | Lack of independence | f | % | f | % | f | %   |
| Support       | 14 | 60.9       | 9  | 39.1 | 42 | 100 | 0.003 |
| Less supportive | 6  | 18.2       | 27 | 81.8 | 12 | 100 |
| Total         | 20 | 18.2       | 36 | 81.8 | 56 |      |
9 respondents (39.1%) were less Independent in Baby care. Of the 33 respondents who had unsupportive family support, 6 respondents (18.2%) were Independent in Baby Care and 27 respondents (81.8%) were less Independent in Baby care.

Based on the Chi Square Test analysis, a p-value of 0.003<0.05 was obtained so that it can be concluded that there is a relationship between family support and independence for baby care.

**Multivariate Analysis**

This analysis is to see the influence (relationship) between independent variables on dependent variables and the type of logistic regression analysis so that independent variables are obtained that most dominantly affect dependent variables. Logistic regression is an approach to creating a predictive model just like linear regression or what is commonly referred to as Ordinary Least Squares (OLS) regression. The difference is that in logistic regression, researchers predict bound variables that scale dichotomously. The dichotomous scale in question is a nominal data scale with two categories, for example: Yes and No, Good and Bad or High and Low. obtaining the appropriate equation and getting the odds ratio value that has been adjusted logistic regression formula (Ardiana et al., 2021).

**Table 15. Influence of Knowledge, Culture, Trust, Maternal Age and Family Support with Mother's Independence to Care for Babies at Pidie Jaya Hospital in 2022**

| Variable      | B     | Sig.  | Exp(B) |
|---------------|-------|-------|--------|
| Knowledge     | 1.486 | .000  | 21.483 |
| Culture       | 3.067 | .002  | 9.783  |
| Belief        | 2.281 | .001  | 2.409  |
| Mother's age  | .879  | .001  | 4.421  |
| Family support| 1.501 | .003  | 4.488  |

Based on Table 15 after a logistic regression test, it is known that the variables of knowledge, culture, belief / religion, mother's age and family support have a p-value of < 0.05 That is, the five variables interact with each other to affect the independence of mothers caring for babies at Pidie Jaya Hospital in 2022.

Furthermore, a multivariate analysis to determine the magnitude of the influence of these five variables on the independence of the mother to care for the baby which is indicated by the value of Exp (B) or also called the Odds Ratio (OR), namely (Anshori & Iswati, 2019); (1) The maternal knowledge variable with an Odds Ratio value of 21,483 means that respondents who give opinions on the importance of maternal knowledge are 21 times likely to affect the mother's independence in caring for the baby; (2) Cultural Variables with an Odds Ratio value of 9,783 means that respondents who give opinions on the importance of culture have a 9 times chance of affecting the independence of mothers caring for babies; (3) The trust variable with an Odds Ratio value of 2,409 means that respondents who give opinions on the importance of trust / religion have a 2 times chance of affecting the mother's independence to care for the baby; (4) The Maternal Age Variable with an Odds Ratio value of 4,421 means that respondents who give opinions on the importance of Maternal Age have a 4 times chance of affecting the mother's independence in caring for the baby; (5) The family support variable with an Odds Ratio value of 4,488 means that respondents who give opinions on the importance of family support are 4 times more likely to affect the mother's independence to care for the baby.

So it can be concluded that the most dominant factor influencing the independence of mothers caring for babies is Knowledge with an Odds Ratio value of 21,483 meaning that respondents
who give an opinion on the importance of knowledge have 21 times the opportunity to influence the independence of mothers caring for babies in Pidie Jaya Hospital in 2022.

The Effect of Mother's Knowledge on Mother's Independence in caring for babies at Pidie Jaya Hospital in 2022

Knowledge is the most important thing in a person's actions, including baby care. Without knowledge, someone will not be able to take care of the baby properly, it takes knowledge of the right type of care, methods and techniques in every step of care. Knowledge is the result of knowing or what the respondent knows about newborn care.

