

THE RELATIONSHIP OF ATTITUDE, KNOWLEDGE, AND CULTURE OF FOOD ABSTINENCE OF TRIMETER PREGNANT MOTHERS WITH THE INCIDENCE OF CHRONIC ENERGY DEFICIENCY (CED) IN THE CLINIC WANASARI TELUKJAMBE WEST KARAWANG YEAR 2023

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Abstract

Background: According to WHO, the prevalence of CED in pregnant women in the world is around 38%, while in Indonesia it is 19.7%. One of the causes of pregnant women experiencing CED is the amount of food intake, age, attitudes of pregnant women, diseases/infections, the mother's knowledge about CED, family income, and the culture of the population living in rural areas. **Research purposes:** Knowing the relationship between the level of knowledge, culture, and attitudes of pregnant women in the first trimester with the incidence of chronic energy deficiency (KEK) at the Wanasari Clinic, Telukjambe Barat, Karawang in 2023 **Research methods:** Use *analytical descriptive* by design *cross-sectional* The research population was 52 respondents in the first trimester of pregnancy at the Wanasari Teluk Jambe Karawang Clinic. The research sample consisted of 31 respondents. *bivariate analysis* using the test *Wilcoxon*. **Research result:** Test results *Shapiro Wilk Test* earned value 0.519 ($p > 0.05$). So it can be concluded that there is no influence between knowledge and the incidence of KEK at the Wanasari Clinic in Telukjambe Barat. **Conclusions and recommendations:** The conclusion was that there was no relationship between the level of knowledge, culture, and attitudes of pregnant women in the first trimester with the incidence of chronic energy deficiency (KEK) at Wanasari Clinic Telukjambe Barat Karawang. **Suggestions** in this research are for educational institutions, for research sites, for respondents, and future researchers.

Keywords: Chronic Energy Deficiency (CED), First Trimester Pregnant Mother

Introduction

(Satyagraha, dkk, 2020) Chronic Energy Deficiency (CED) in pregnant women is a condition of pregnant women who experience malnutrition that lasts for a long time (chronic) and is characterized by the circumference of the pregnant woman's upper arms < 23.5 cm. Pregnant women need more nutrients than when they are not pregnant. This is caused by the nutrients consumed being used for the mother and fetus. The fetus grows by taking nutrients from the food consumed by the mother and from nutritional stores in the mother's body (Satyagraha, et al, 2020).

The World Health Organization (WHO) in 2019 reported that the prevalence of CED in pregnant women in the world was around 38% on average. (WHO, 2019)

While the incidence of CED in pregnancy in Indonesia in 2018 was 19.7% and decreased to 18.2% in 2019, the target to reduce CED in Indonesia was 16% and has been realized by 9.7% in 2020 (KEMENKES RI, 2020)

P percentage data SEZ pregnant women in West Java is 6.3%, while 27 other provinces have reached the expected target. DKI Jakarta is the province with the lowest percentage of KEK pregnant

women, namely 3.1%, while the provinces with the highest percentage of KEK pregnant women are West Papua (40.7%), East Nusa Tenggara (25.1%) and Papua (24.7 %) (KEMENKES RI, 2021).

The performance indicator target in 2022 is 13% with an achievement of 8.4%, so the performance indicator achievement of the Percentage of Pregnant Women with Chronic Energy Deficiency (KEK) has exceeded the target, namely 154.76%. In addition, during consecutive years from 2020 to 2022, achievement has improved, namely from 8.7% in 2021 to 8.4 in 2022 (KEMENKES RI, 2022).

Pregnancy with Chronic Energy Deficiency (KEK) is one of the indirect causes of maternal mortality in Indonesia, around 19.1%. Based on data in 2022 the number of pregnant mothers who experienced CED was 6.27% compared with in 2020, the total number of pregnant women was 55,629, an increase of 100% (Dinas Kesehatan Jawa Barat, 2022).

(Dinkes Kabupaten Karawang, 2022)The good nutritional status of pregnant women greatly determines the development and growth of the fetus which will also influence the smoothness of the birth process. In Karawang Regency, the prevalence of pregnant women experiencing CED in 2022 is 3297 pregnant women, this number is still far from the target expected by the government (Karawang Regency Health Office, 2022).

Factors that which is chronic energy deficiencies among others namely amount intake food, mother about, / infection, mother about SEZ, income family and and Population who which is in rural areas is closely related with economic which is quite low. Social economic is associated with poverty, low education, so level consumption food and nutrition become low, poor hygiene and sanitation, and increase health disorders (Wijayanti, 2020)

(Novitasari Y.D, dkk, 2023)This lack of knowledge can be caused by low education, employment, age, interests, experience, culture, and information about nutritional problems in pregnant women in Indonesia, which cannot be separated from local cultural factors. This is due to beliefs and taboos regarding certain foods so that pregnant women's food intake is less than what is needed which will cause CED (Chronic Energy Deficiency) (Novitasari Y.D, et al, 2023)

Fulfilling needs during pregnancy becomes a very important thing, by because, attitude and behavior mothers pregnancy also must be good. Attitude and behavior are influenced by knowledge. According to Simbolon (2019), assistance needs can influence knowledge, attitude and actions mothers in fulfilling nutritional needs during pregnancy. Apart from, at the next level, namely attitude is tendency tendency to act, in the form of closed responses to stimuli or certain objects. Attitude is not an actions or activity, will but is a tendency to perform actions or behavior (Nugraha, dkk, 2023).

