

## Analysis of Food Taboo and Food Belief Compliance in Anemic Pregnant Women at Tuntang Community Health Center

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### Abstract.

**Background:** Anemia in pregnancy is defined as a hemoglobin concentration  $\leq 11.0$  g/dL. Inadequate diet can be caused by a culture of food taboo and food belief, this causes pregnant women to be at high risk of experiencing anemia. **Objective:** The aim of this study was to analyze the compliance of anemic pregnant women with food taboos and food beliefs. **Methods:** This research uses qualitative methods with an ethnological design. This research design was carried out using in-depth interviews. There were 9 research informants, namely 5 pregnant women with anemia and 4 additional informants. Audio recordings were transcribed and analyzed using thematic analysis. **Results:** The level of compliance of anemic pregnant women at the Tuntang health center towards the culture of food taboo and food disbelief is high. They tend to comply with input regarding intake from the family. Pregnant women who still adhere to this culture admit that they have followed this culture since their first pregnancy. Foods they avoid include goat meat, eggs and papaya leaves. Medical personnel play a role in providing education to pregnant women through routine examinations, classes for pregnant women, and providing additional food. Knowledge of anemic pregnant women at the Tuntang health center is quite good. **Conclusion:** Food taboo and food belief attitudes and habits are still adhered to due to family influence. They often get nutritional information through advice from medical personnel.

**Keywords:** Food belief; food taboo and anemic pregnant women.

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## I. INTRODUCTION

Anemia during pregnancy is defined as a concentration of  $\leq 11.0$  g/dl.<sup>1</sup> The percentage of anemia tends to be higher in the second trimester.<sup>2</sup> Pregnant women with anemia are at risk of postpartum hemorrhage because low hemoglobin levels can affect uterine muscle contractions during labor.<sup>3</sup> One cause of anemia during pregnancy is inadequate diet, such as food taboos and food beliefs.<sup>4</sup> Food taboos are groups of foods that are avoided in some cultures in Indonesia during pregnancy, while food beliefs are foods that are believed to provide benefits to pregnant women.<sup>5</sup> Food taboos are groups of foods that are avoided in some cultures in Indonesia during pregnancy, while food beliefs are foods that are believed to provide benefits to pregnant women.<sup>6</sup>

The research question of this study is: What is the compliance of anemic pregnant women with food taboos and food beliefs? The objectives of this study are To analyze the compliance of anemic pregnant women with food taboos and food beliefs. The prevalence of anemia among pregnant women at the Tuntang Community Health Center from June to August 2023 reached more than 50% of the total pregnant women studied. Many of them still believe in food taboos and food beliefs. Therefore, based on this background, the researcher was interested in investigating the level of compliance of pregnant women with anemia towards food taboos and food beliefs with the research title "Analysis of Compliance with Food Taboos and Food Beliefs in Pregnant Women with Anemia at the Tuntang Community Health Center."

## II. METHODS

This research is qualitative in nature with an ethnographic research design. The research was conducted in December 2023 with a population and sample of 5 pregnant women in their second trimester who were anemic, 2 families who lived at home and always accompanied the pregnant women, and 2 midwives/nutritionists from the health center. Data were obtained using primary data through in-depth interviews using purposive sampling techniques with informants who met the inclusion and exclusion

criteria. The tools used to complete the research were interview drafts, voice recorders, and laptops. Data analysis in this study employed thematic analysis. Ethical clearance was obtained from the Health Research Ethics Committee (KEPK) of the Semarang Health Polytechnic under No. 1228/EA/KEPK/2023.

### III. RESULT AND DISCUSSION

The analysis yielded two major themes. Theme 1, Internal factors influencing compliance with food taboos and food beliefs, consisted of three sub-themes and eight categories. Theme 2, External factors influencing cultural compliance with food taboos and food beliefs, was divided into two sub-themes and four categories. The following are the results of the analysis:

#### **Individual Factors Influencing Pregnant Women's Compliance with Food Taboos and Food Beliefs.**

This theme consists of 4 sub-themes, namely: high individual compliance with food taboos and food beliefs, agreement that nutrition during pregnancy is important, pregnant women's attitudes towards food taboos and food beliefs are still strong, and the habit of practicing food taboos and food beliefs is still carried out.