Based on the results of the study, it can be seen that from 23 respondents who have good knowledge as many as 16 respondents (69.6%) are independent in baby care and as many as 7 respondents (30.4%) are less independent in baby care. Of the 33 respondents who lack knowledge, 4 (12.1%) are independent in caring for newborns and 29 respondents (87.9%) are less independent in infant care.

Based on the Chi Square Test analysis, the p-value is 0.000 <0.05 so it can be concluded that there is a relationship between knowledge and independence in infant care.

In baby care, mother's independence and knowledge are needed. This is in accordance with Notoatmojo, (2007) that behavior based on knowledge will be more lasting than one that is not based on knowledge. Experience is a source of knowledge. Experience makes a person able to learn about a problem or experience can be used as a way to obtain the truth of knowledge. The independence of the respondent in bathing the baby can be influenced by various factors including the mother's willingness, education, experience, and knowledge that can be obtained from various sources such as: counseling from health workers about caring for the umbilical cord, exclusive breastfeeding or bonding between mother and baby (i.e. by midwives, doctors and nurses) while at home giving birth before going home, or from electronic media and others (Notoatmodjo, 2012).

According to the researcher's assumptions, a young mother (primipara) is more often faced with difficult situations, where she is treated as a mother who still lacks experience, knowledge and skills in caring for her baby. Especially when it comes to bathing babies and caring for the umbilical cord, which so far have been entrusted to people who are more skilled, such as older siblings or parents who already have experience in baby care. They are considered as people who have the main ability in terms of bathing and caring for the umbilical cord. The family of Primipara Mother cannot yet entrust the care of newborns to their mothers directly, because they think that the mother has no experience in caring for newborns and still feels sorry for the baby's mother is still in a condition that has not yet recovered from the delivery process. Moreover, if the young mother is still classified as lacking in terms of age, intelligence and level of education. These three factors are indeed internal factors that affect a person's independence in acting.

A woman who has her first birth (primipara), often does not know how to care for a baby, has no experience in childbirth, and does not know what to do after the baby is born. In Javanese culture, the parents of the prospective mother always play a role in the care of the baby. Prospective mothers are considered not to know, will not be able and inexperienced in providing care for their babies. This condition has an impact on the attitude of the mother-to-be's dependence on the people around her. Physically, after undergoing the process of giving birth, women tend to be weak. However, in a few days it is hoped that a primiparous mother can start to be involved in caring for her baby, including bathing the baby, changing baby clothes, caring for the baby's umbilical cord, giving breast milk and so on. Midwives as midwifery service providers, must be able to provide useful care for mothers from the time of delivery. Thus, these primiparas will be able to care for their babies independently as soon as
the baby is born. One of the activities that can be carried out by midwives is to carry out health education through service programs during childbirth at the hospital. Antenatal care is a means to learn together about health for postpartum mothers, in the form of face-to-face in groups. This activity aims to increase knowledge and skills of mothers regarding pregnancy, pregnancy care, childbirth, postpartum care, newborn care, myths about pregnancy, infectious diseases and baby birth certificates.

The Influence of Culture on maternal Independence to care for babies at Pidie Jaya Hospital in 2022

Culture is an activity that is ingrained into a custom or habit in the area or a group regarding the care of newborns. Based on the results of the study, it can be seen that of the 25 respondents who have a supportive culture as many as 15 respondents (60.0%) are independent in baby care and as many as 10 respondents (40.0%) are less independent in baby care. Of the 31 respondents who have a less supportive culture, 5 respondents (16.1%) are independent in baby care and 26 respondents (83.9%) are less independent in baby care.

Based on the Chi Square Test analysis, the p-value is 0.002 <0.05 so it can be concluded that there is a cultural relationship with the independence of infant care. According to the researchers' findings, Aceh's socio-cultural factors play an important role in understanding attitudes and behavior in response to pregnancy, birth, and care for babies and their mothers. Some of the cultural views in Aceh regarding these matters have been passed down from generation to generation in the culture of the community concerned. Culture is all socially inherited characteristics that can be passed down from generation to generation. Culture is formed by values, beliefs, norms, and behaviors formed by groups with the same background. Cultural guidelines are thought to be carried out and expressed, because this tradition is passed down it will become cultural values that are reflected in each individual and family.