(Data Klinik Wanasari, 2022)Based on a preliminary study conducted by the author at the Teluk Jambe clinic, it is known that the number of pregnant women from the 1st trimester to the early 2nd trimester at the Wanasari Teluk Jambe Barat clinic from July-December 2022 was 85 pregnant women in the 1st trimester and early 2nd trimester, with the number of mothers who LiLa <23cm as many as 19 pregnant women. This data shows that the rate of chronic energy deficiency (CED) is still very high and needs to be paid attention to because the target is expected to be the number of pregnant women in the first trimester who experience CED (0.5%) (Wanasari Clinic Data, 2022).

One one reason mother pregnant 1st trimester experience CED still be influence from knowledge mother pregnant 1st trimester who still lack about balanced nutrition which should be consumed, culture will local beliefs who is forbid to eat fruit fruit like pineapple, papaya, durian still very thick, and attitude mother who is reluctant to change menu food that is consumed every day (Data Klinik Wanasari, 2022). Based on background background above researchers are interested in conducting research with title “ Relationship Attitude, Knowledge And Culture Precautions Food Pregnant Women Trimeter I With Events Deficiency Energy Chronic (KEK) At Clinic Wanasari Telukjambe Barat Karawang Tahun 2023”.

Research Methods

Using *descriptive analytic* with design *cross sectional* The population research is mother pregnant 1st trimester at Clinic Wanasari Teluk Jambe Karawang as many as 52 respondents. Technique taking samples using formula Lemeshow so that obtained s samples research totaling 31 respondents. *analyst bivariate* e using *uji Wilcoxon*. *Variable dependent* namely lack of energy chronic, variable independent namely attitude, knowledge, and culture mother pregnant first trimester. Technique processing data using *Editing, Coding, and Tabulating*.

Research Result

1. Univariate Analysis

a. Respondent Characteristics

Table 5.1. Characteristics of respondents in Clinic Wanasari Telukjambe West Karawang Year 2023

| No | Variabel | Kategori | Frekuensi | % |
|----|------------------------|---|-----------|-------|
| 1. | Usia Ibu | Usia <20 th atau >35 th | 1 | 3 |
| | | Usia 20-35 th | 30 | 97 |
| | | Total | 31 | 100.0 |
| 2. | Pendidikan | Rendah <SLTA | 4 | 13 |
| | | Tinggi ≥ SLTA | 27 | 87 |
| | | Total | 31 | 100.0 |
| 3. | Paritas | Paritas >1 | 19 | 61 |
| | | Paritas 1 | 12 | 39 |
| | | Total | 31 | 100.0 |
| 4. | Kejadian Kek | Tidak KEK | 25 | 81 |
| | | KEK | 6 | 19 |
| | | Total | 31 | 100.0 |
| 5. | Pengetahuan | Baik | 28 | 90 |
| | | Cukup | 3 | 10 |
| | | Kurang | 0 | 0 |
| | | Total | 31 | 100.0 |
| 6. | Sikap | Baik | 23 | 74 |
| | | Sedang | 8 | 26 |
| | | Kurang | 0 | 0 |
| | | Total | 31 | 100.0 |
| 7. | Budaya Pantangan Makan | Tidak Percaya | 28 | 90 |
| | | Percaya | 3 | 10 |
| | | Total | 31 | 100.0 |

Based on table 5.1, it can be seen from the 31 respondents who were examined that the majority age category was 20-35 as many as 30 respondents (97%), and for mothers aged <20 - >35 years as many as 1 respondent (3%). For the majority high education category ≥ high school, there were 27 respondents (87%) while category low education < high school there were 4 respondents (13%). For the parity category, the majority had parity > 1, namely 19 respondents (61%), while parity 1, namely 12 respondents (39%). For the KEK event category, the majority were not KEK as many as 25 respondents (81%), while those with KEK were 6 respondents (19%). For the knowledge category, the majority of knowledge was good, namely 28 respondents (90%) while the category sufficient knowledge was 3 respondents (10%). For the attitude category, the majority were good, namely 23 respondents (74%) and in the moderate attitude category there were 8 respondents (26%). Meanwhile, for the cultural category of food taboos, the majority do not believe, namely 28 respondents (90%) and for the category of believe, there are 3 respondents (10%).