##### **a. High Individual Compliance with Food Taboos and Food Beliefs**

This sub-theme consists of five categories: suboptimal nutritional knowledge, lack of understanding of nutrition during pregnancy, low motivation for nutritional intake among pregnant women, misconceptions about food taboos and beliefs, and insufficient/limited information about nutritional intake.

##### **1. Insufficient Nutritional Knowledge**

This category shows that pregnant women only consider foods containing animal protein or vegetable protein to be good sources of nutrition. The following are the results of the informant interviews:

*"I know more or less... foods that are rich in protein, calcium, vitamins, soybeans, meat protein" (I2)*

*"Healthy and nutritious foods, such as vegetables and fruits" (I3)*

##### **2. Nutritional Views on Intake During Pregnancy Not Yet Understood**

The interview results show that pregnant women consider foods that do not make them nauseous to be good foods. The following are the results of the informant interviews:

*"Relatively, there are no restrictions, foods that don't make me nauseous, every pregnant woman is different, right... every parent sometimes recommends eating this and that, but for me, thank God, it doesn't make me nauseous... I consider the intake to be still good..." (I1)*

##### **3. Self-Motivation for Low Nutritional Intake in Pregnant Women**

Pregnant women still tend not to pay attention to their daily intake. Here are the results of the interview:

*"...twice in the morning and during work breaks...just snacking to feel full...I consume it, but only if I remember, hahaha, because I'm busy working, so I often forget" (I1)*

*"It was my first time getting checked at the health center..." (I1)*

*"...I often eat spinach in the morning; oh, spinach also contains iron, right? I don't like red meat, and I rarely eat eggs" (I3)*

*"...I rarely eat meat during pregnancy, but I do like eggs" (I4)*

*"...I rarely do, sis, because I have trouble swallowing pills like that." (I5)*

*"...the tea isn't sweet, maybe once a day, but I can't go without ice, ma'am... I've heard that tea affects anemia... hahaha, I still drink coffee, ma'am, but not that often, maybe three times a week" (I1)*

##### **4. Perspectives on Food Taboos and Food Beliefs Still Held by Parents**

Pregnant women's views on this culture tend to originate from their own parents. The following are the results of the informants' interviews:

*"We believe what our parents say; if they say it, we do it... mostly from our own parents." (I2)*

*"Yes, we believe in myths during pregnancy, like the foods and drinks that my mother-in-law tells me to eat so that the baby will be healthy or sick." (I4)*

*"Food is believed to affect pregnant women and babies, like what my mother-in-law usually tells me to drink coconut water so the baby will be fair-skinned" (I5)*

## 5. Information on Nutritional Intake is Sufficiently Good and Comes from Various Sources

Pregnant women tend to obtain information through the internet. Here are the results of the interviews:

*"Browsing various media can provide a lot of information" (I1)*

### b. Agree That Nutritional Intake During Pregnancy Is Important

This subtheme is formed from one category that emerged, namely agreement that nutritious intake is important for pregnancy.

#### 1. Agree that nutritious intake is important for pregnancy

Pregnant women believe that animal protein and green vegetables are important during pregnancy. Here are the interview results:

*"...if it contains iron, then it's meat, ma'am, eggs are also important because they contain protein" (I1)*

*"...like the foods mentioned earlier that contain protein and vitamins...calcium" (I2)*

*"Foods containing iron, yes, they're important for pregnancy, I often eat spinach in the morning"*

### c. Pregnant Women's Attitudes Supporting Food Taboos and Food Beliefs

This subtheme is formed from two categories: pregnant women who still practice food taboo and food belief culture, and pregnant women who comply with family input.

#### 1. Pregnant Women Still Practicing Food Taboo and Food Belief Culture

The results of the interviews with informants show that pregnant women's attitudes are compliant with food taboo and food belief cultures. Foods they consider taboo include meat, eggs, papaya leaves, and bitter melon. Meanwhile, coconut water is believed to be a good source of nutrition for pregnancy. The following are the results of the interviews:

*"Yes, goat meat can make the baby weak when it's born... if I go out and the menu includes goat meat, I don't eat it..." (I4)*

*"Yes, they say eggs can make breast milk smell bad..." (I5)*

*"Yes, they say you shouldn't eat bitter melon, because it can cause the placenta to break down..." (I5)*

*"...usually they tell you to drink coconut water so the baby will be fair-skinned" (I1)*

#### 2. Pregnant Women Obey Family Advice

Pregnant women tend to still comply with dietary advice given by their families. This is supported by the following statements:

*"If it's from me, if I'm told not to eat this or that, I usually just follow what my mother-in-law or mother says because they're stricter about food since they're older, hahaha, so I just obey" (I2)*

### d. The Practice of Food Taboos and Food Beliefs Still Exists

This subtheme consists of two categories: frequent consumption of unhealthy foods and long-standing adherence to food taboos and beliefs.