Some aceh cultures give high priority to having sons, women who give birth to sons receive a higher status in the family. This kind of culture is usually found in the Acehnese, Mandailing, Batak and traditional Chinese families. In traditional Hispanic families, grandmothers are expected to play a role in caring for the newborn. The task of caring for children is considered the duty of a mother and the task of a father is only to earn a living, which is assumed by a mother to be able to care for and guide children, manage the household and carry out all the work in the household.

Based on the results of interviews with Acehnese respondents, the food that is often given to babies when the mother's milk has not come out is water, ripe bananas that are scraped with a spoon and then given to babies, starch water, formula milk and others. People also believe that the first yellow breast milk or colostrum should not be given to babies because it is considered dirty and stale breast milk. Another tradition or culture that is often followed is that a baby should not be taken out of the house, so that it is not exposed to the sun, before the descent ceremony is held for the baby. The wrong habits and traditions of the community in the treatment process are included in the provision of nutrition. Health workers who are responsible for providing health information to the community by implementing a strategy that takes into account the cultural elements of the community.

The Influence of Trust on the Independence of mothers to care for babies at Pidie Jaya Hospital in 2022

Belief/religion is a belief that is based on the religion adhered to regarding the care of newborns. Based on the results of the study, it can be seen that of the 27 respondents who have supportive beliefs as many as 16 respondents (59.3%) are independent in baby care and 11 respondents (40.7%) are less independent in baby care. Of the 29 respondents who have less
supportive beliefs, 4 respondents (13.8%) are independent in baby care and 25 respondents (86.2%) are less independent in baby care.

Based on the Chi Square Test analysis, the p-value is 0.001 <0.05 so it can be concluded that there is a relationship of trust with the independence of infant care. Baby care that is carried out from the age of birth is very influential on its development and growth. Baby care in each area of course has its own uniqueness in accordance with the beliefs of the local community. The belief that applies to the Acehnese tribe in Pidie Jaya, how to care for and care for babies is also of course still very tied to the culture and beliefs there, focused on how mothers take care of their babies.

**Effect of Maternal Age on Mother's Independence in caring for babies at Pidie Jaya Hospital in 2022**

Age indicates the development of the ability to learn and form the required teaching behavior. Age can affect a person's physical, psychological and cognitive maturity. A person's maturity can develop by learning from oneself or the experiences of others. This age factor is related to the level of maturity and mental readiness of the mother in child care. Many young mothers do not pay attention to how to care for babies properly so that many babies become fussy because they are not properly cared for. At a young age, postpartum care carried out will be different from mothers who are more mature, where mothers who are more than 35 years old feel that caring for a newborn is physically exhausting.

Based on the table above, it can be seen that of the 32 respondents who are > 20 years old, 16 respondents (50.0%) are independent in caring for babies and 16 respondents (50.0) are less independent in caring for newborns. Of the 24 respondents aged 21-45 years, 4 respondents (16.7%) were independent in infant care and 20 respondents (83.3%) were less independent in infant care.

Based on the Chi Square Test analysis, the p-value is 0.001 <0.05 so it can be concluded that there is a relationship between age and independence in infant care.

A woman will experience the process of pregnancy, childbirth, and breastfeeding as one of the processes of her life. The changes experienced at that time became one of the causes of the emergence of symptoms at each stage. A mother must be able to adapt to these changes. Pregnancy is a dramatic process that requires an adaptation process to deal with it. A primigravida mother is a woman's first pregnancy experience, the birth of her first child is a crisis situation for a woman because her life experiences changes in her roles and lifestyle. The crisis most commonly occurs in primigravida mothers, this is influenced by the lack of experience in the skills possessed by the mother in carrying out independent care for herself and her baby after giving birth.