2. Bivariate Analysis

Table 5. 1. The relationship between attitudes and events deficiencies energy chronic (KEK) at Clinic Wanasari Telukjambe West Karawang Tahun 2023

| Sikap | Kejadian KEK | | | | Total | | P Value | Nilai OR |
|--------|--------------|----|-----------|----|-------|-----|---------|----------|
| | KEK | | Tidak KEK | | | | | |
| | F | % | F | % | N | % | | |
| Baik | 6 | 19 | 17 | 55 | 23 | 74 | .108 | .739 |
| Sedang | - | - | 8 | 26 | 8 | 26 | | |
| Total | 6 | 19 | 25 | 81 | 31 | 100 | | |

Of the 31 respondents mothers pregnant trimester I who experienced CED as many as 6 respondents (19%). For the attitude category, the majority of good attitudes are not KEK, namely 17 respondents (55%) and those who experience KEK are 6 respondents (19%) while for moderate attitudes the majority are not KEK, namely 8 respondents (26%); The statistical test results obtained a value of $P = 0.108$ ($p > 0.05$). This can be concluded that there is no influence between age and the incidence of CED. From the analysis results it is known that the value odds ratio = $0.739 < 1$ which means there is no influence.

Table 5.2. The relationship between knowledge and incidence shortage energy chronic (KEK) in Clinic Wanasari Telukjambe West Karawang Tahun 2023

| Pengetahuan | Kejadian KEK | | | | Total | | P Value | Nilai OR |
|-------------|--------------|----|-----------|----|-------|-----|---------|----------|
| | KEK | | Tidak KEK | | | | | |
| | F | % | F | % | N | % | | |
| Baik | 5 | 6 | 23 | 74 | 28 | 90 | .519 | .435 |
| Cukup | 1 | 3 | 2 | 7 | 3 | 10 | | |
| Total | 6 | 19 | 25 | 81 | 31 | 100 | | |

Of the 31 respondents mothers pregnant trimester I for the knowledge category, the majority had good knowledge of not having CED, namely 23 respondents (74%) and those experiencing CED were 5 respondents (16%) while for sufficient knowledge the majority did not have CED as many as 2 respondents (7%) and those who experienced CED were 1 respondent (3%). The statistical test results obtained a value of $P = 0.519$ ($p > 0.05$). This can be concluded that there is no influence between knowledge and KEK events. From the analysis results it is known that the value odds ratio = $0.435 < 1$ which means there is no influence.

Table 5.4. The relationship between the culture of food taboos and the incidence of chronic energy deficiency (CED) at the Clinic Wanasari Telukjambe West Karawang Year 2023

| Budaya Pantangan Makan | Kejadian KEK | | | | Total | | P Value | Nilai OR |
|------------------------|--------------|----|-----------|----|-------|-----|---------|----------|
| | KEK | | Tidak KEK | | | | | |
| | F | % | F | % | N | % | | |
| Tidak Percaya | 5 | 16 | 23 | 74 | 28 | 90 | .519 | .435 |
| Percaya | 1 | 3 | 2 | 7 | 3 | 10 | | |
| Total | 6 | 19 | 25 | 81 | 31 | 100 | | |

Of the 31 respondents mothers pregnant trimester I for the cultural category of food taboos, the majority did not believe in SEZ, namely 23 respondents (74%) and 5 respondents experienced CED (16%) while for the believe category the majority did not have CED as many as 2 respondents (7%) and those who experienced CED were 1 respondent (3%). The statistical test results obtained a value of $P = 0.519$ ($p > 0.05$). This can be concluded that there is no influence between knowledge and KEK events. From the results of the analysis, it is known that the value odds ratio = $0.435 < 1$, which means there is no influence.

Discussion

1. The Relationship Between Attitudes and Events Deficiencies Energy Chronic (KEK) at Clinic Wanasari Telukjambe West Karawang in 2023

Of the 31 respondents from first trimester pregnant women who experienced CED, 6 respondents (19%). For the attitude category, the majority of good attitudes are not KEK, namely 17 respondents (55%) and those who experience KEK are 6 respondents (19%) while for moderate attitudes the majority are not KEK, namely 8 respondents (26%). The statistical test results obtained a value of $P = 0.108$ ($p > 0.05$). It can be concluded that there is no influence between age and the incidence of CED. From the analysis results, it is known that the odds ratio = $0.739 < 1$, which means there is no influence.

This can be a good consideration in determining what attitude pregnant women should take in avoiding the occurrence of CED during their pregnancy. Some factors that can influence attitudes are experience, health information, culture, mass media, educational institutions, religious institutions, and emotional (Yunus, N., Nurlinda, A., & Alwi, M. K., 2021). Health promotion to meet nutritional and nutritional needs during pregnancy needs to be considered, such as consuming four healthy five perfect, consuming food rich in nutrients, increasing your intake of grains and nuts, eating in portions. appropriate, drink enough water, and do regular physical activity.