#### 1. Frequent Consumption of Unhealthy Foods

Pregnant women here often consume foods that are not recommended during pregnancy. They still consume fruits that contain alcohol and drink tea that can cause anemia. The following are the results of the interviews:

*"Well, for example, longan fruit contains alcohol, but as long as I still feel comfortable eating it, then it's fine." (I1)*

*"Sometimes I drink tea when I feel like it, sometimes after eating, like iced tea..." (I4)*

#### 2. Long-Term Practice of Food Taboos and Food Beliefs

Most informants said the same thing about the length of time they had been practicing this culture. They admitted to practicing this culture since the beginning of their pregnancy. Here are their statements:

*"From my first pregnancy until now" (I2)*

*"...there's no specific time...if there's a food that's forbidden for that day's menu, I look for another food, but as much as possible, the forbidden food doesn't enter the daily menu..." (I5)*

## **External Factors Influencing Pregnant Women's Compliance with Food Taboos and Food Beliefs**

This theme is formed from three subthemes: family support is not yet optimal, family knowledge about food taboos and beliefs is not yet optimal, and healthcare worker support is already optimal.

### **a. Family Support Not Yet Optimal**

This subtheme is divided into two categories: the family helps meet the pregnant woman's nutritional needs, and the family still adheres to food taboo and food belief culture.

#### **1. The Role of the Family in Helping to Meet the Nutritional Needs of Pregnant Women is Not Consistent**

Families play a role in supporting pregnant women financially or by helping to prepare their daily meals. The following are their statements:

*"It is fulfilled. Usually, my husband prepares food such as fruits or vegetables, but sometimes my mother also likes to prepare food for me" (I2)*

*"There are no difficulties, ma'am. Although I prepare my own meals, my husband provides the money to buy food that meets my nutritional needs, so there are no difficulties.... I cook myself because when you're pregnant, you have to be careful about what you eat, so it's better to cook yourself..." (I5)*

#### **2. The Role of Family in Dealing with Culture**

The family of the pregnant woman believes that the existing cultural practices that have been passed down through generations must be followed. Here are their statements:

*"Hmm... in my opinion, myths are usually passed down through generations, ma'am. In my village, there are certain foods that pregnant women are not allowed to eat." (KI2)*

### **b. Insufficient Family Knowledge Regarding Food Taboos and Food Beliefs**

This subtheme is divided into one category: insufficient family knowledge about food taboos and food beliefs.

#### **1. Knowledge Regarding Food Taboos and Food Beliefs is Still Lacking**

The interview results show that families consider protein-rich foods to be taboo. The following is a statement:

*"...for example, shrimp is taboo for pregnant women to eat" (KI5)*

*"....meat is good, but don't eat too much because it makes the child weak..." (KI5)*

### **c. Health Worker Support is Already Optimal**

This sub-theme is divided into three categories, namely the presence of health workers in nutrition education for pregnant women regarding food taboos and food beliefs is sufficient, support from health workers in educating pregnant women about nutritional fulfillment is good, and the provision of facilities for activities involving pregnant women is sufficient.

#### **1. The Presence of Health Workers in Nutrition Education for Pregnant Women Regarding Food Taboos and Food Beliefs is Adequate**

Health workers play a role in determining whether food taboos and myths can be practiced or not. The following are statements from informants:

*"Mmm... let me see first, if the myths and taboos are in line with nutritional recommendations, then I would recommend them, but if they are way off, then no... for example, foods that contain protein such as seafood, sometimes some pregnant women are told by their in-laws not to eat them, but in my opinion, it's still okay because they contain protein that pregnant women need." (B1)*

#### **2. Health Workers' Support in Nutrition Education for Pregnant Women Remains Diverse**

Health workers educate that every food contains important nutrients. However, there are slight differences in opinion between the two midwives. Here are the informants' statements:

*"Yes, as long as it doesn't deviate from nutritional recommendations, it's okay, but now, in my opinion, pregnant women are smart... that culture still exists among some pregnant women, but most pregnant women now understand what foods are important." (B1)*