According to the findings of researchers Age is one of the factors that affect a person's physical and mental readiness in dealing with problems. At the age of young mothers, postpartum care carried out will be different from mothers who are more mature where mothers who are more than 35 years old feel that caring for newborns is physically exhausting. The factors that influence a person to do something include the level of education and work, where a better level of education can encourage someone to get or be willing to do something in order to achieve the expected goals. Education can affect a person, including a person's behavior in life patterns, especially in motivating the attitude of participation in health development according to Handayani (2009) in Esther (2010). Multiparas will be more realistic in anticipating their physical limitations and can more easily adapt to their roles. Age is one of the factors that affect a person's physical and mental readiness in dealing with problems. At the age of young mothers, postnatal care carried out will be different from mothers who are more mature where mothers who are more than 35 years old feel that caring for newborns is physically exhausting. The
factors that influence a person to do something include the level of education and work, where a better level of education can encourage someone to get or be willing to do something in order to achieve the expected goals (Carpenito et al., 1999).

The Effect of Family Support on the Independence of Mothers caring for babies at Pidie Jaya Hospital in 2022

The role of the mother in caring for the baby is influenced by supporting factors such as the support of the closest people, namely family support and accompanied by the attitude of support from health workers. Family support is the first support that is very influential when a mother becomes a new parent because it is the mother who will take responsibility for the care of her baby. Support from all factors such as family support in providing information is an important factor in the mother's efforts to care for her baby. With the provision of support will improve the behavior of the mother in her ability to care for the baby.

Based on the results of the study, it can be seen that from 23 respondents who have family support that supports as many as 14 respondents (60.9%) are independent in baby care and as many as 9 respondents (39.1%) are less independent in baby care. Of the 33 respondents who had unsupportive family support, 6 respondents (18.2%) were independent in infant care and 27 respondents (81.8%) lacked independence in infant care.

Based on the Chi Square Test analysis, the p-value is 0.003 <0.05, so it can be concluded that there is a relationship between family support and independence in infant care.

The ability of mothers to care for babies also requires support from health workers such as health workers who are trained and understand the correct baby care procedures. The role and support of health workers is the first to help mothers in achieving their success. Encouragement from health workers is very beneficial and can influence primiparous mothers to have a higher intention to explore their abilities in caring for their babies. The positive attitude given by health workers is able to motivate primiparous mothers.

Health workers, especially nurses, play an important role in influencing the behavior of postpartum self-care mothers. Nurses are people who carry out their actions based on knowledge and have clear skills in their expertise. In addition, nurses also have the authority and responsibility in service-oriented actions through providing nursing care to individuals, groups, or families. The provision of nursing care can be done by nurses by paying attention to the basic needs of patients. In hospitals, nurses are the closest people to patients, therefore nurses must know the needs of their patients.

According to the research findings, family support is very influential when the mother becomes a new parent because the mother will take responsibility for the care of the baby such as bathing the baby, caring for the umbilical cord, carrying and breastfeeding the baby. The adjustments that the mother made started from the first day she became a mother, at which time the mother needed help and support from the people around her, especially her husband, parents, and other family members. Mothers also begin to find out what kind of postnatal care they and their babies need. Usually mothers will find out through people around them such as parents and other families who are experienced in this matter. This is a benchmark why mothers really need family social support, both from husbands, parents, and other family members. Social support is also one of the factors that support psychological well-being, where the support from the family given to the mother will reduce the stress and anxiety she experiences and the mother's psychological condition will tend to improve. Family social support is the support that mothers get from their husbands, parents, and other members of the mother's family in the form of providing direct assistance or providing a sense of security and comfort to the mother. Real forms of support that can be given by husbands include paying attention to their wives, good two-way communication between the two, and intimate emotional relationships.
Conclusion

There is an influence of knowledge on the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital. There is a cultural influence on the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital. There is an influence of trust on the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital. There is an effect of maternal age on the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital. There is an effect of family support on the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital. There is a dominant factor of knowledge on the independence of primiparous mothers in caring for babies in Pidie Jaya Hospital with an Odds Ratio of 21.483. It is hoped that the government of TK I and TK II will encourage newlyweds to learn and find out about how to care for babies properly and correctly in order to prevent the infectious disease Tetanus Neonatorum which can endanger the baby's life. It is necessary to cultivate the independence of young mothers who are giving birth for the first time so that they understand how to properly care for babies in health. It is hoped that this research can be used as a reference material for hospitals, especially optimizing the education of midwives in order to maximize mother's knowledge during hospitalization so that she can independently care for her baby at home according to the rules of trust. Encouraging young mothers to increase their knowledge about the independence of caring for babies. Provide counseling for families/parents of primiparous mothers so that they can help provide assistance in caring for babies in the early days of labor until mothers can independently take care of their babies.