(Notoadmojo, 2019) According to attitude is a person's closed response to a particular stimulus or object, which already involves the relevant opinion and emotional factors. Attitude is a reaction or response that is still closed from a person to a stimulus or object. Manifestations of attitudes cannot be seen, but can only be interpreted in advance of closed behavior. According to Newcomb in Notoatmodjo, this attitude is a readiness or willingness to act and is not the implementation of a particular motive (Notoadmojo, 2019).

This research is in line with (Maimunah, 2021) it can be known that of 22 respondents mothers are pregnant, the large have attitudes which is attitudes and no happen KEK namely as much as 45.45% respondents, likewise also with events KEK which are dominated by attitudes attitudes at 22.73% respondents. In the results of the Spearman Rank test obtained value (p) = 0.09, where if probability (p) sig. > 0.05 , then H_0 is accepted which is means no there is a relationship that is meaningful between attitudes with events KEK.

(Sari, E. N., & Pitri, D, 2023)(Aisyah, 2020)(Masrikhiyah, R., Wahyani, A. D., Rahmawati, Y. D., & Balfas, R. F, 2022)(Masrikhiyah, R., Wahyani, A. D., Rahmawati, Y. D., & Balfas, R. F, 2022)These results are in line with research (Sari, E. N., & Pitri, D, 2023), which found there was no relationship between attitudes about nutrition and cakes ($p=0.0251$). However, these results contradict the results of research by (Aisyah, 2020), which found a relationship between the attitudes of pregnant women and the incidence of CED ($p=0.000$). Apart from that, the results of this study are also different from the results of research (Masrikhiyah, R., Wahyani, A. D., Rahmawati, Y. D., & Balfas, R. F, 2022), which found a relationship between mothers' attitudes towards fulfilling nutrition and the incidence of CED ($P=0.03$). The difference in the results of this study and previous research could be caused by the tendency of respondents to answer positively. In addition, differences in respondent characteristics allow for different results. Despite the shortcomings of this research, according to (Masrikhiyah, R.,

Wahyani, A. D., Rahmawati, Y. D., & Balfas, R. F, 2022), the mother's proper understanding regarding nutritional requirements for pregnant women in order to avoid the occurrence of KEK, will direct mothers to change attitudes towards healthy nutritional behavior. In this case, pregnant women's lack of attitude in meeting nutritional needs will cause mothers to be less concerned about choosing food, so they are at risk of experiencing CED. Apart from that, a factor that needs to be considered is the attitude of pregnant women who tend to pay attention to providing food for their children and husband, rather than themselves. This can affect the mother's nutritional deficiencies so that she will be very vulnerable to experiencing health problems, in this case related to the incidence of CED.

According to the author's assumption in the results of this study, most of the subjects of this research were multiparous, in terms of experience and understanding, pregnant women with multiparous status have better attitudes compared to pregnant women with primiparous status. Meanwhile, based on age in this study, the majority were aged 20-35 years, so the attitudes of respondents tended to be even better compared to the attitudes of respondents aged <20 years.

2.The Relationship Between Knowledge and Chronic Energy Deficiency (KEK) in Clinics Wanasari Telukjambe West Karawang in 2023

Of the 31 respondents mothers pregnant trimester I for the knowledge category, the majority had good knowledge of not having CED, namely 23 respondents (74%) and those experiencing CED were 5 respondents (16%) while for sufficient knowledge the majority did not have CED as many as 2 respondents (7%) and those who experienced CED were 1 respondent (3%). The statistical test results obtained a value of $P = 0.519$ ($p > 0.05$). This can be concluded that there is no influence between knowledge and KEK events. From the analysis results it is known that the odds ratio = $0.435 < 1$, which means there is no influence.

(Sari, E. N., & Pitri, D, 2023) It can be seen that the percentage of subjects in this study who have good knowledge is greater than those who have poor knowledge. Knowledge can be influenced by several factors, namely age, education and parity. Based on the results of observations, the subjects of this study who had less knowledge because they were less than 20 years old were pregnant women who were at risk and there were concerns that the nutritional supply, especially protein for the fetus, was lacking. There were those with basic education or low education who had poor knowledge of nutrition during pregnancy and more Mothers who do not work tend to have a heavier burden on the family's economy, this condition affects the nutrition of pregnant women. Likewise, knowledge about the causes of SEZ and how to treat SEZ (Sari, E. N., & Pitri, D, 2023).

(Sari, E. N., & Pitri, D, 2023)Based on the results of this research, it was found that the characteristics of the research subjects were mostly aged 20-35 years. Research conducted by (Sari, E. learning and adapting to new situations, for example remembering things previously learned at school or learned from outside school.