*"Inform them that every food has its nutritional value, but don't overdo it... it depends on the recipient of the information, ma'am. Sometimes there are pregnant women who are stubborn and trust their mothers-in-law more, while others are obedient." (B2)*

### **3. Provision of Facilities for Activities Involving Pregnant Women is Adequate**

Health workers usually provide routine activities for pregnant women, such as classes for pregnant women and routine check-ups. The health center also provides assistance in the form of additional food. The following are statements from the informants:

*"Usually on Tuesday, Wednesday, and Saturday, there are complete check-ups for pregnant women, nutritional check-ups, nutritional consultations... usually after the check-up, each mother will be educated about nutrition, and the health center will provide assistance in the form of milk and biscuits for pregnant women with KEK" (B1)*

*"They provide a lot of support, like reassuring us that we don't need to worry during pregnancy, and sometimes there are prenatal classes in the village led by midwives, which are like educational sessions" (I5)*

## **Discussion**

### **High Individual Compliance with Food Taboos and Food Beliefs**

Individual compliance with food taboos and beliefs is still relatively high. This compliance is influenced by suboptimal knowledge, so that they still follow eating patterns that adhere to food taboos and beliefs. Pregnant women consider only foods containing animal or plant protein to be healthy and nutritious during pregnancy. In addition, they tend to associate foods that do not cause nausea and are comfortable during pregnancy as good foods. Other studies show a correlation between knowledge about nutrition and anemia. Good knowledge about nutrition can influence the eating behavior of pregnant women, so that they pay more attention to the nutritional quality of their diet.<sup>7</sup> Pregnant women's motivation to eat well during pregnancy is low, as they tend to eat only about twice a day due to their busy schedules. They are also irregular in taking iron pills because they have difficulty swallowing them, and they still often drink tea even though they know its negative effects on anemia. Tea consumption can interfere with the absorption of iron from other foods. Some pregnant women also admitted that they had only had their first pregnancy check-up at the community health center. Inadequate dietary patterns during pregnancy, with consumption of < 5 types of food per day and < 3 main meals per day, tend to increase the risk of anemia.<sup>9</sup> The information obtained by pregnant women mostly comes from the internet and social media, although some also obtain information from midwives or doctors.

### **Agree That Nutritional Intake During Pregnancy Is Important**

Pregnant women agree that nutritional intake during pregnancy is important. They believe that animal protein and green vegetables are important during pregnancy. The green vegetables mentioned by pregnant women here are spinach. Iron is abundant in dark green vegetables.<sup>10</sup> Previous studies have shown that hemoglobin levels increase after consuming spinach leaves.<sup>11</sup> Pregnant Women's Attitudes Toward Food Taboos and Food Beliefs. Interviews with pregnant women generally show that out of five pregnant women interviewed, four of them still adhere to food taboo and food belief culture. They still believe that foods such as goat meat can cause babies to be born with certain weaknesses. In addition, consuming eggs during pregnancy is considered to affect the smell of breast milk produced by pregnant women.

Papaya and bitter melon leaves are also considered to have negative effects, such as damaging the placenta. One pregnant woman even believed that consuming coconut during pregnancy could result in a baby with whiter skin. Previous studies have shown that pregnant women's negative attitudes toward food intake can contribute to the risk of anemia, while positive attitudes can help prevent anemia.<sup>12</sup> These findings are in line with this study, which shows that the majority of pregnant women who suffer from anemia have negative attitudes toward food intake. Pregnant women generally comply with the advice given by their parents. Generational beliefs can influence pregnant women's attitudes toward food, which is considered a form of respect for parents. Previous studies have shown that many food taboos are based on behaviors learned from family members who provide instructions or direct examples in practice.<sup>13</sup>

### **The Habit of Practicing Food Taboos and Food Beliefs is Still Practiced**

Pregnant women still often consume inappropriate foods during their pregnancy. Consumption of fruits containing alcohol and tea is still common during pregnancy. Iron absorption can be inhibited when consumed together with fruits containing alcohol such as durian, pineapple, and mangosteen.<sup>14</sup> The frequency with which pregnant women practice this culture is uncertain because they claim that, as much as possible, foods considered taboo are not included in their daily menu. Pregnant women claim that they have followed this culture since the beginning of their pregnancy. This is similar to previous studies, which found that many pregnant women adhere to food beliefs from the beginning of their pregnancy.<sup>15</sup>