References

Aceh D. (2020). Laporan Kinerja Dinas Kesehatan Aceh Tahun 2020.
Anshori, M., & Iswati, S. (2019). Metodologi penelitian kuantitatif: edisi 1. Airlangga University Press.
Ardiana, D. P. Y., Mawati, A. T., Supinganto, A., Simarmata, J., Yuniwati, I., Adiputra, I. M. S., ... & Purba, S. (2021). Metodologi Penelitian Bidang Pendidikan. Yayasan Kita Menulis.
Arianto, F. (2017). Gambaran Pengetahuan dan Sikap Ibu Postpartum Primipara Tentang Perawatan Bayi Baru Lahir di Ruang Seruni RS. PMI Kota Bogor.
Carpenito, L. J., Ester, M., & Kp, S. (1999). Rencana Asuhan & Dokumentasi Keperawatan: Diagnosa Keperawatan dan Masalah Kolaboratif.
Dahlan, M. S. (2011). Statistik untuk kedokteran dan kesehatan. Bandung: Penerbit Salemba.
Eveline, D., & Djamaludin, N. (2010). Panduan pintar merawat bayi dan balita. Jakarta: Wahyu media
Fitrah, M. (2018). Metodologi penelitian: penelitian kualitatif, tindakan kelas & studi kasus. CV Jejak (Jejak Publisher).
Hardjito, K., Antono, S. D., & Yani, E. R. (2017). Perbedaan Peran Ibu Primipara Dan Multipara Dalam Pengasuhan Bayi Baru Lahir. Jurnal Ilmu Kesehatan, 3(2), 12-19.
Herawati, T. (2015). Kemandirian Ibu Nifas Primipara Dan Perawatan Bayi Baru Lahir. Jurnal Keperawatan Terapan, 1(1).
Hidayat, A. A. (2009). Metodologi penelitian keperawatan dan teknik analisis data. Jakarta: Salemba Medika.
Liu, D. T. (2007). Manual persalinan. Jakarta: EGC.
Matondang, Z. (2009). Validitas dan reliabilitas suatu instrumen penelitian. Jurnal tabularasa, 6(1), 87-97.
Notoatmodjo S. (2012). *Metodologi Riset Keperawatan*. Jakarta: Rinekacipta.

Notoatmodjo, S. (2012). Metodologi penelitian kesehatan (Cetakan VI). *Jakarta: Penerbit PT. Rineka Cipta*.

Prasetyo, B., & Jannah, L. M. (2006). *Metode Penelitian Kuantitatif: Teori dan Aplikasi*, Jakarta: PT. *Raja Grafindo Persada*, 20.

Stright, B. R. (2001). *Keperawatan ibu-bayi baru lahir*. Jakarta: EGC.

Sukardi, H. M. (2021). *Metodologi Penelitian Pendidikan: Kompetensi Dan Praktiknya (Edisi Revisi)*. Bumi Aksara.

Swarjana, I. K., SKM, M., & Bali, S. T. I. K. E. S. (2015). *Metodologi Penelitian Kesehatan [Edisi Revisi]: Tuntunan Praktis Pembuatan Proposal Penelitian untuk Mahasiswa Keperawatan, Kebidanan, dan Profesi Bidang Kesehatan Lainnya*. Penerbit Andi.

Winangsih, R., & Sariyani, M. D. (2021). Gambaran Pengetahuan HIV/AIDS Pada Ibu Rumah Tangga Di Desa Sambirenteng Kecamatan Tejakula Kabupaten Buleleng Tahun 2020. *Jurnal Medika Usada*, 4(1), 34-39.