(Diningsih, R.F, Wiratmo, P.A & Lubis, E, 2021)Knowledge is the result of knowing, and this occurs after someone senses a particular object. Human sensing occurs through the senses of sight, hearing, smell, taste and touch. Most of human knowledge is obtained through the eyes and ears (Diningsih, R.F, Wiratmo, P.A & Lubis, E, 2021). Pregnant women's knowledge can be obtained through formal education and non-formal education. Examples of formal education can be obtained through school, namely elementary school, middle school, high school and college. Meanwhile, non-formal education can be obtained through information such as mass media, counseling or outreach carried out by health workers from both the health service and the community health center.

(Sari, E. N., & Pitri, D, 2023)Maternal education often has a positive association with the development of food consumption patterns in the family. The higher the mother's education level, the better her knowledge of nutrition and the more taken into account the type of food she chooses to consume, in line with research (Sari, E. N., & Pitri, D, 2023).

(Maimunah, 2021)(Sari, E. N., & Pitri, D, 2023)This research is in line with (Maimunah, 2021) this research reveals that there is no relationship between knowledge of nutrients and the nutritional status of pregnant women in the third trimester. Knowledge of pregnant women about nutrition and the nutritional status of pregnant women in the third trimester, which reveals that knowledge influences the nutritional status of mothers. third trimester of pregnancy. in various foodstuffs, uses. In this study there were also pregnant women with a sufficient level of knowledge about nutrition in pregnancy. Pregnant women's adequate knowledge about pregnancy nutrition influences the consumption of food needed during pregnancy. Lack of knowledge means that respondents do not know what foods are needed to fulfill nutrition during pregnancy. Lack of knowledge of pregnant women about nutrition during pregnancy can lead to a lack of nutritious food during pregnancy because basically knowledge about nutrition of pregnant women is very useful for the mother herself, therefore the need for energy and other nutrients greatly increases during pregnancy. Mothers with good knowledge correctly understand how necessary it is to increase energy and sufficient nutrients to make the fetus grow perfectly (Sari, E. N., & Pitri, D, 2023).

According to assumptions researchers results from research research the majority education respondents namely high school, education will influence a person's a person, increasingly higher education the will increasingly easier from obtain the information either from other people or from media mass, otherwise with education that he low will hinder a person from developing the information that he obtains. Likewise also with that age and parity, the majority that age respondents 20-35 years where in that age the mother pregnant are increasingly mature and increasingly ready in undergoing pregnancy besides that also in this research the majority parity > 1 which means respondents in this research are experienced.

3.The relationship between taboos food and the incidence of chronic energy deficiency (KEK) at the Clinic Wanasari Telukjambe West Karawang in 2023

Of the 31 respondents from pregnant women in the first trimester, for the food taboo culture category, the majority did not believe there was no CED, namely 23 respondents (74%) and those who experienced CED were 5 respondents (16%) while for the category they believed the majority did not have CED, there were 2 respondents (7%) and 1 respondent (3%) experienced cake. The statistical test results obtained a value of $P = 0.519$ ($p > 0.05$). It can be concluded that there is no influence between knowledge and the incidence of KEK. From the results of the analysis, it is known that the odds ratio = $0.435 < 1$, which means there is no influence.

This research is in accordance with (Firdausyi, L & Mulyadi, E, 2022) that suggests that abstained from food not is one one factors that affect the condition Chronic Energy deficiency in pregnant mothers, due to type food that are abstained from do not contain high good substances that can affect status good in pregnant mothers. So even though abstain food, pregnant mothers still have good nutritional status.

Food taboos are foodstuffs or dishes that cannot be eaten by individuals in society for cultural reasons. Abstinence from food is not one of the factors that influence the state of Chronic Energy Deficiency in pregnant women, because the types of food that are abstained from do not contain high levels of nutrients which can affect the nutritional status of pregnant women. So even if you abstain from food, pregnant women still have good nutritional status. The impact of complications of malnutrition on pregnant women includes chronic lack of energy, anemia, bleeding, the mother not gaining weight normally, exposure to infectious diseases. premature birth, bleeding after delivery, abortion, neonatal death, congenital defects, anemia in babies, intra-partum asphyxia (death in the womb), birth with low birth weight (LBW).

Some the pattern of abstinence from food only adopted by a group of a certain or by sections which is greater than population. Other patterns only applies to groups in its a population times and at certain times. If the pattern of taboo applies to the entire population and throughout their lives, lack

substances nutrition tends not to develop as if taboo it only applies to a group of a certain society during one stage in its cycle.

Efforts that need to be made by health officers for overcome incidents abstain foods is by provide understanding as well as counseling by the best, that abstain foods that contains nutrition is can cause nutrition pregnant mothers to be disturbed. Improvement nutrition for pregnant mothers by KEK is by increasing consumption types foods that contains carbohydrates such as rice, noodles and potatoes. Which contains protein protein animal namely: meat, fish, chicken, eggs. Source protein vegetable namely: tempeh, tofu, nuts.