### **Family Support is Not Yet Optimal**

The majority of pregnant women are assisted by their families in their daily intake. This assistance can be financial or in the form of helping to prepare their daily meals. It is also not uncommon for pregnant women to cook their own meals. Family support is very important here because it is the family who always accompanies pregnant women. Parents encourage pregnant women to follow the myths and food beliefs that they know. In previous studies, family was an important component because they are the ones who are with pregnant women every day. They remind pregnant women to follow every recommendation and restriction during pregnancy from a Javanese cultural perspective.<sup>16</sup>

### **Family Knowledge That Is Not Yet Optimal Regarding Food Taboos and Food Beliefs**

The families of pregnant women still consider certain foods taboo to eat. Shrimp, which is a food that contains a lot of protein, is considered taboo because it can cause the fetus to hide when it is about to be born. Meat is considered to make the baby weak at birth. The families of pregnant women themselves already believe in this culture from previous generations who gave them advice. Previous studies have mentioned that pregnant women have higher nutritional needs than those who are not pregnant. Foods such as seafood, eggs, shrimp, and squid are rich in protein and folic acid, which help maintain the body's immune system and aid in fetal development. Previous studies have shown that pregnant women who consume meat and eggs have Hb >11 g/dl, indicating that the consumption of iron-rich foods, as in this study, also affects the hemoglobin levels of pregnant women.<sup>18</sup>

### **Health Worker Support is Optimal**

Interview results show that pregnant women receive advice and education from health workers. Routine check-ups are always held every Tuesday, Wednesday, and Saturday. These examinations are followed by nutritional consultations after the results are available. The community health center provides additional food for pregnant women who experience chronic energy deficiency. In addition, midwives also provide psychological support to pregnant women. Education is also provided through classes for pregnant women in each village within the community health center's working area. The role of health workers in providing effective nutritional advice can be considered beyond their control, due to issues such as the implementation of knowledge by pregnant women themselves. This is in line with previous studies. They point to barriers in the delivery of advice from health workers, namely resources and basic nutrition education.<sup>19 20</sup>

### **Research Limitations**

During the research, the researchers encountered many difficulties in determining the compliance of pregnant women with food taboos and food beliefs. The wording of some questions was unclear, as evidenced by the fact that some informants did not understand the questions asked. Another limitation was the unfavorable conditions and room, and the interviews were conducted with local midwives, which caused the informants to lose focus when answering and the author to have to raise their voice slightly to explain some questions.

## **IV. CONCLUSION**

Based on the results and discussion of the research presented, the compliance of pregnant women is influenced by several factors. Internal factors include the lack of optimal nutritional knowledge among pregnant women, their lack of understanding regarding nutritional intake during pregnancy, low self-motivation for nutritional intake, and the fact that their views on food taboos and beliefs are still influenced

by their parents. The fulfillment of information regarding nutritional intake is quite good and comes from various sources. pregnant women agree that nutritional intake is important for pregnancy, pregnant women still practice food taboos and food beliefs, pregnant women tend to comply with family input, pregnant women tend to frequently consume improper nutrition, and pregnant women have practiced food taboos and food beliefs for a long time. External factors include the pregnant woman's family helping to meet her nutritional needs, the pregnant woman's family still adhering to food taboos and beliefs, and the family's knowledge of food taboos and beliefs still being insufficient.