According to assumptions researchers respondents that is studied the majority level education high school so that patterns think are much more advanced, plus more in the era now for access information health are very easier, respondents are smart using technology, so that respondents increasingly easier to find information especially information health, food that is good for eat when mothers so that factors culture taboos food are rarely done by respondents, in added more the role of midwives in reducing the number incidence of KEK wrong only namely program class pregnant mothers, in class pregnant mothers there explained about nutritional nutrition for pregnant mothers, so that respondents become understand about needs nutrition during pregnancy.

Conclusion

1. It can be known k category occurrence KEK majority are not KEK as many as 25 respondents (81%), while those with KEK are 6 respondents (19%).
2. It can be seen that the majority of knowledge category is good knowledge, namely 28 respondents (90%) while the category sufficient knowledge is 3 respondents (10%).
3. It can be seen that the majority attitude category is good, namely 23 respondents (74%) and the moderate attitude category is 8 respondents (26%).
4. It can be seen that for the cultural category of food taboos, the majority do not believe, namely 28 respondents (90%) and for the category of believe, there are 3 respondents (10%).
5. It is known that the statistical test results obtained a value of $P = 0.108$ ($p > 0.05$). This can be concluded that there is no influence between age and the incidence of CED. From the results of the analysis, it is known that the value odds ratio = $0.739 < 1$, which means there is no influence.
6. It is known that the statistical test results obtained a value of $P = 0.519$ ($p > 0.05$). This can be concluded that there is no influence between knowledge and KEK events. From the analysis results it is known that the value odds ratio = $0.435 < 1$ which means there is no influence
7. D know statistical test results obtained a value of $P = 0.519$ ($p > 0.05$). This can be concluded that there is no influence between knowledge and KEK events. From the results of the analysis it is known that the value odds ratio = $0.435 < 1$, which means there is no influence.

Suggestions

Suggestions in this research are for educational institutions, for research sites, for respondents and for future researchers

References

- [1] Aisyah, S. (2020). Relationship between nutritional status and the incidence of anemia in pregnancy
- [2] Third Trimester at Jabung Police. *Midwifery Journal*. doi:<https://doi.org/10.30736/midpro.v8i2.11>
- [3] Arikunto, S. (2018). *Research Procedures: A Practical Approach*. Jakarta: Rineka Cipta.
- [4] Wanasari Clinic Data. (2022). Data on Pregnant Women in the 1st Trimester and Early 2nd Trimester at the Wanasari Clinic, Telukjambe Barat.
- [5] West Java Health Service. (2022). Number of Pregnant Women with Chronic Energy Deficiency (KEK) by Regency/City in West Java. Retrieved 10 29, 2023, from <https://opendata.jabarprov.go.id/id/dataset/besar-ibu-hamil-kekurangan-energi-kronis-kek-based-kabupatenkota-di-jawa-barat>
- [6] Diningsih, R.F, Wiratmo, P.A & Lubis, E. (2021). THE RELATIONSHIP OF THE LEVEL OF KNOWLEDGE ABOUT NUTRITION AND THE INCIDENT OF CHRONIC ENERGY DEFICIENCY (CED) IN PREGNANT WOMEN. Retrieved 12 31, 2023, from <https://journal.binawan.ac.id/index.php/bsj/article/view/327/207>
- [7] Karawang District Health Office. (2022). Karawang District Health Profile 2022. Retrieved 10 29, 2023, from <https://diskes.jabarprov.go.id/assets/unduhan/202d8cdd39531ab54253b8bd4ea19e5e.pdf>
- [8] Fatimah, F., Triyani, S., & Aisyah, A.. (2022). Determinants of Decision Making in Birth Planning in Pregnant Women's Classes. *Journal of Science and...*, 37–43. Retrieved 10 29, 2023, from <http://ejurnal.poltekkesjakarta3.ac.id/index.php/JITEK/article/view/78>
- [9] Firdausyi, L & Mulyadi, E. (2022). THE RELATIONSHIP OF CULTURE AND KNOWLEDGE WITH THE INCIDENT OF CHRONIC ENERGY DEFICIENCY IN 1ST TRIMESTER PREGNANT WOMEN IN COASTAL AREAS. *Angel's Way Journal*. Retrieved 12 31, 2023, from <https://journal.uim.ac.id/jurnal-sakti-bidadari>
- [10] Firdausyi. L & Mulyadi. E. (2023). The relationship between culture and knowledge of the incidence of chronic energy deficiency in first trimester pregnant women in coastal areas in 2023. *SAKTI BIDADARI JOURNAL*, 7. Retrieved from <https://journal.uim.ac.id/index.php/bidadari/article/download/1469/943>
- [11] Hamonangan, Y. (2019). THE RELATIONSHIP OF HUSBAND'S SUPPORT WITH THE USE OF POST-PARENTH IUD CONTRACEPTION IN THE BANTARGEBAH HEALTH CENTER, BEKASI CITY. Retrieved from <https://jurnal.medikasuherman.ac.id/imds/index.php/JIKMDS/article/view/24>
- [12] Irfan, A.J & Satriawan, S.M.B. (2018). *Processing Business Research Data Using SPSS (Second)*. Medan: Aqli Scientific Writing and Research Institute.
- [13] Ismayani, A. (2020). *Research methodology*. Aceh: Syiah Kuala University Press.
- [14] Indonesia Dictionary. (2018). *Language Center of the Ministry of National Education*. Jakarta: Balai Pustaka.
- [15] Republic of Indonesia Ministry of Health. (2020). WORK REPORT OF THE MINISTRY OF HEALTH OF THE REPUBLIC OF INDONESIA. Retrieved 10 29, 2023, from https://ppid.kemkes.go.id/toapsoot/2022/06/lakip_2022.pdf
- [16] Republic of Indonesia Ministry of Health. (2021). WORK REPORT OF THE MINISTRY OF HEALTH OF THE REPUBLIC OF INDONESIA. Retrieved 10 29, 2023, from https://ppid.kemkes.go.id/toapsoot/2022/06/lakip_2022.pdf
- [17] Republic of Indonesia Ministry of Health. (2021). WORK REPORT OF THE MINISTRY OF HEALTH OF THE REPUBLIC OF INDONESIA. Retrieved 10 29, 2023, from https://ppid.kemkes.go.id/toapsoot/2022/06/lakip_2022.pdf