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## REFERENCES

- [1] James Ah. Iron Deficiency Anemia In Pregnancy. *Obstetrics & Gynecology*. 2021 Oct 1;138(4):663–74.
- [2] K Jagadish Kumar, N Asha, D Srinivasa Murthy, Ms Sujatha, Vg Majunath. Maternal Anemia In Various Trimesters And Its Effect On Newborn Weight And Maturity: An Observational Study. *Int J Prev Med*. 2013 Feb;4(2):193–9.
- [3] Hani Nurul Hidayah, Fitria Primi Astuti, Chichik Nirmasari. The Relationship Between Anemia in Pregnant Women and Postpartum Hemorrhage at Ambarawa Regional General Hospital [Midwifery Study Program]. [Ungaran]: Ngudi Waluyo University; 2018.
- [4] Salulinggi Arnando, Aspin Elpira, Titaley C R, Bension Johan B. The Relationship Between Knowledge and Compliance of Pregnant Women in Consuming Iron Tablets and the Incidence of Anemia in South Leitimur and Teluk Ambon Districts. *Journal of Community Health Epidemiology*. 2021;6(1):229–36.
- [5] Risma Putri Utama. Research Article: Nutritional Status and the Incidence of Anemia in Pregnant Women. *Sandi Husada Health Science Journal*. 2021 Dec;10(2):689–94.
- [6] Kristya Am, Sitoayu L, Nuzrina R, Ronitawati P, Sa'pang M. Food Taboo Behavior Among Pregnant Women and Influencing Factors at the Pamarayan Community Health Center, Serang District, Banten. *Journal of Health Ecology*. 2021 Oct 18;20(2):139–51.
- [7] Purwanti Ita, Macfoedz Ircham, Wahyuningsih. Knowledge About Nutrition Related to Anemia Status in Pregnant Women at Sewon II Health Center, Bantul, Yogyakarta, 2012. *Indonesian Journal of Nutrition and Dietetics*. 2014 May;2(2):63–7.
- [8] Septiawan Yudi, Sugerta Erta. The Relationship Between Tea Drinking Habits and Anemia Incidence in Second Trimester Pregnant Women at the Kotabumi II Community Health Center, North Lampung Regency. *Health Journal*. 2015 Oct;6(2):117–22.

- [9] Gozali Wigutomo. The Relationship Between Dietary Patterns and Anemia Incidence in Pregnant Women in the Buleleng III Community Health Center Working Area. *International Journal of Natural Sciences and Engineering*. 2018;2(3):117–22.
- [10] Hermawan Dessy, Abidin Zaenal, Yanti Dwi. Green Vegetable Consumption and Anemia Incidence in Pregnant Women. *Holistic Health Journal*. 2020 Mar;14(1):149–54.
- [11] Misrawati, Asmi Nur, Marlia. Spinach Leaf Consumption to Increase Hemoglobin Levels in Pregnant Women. *Suara Forikes Health Research Journal*. 2022 Apr;13(2):345–8.
- [12] Sormin Roslin E. M., Nuhan Maria Vilastry, Atok Yosefa Sarlince. The Relationship Between Pregnant Women's Attitudes Towards Nutrition and the Incidence of Anemia During Pregnancy in the Working Area of the Sikumana Community Health Center, Kupang City, NTT. *Biotropical Science Journal*. 2020 Feb;17(1):11–8.
- [13] Chakona G, Shackleton C. Food Taboos and Cultural Beliefs Influence Food Choice and Dietary Preferences Among Pregnant Women in the Eastern Cape, South Africa. *Nutrients*. 2019 Nov 5;11(11).
- [14] Agustina Winda. Comparison of Hemoglobin Levels in Pregnant Women Who Consume Iron Tablets With and Without Vitamin C in the Working Area of the Langsa Lama Community Health Center in 2019. *National Journal of Health Sciences (Jnik) Lp2m Unhas*. 2019;2(2):76–87.
- [15] Rian Diana, Riris D. Rachmayanti, Faisal Anwar, Ali Khomsan, Dyan F. Christiani, Rendra Kusuma. Food Taboos and Suggestions Among Madurese Pregnant Women: A Qualitative Study. *Journal of Ethnic Foods*. 2018;5:246–53.
- [16] Murniasih Ni Putu, Masfiah Siti, Hariyadi Bambang. Pregnancy Care Behavior in the Javanese Cultural Perspective in Kaliori Village, Kalibagor District. *Indonesian Journal of Public Health*. 2016 Jan;8(1):56–66.
- [17] Rifah Muttimatur, Azza Awatiful, Kholifah Siti. The Relationship Between Cultural Practices of Food Restrictions During Pregnancy and the Incidence of Preeclampsia in the Working Area of the Tamanan Community Health Center, Bondowoso Regency [Thesis]. [Jember]: Muhammadiyah University of Jember; 2022.
- [18] Ahyani Septi, Sunarsih, Yuliyantia. Pregnant Women's Diet and the Incidence of Anemia. *Mj (Midwifery Journal)*. 2022 Dec;2(4):176–86.
- [19] Arrish J, Yeatman H, Williamson M. Midwives' Role In Providing Nutrition Advice During Pregnancy: Meeting The Challenges? A Qualitative Study. *Nurs Res Pract*. 2017;2017:7698510.
- [20] Prastiwi Ratih Sakti. Health Education as a Tool for Midwives in Changing Traditional Behaviors Among Indonesian Communities. *Jurnal Siklus*. 2019 Jun;8(2):137–43.