- [18] Republic of Indonesia Ministry of Health. (2022). HEALTH DEVELOPMENT POLICY BOARD. Retrieved 10 31, 2023, from <https://www.badanpolitik.kemkes.go.id/report-hasil-survei/>
- [19] Republic of Indonesia Ministry of Health. (2022). GOVERNMENT AGENCIES PERFORMANCE ACCOUNTABILITY REPORT (LAKIP) YEAR 2022. Retrieved 10 29, 2023, from https://kesmas.kemkes.go.id/assets/uploads/contents/others/Lakip_Ditjen_Kesmas.pdf
- [20] Kurniawan. W & Agustini. A. (2021). *Health and Nursing Research Methodology*. Cirebon: Lovrinz Publishing Books.
- [21] Lubis, M. S. (2019). *Research methodology*. Deepublish. Yogyakarta: Deepublish.
- [22] Maimunah. (2021). Factors associated with the incidence of chronic energy deficiency in pregnant women in the Sihepeng health center working area in 2021. Retrieved 12 31, 2023, from [https://repository.unar.ac.id/jspui/bitstream/123456789/2987/1/Thesis% 20Maimunah.pdf](https://repository.unar.ac.id/jspui/bitstream/123456789/2987/1/Thesis%20Maimunah.pdf)
- [23] Masrikhiyah, R., Wahyani, A. D., Rahmawati, Y. D., & Balfas, R. F. (2022). Increased Knowledge regarding Chronic Energy Deficiency (KEK) and Nutrition in Pregnant Women during the Covid-19 Pandemic. Retrieved 10 29, 2023, from <https://journal.unilak.ac.id/index.php/dinamisia/article/view/10421>
- [24] Masturoh, I. (2018). *Health research methodology*. Jakarta: Health Human Resources Education Center.
- [25] Nawassyarif, et al. (2020). Livestock Data Processing Information System, Web-Based Animal Production and Health Technical Implementation Unit. doi:10.51401/jinteks.v2i1.556
- [26] Notoadmojo, S. (2019). *Health Behavior Science*. Jakarta: Rineka Cipta.
- [27] Notoatmodjo, 2003 in Aminudin Mukhammad. (2016). *The Relationship Between Knowledge and Attitudes and Healthy Behavior at MI Sulaimaniyah Mojoagung Jombang*.
- [28] Notoatmodjo, P. D. (2018). *Health Research Methodology*. Jakarta: Rineka Cipta.
- [29] Novita, R. (2018). Relationship between nutritional status and menstrual disorders in young women at Al-Azhar High School Surabaya. doi:<https://doi.org/10.20473/amnt.v2i2.2018.172-181>
- [30] Novitasari Y.D, et al. (2023). FACTORS ASSOCIATED WITH CHRONIC ENERGY DEFICIENCY (KEK) OF PREGNANT WOMEN IN THE WORKING AREA OF THE ROWOSARI PUSKESMAS SEMARANG. doi: <https://doi.org/10.14710/dmj.v8i1.23399>
- [31] Nugraha, et al. (2023). THE RELATIONSHIP OF PREGNANCY DISTANCE AND NUMBER OF PARITY WITH THE INCIDENT OF CHRONIC ENERGY DEFICIENCY (CED) IN PREGNANT WOMEN IN KUPANG CITY. doi:<https://doi.org/10.35508/cmj.v7i2.1800>
- [32] Nugroho, D.K.S & Noviasari, N.A. (2023). ANALYSIS OF KNOWLEDGE, ATTITUDES AND BEHAVIORAL FACTORS TO PREVENT DEFICIENCY CHRONIC ENERGY AT THE INTEGRATED YOUTH SERVICE POS RW 01 KELURAHAN TLOGOSARI KULON. Retrieved 10 31, 2023, from <https://jurnal.academiacenter.org>
- [33] Nursalam. (2016). *Nursing Science Research Methodology*. Jakarta: Salemba Medika.
- [34] Panjaitan et al. (2022). THE RELATIONSHIP OF UPPER ARM CIRCUMFERENCE AND AGE OF PREGNANT WOMEN ON THE INCIDENT OF LOW BIRTH WEIGHT INFANTS. Retrieved 10 06, 2023, from <https://journal.binawan.ac.id/JAKAGI/article/view/189>
- [35] Priyanto, D. (2019). *Independently learn data analysis with SPSS*. Yogyakarta: Mediakom.
- [36] Safitriana, E et al. (2022). The Relationship between Mother's Knowledge, Attitude and Husband's Support with the Choice of Implant Contraception. Batanghari University Jambi Scientific Journal. Retrieved 10 26, 2023, from <http://ji.unbari.ac.id/index.php/ilmiah/article/view/1818>

- [37] Safitriana, E., Hasbiah, H., & Amalia, R. (2022). The Relationship between Mother's Knowledge, Attitude and Husband's Support with the Choice of Implant Contraception. *Batanghari University Jambi Scientific Journal*. Retrieved 10 29, 2023, from <http://ji.unbari.ac.id/index.php/ilmiah/article/view/1818>
- [38] Sari, E. N., & Pitri, D. (2023). Relationship between Pregnant Women's Knowledge about Nutrition Pregnancy with Chronic Energy Deficiency (CED) in Pregnancy in the Working Area of Sitiung Community Health Center 1 Year 2022. Retrieved 12 31, 2023, from <https://jptam.org/index.php/jptam/articles/view/5283>
- [39] Sari, M., Siswati, T., Suparto, A. A., Ambarsari, I. F., Azizah, N., Safitri, W., & Hasanah, N. (2020). *Research methodology*. Padang: Global Technology Executive.
- [40] Satyagraha, et al. (2020). The Relationship between Dietary Patterns and the Incidence of Anemia in SMP Negeri 18 Banjarmasin 2019 / 2020. *Homeostatic Journal*. Retrieved 10 31, 2023, from <https://ppjp.ulm.ac.id/journals/index.php/hms/article/view/2265>
- [41] Sinambela, L. P. (2021). *Quantitative Research Methodology: Theoretical and Practical*. Depok: PT Raja Grafindo Persada.
- [42] Siregar, R. (2022). Factors Associated with Pregnant Women's Knowledge of Danger Signs in Pregnancy at TPMB Neneng Chintia Devi in August-December 2022.. *Suherman Medika Scientific Journal*. Retrieved 10 29, 2023, from <https://repository.medikasuherman.ac.id/xmlui/handle/123456789/3005>
- [43] Sudarmiatin, S. (2016). *Existing Norms in Society*. Jakarta: Balai Pustaka.
- [44] Sugiyono. (2018). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: CV Alfabeta.
- [45] Sugiyono. (2020). *Combination Research Methodology (Mixed methods)*. Bandung: Alfabeta.
- [46] Supariasa. (2012). *Nutrition Education and Consultation*. Jakarta: EGC.
- [47] Syagata, A.S, et al. (2022). *TEXTBOOK FOR NUTRITIONAL STATUS ASSESSMENT AND ITS APPLICATION*. Yogyakarta: CV Budiutama.
- [48] WHO. (2019). Data and Statistics. Retrieved 10 29, 2023, from <https://www.who.int/health-topics/#C>
- [49] Widaningsih, d. (2019). FACTORS RELATED TO MOTHER'S KNOWLEDGE ABOUT PAP SMEARS IN THE TAKLIM MAJELIS, HARJA MEKAR VILLAGE, BEKASI DISTRICT, 2019.
- [50] Wijayanti, H. (2020). Factors Associated with Chronic Energy Deficiency (KEK) in Pregnant Women at the Jetis Ii Bantul Health Center, Yogyakarta. Retrieved 10 31, 2023, from <http://digilib.unisayogya.ac.id/1996/1/NASKAH%20PUBLICATION.pdf>
- [51] Yunus, N., Nurlinda, A., & Alwi, M. K. (2021). The Relationship between Knowledge and Attitudes towards the Incident of Preeclampsia in Pregnant Women in the Tangeban Community Health Center Area, Masama District, Banggai Regency. Retrieved 12 31, 2023, from <https://pasca-umi.ac.id/index.php/jmch/article/view/501>
- [52] Zulmiyetri, Nurhastuti, & Safaruddin. (2020). *Writing scientific papers*. Bandung: Prenada Media.