

TRAINING EMPOWERMENT OF CADRES BY USING CONTROL CARDS TO PREVENT ANEMIA AMONG PREGNANT WOMEN IN DESA RANAH SINGKUANG

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Abstract: Nutrition during pregnancy plays an important role in fetal growth, the nutritional needs of pregnant women increase both in quantity and quality of nutrition. The proportion of anemia in pregnant women increased from 37.1% in 2013 to 48.9% in 2018. Anemia is linked to other health problems such as low birth weight, stunting, and child malnutrition. One of many ways to overcome the problem of anemia in pregnant women is by giving iron supplement. Pregnant women in Riau Province who received iron supplement decreased from 79% in 2018 to 65% in 2019. Therefore, it is necessary to empower cadres in preventing anemia, namely by using control cards of iron supplement consumption and education in the form of providing nutritional videos for pregnant women. The aim of this Community Service is to provide cadre training so that they will be able to educate pregnant women to increase knowledge, adherence to drinking iron supplement, and skills in processing foods high in iron. The training method used for cadres is lectures with educational media in the form of control cards, presentation handouts, showing videos on nutrition for pregnant women, and questions and answers. The training for cadres successfully improved cadre knowledge and skills, which now could educate and giving assistance to pregnant woman consuming iron supplements and prepare high Fe foods. After receiving education from cadres, pregnant women's consumption of iron supplement increased significantly from previously not routinely every day due to forgetting or feeling nauseous after consuming iron supplement to becoming routine every day

Keywords: *Cadres empowerment; Control Cards; Anemia; Pregnant Woman*

Nutrition during pregnancy plays an important role in fetal growth because the fetus responds to the mother's diet and the mother's food stores from the beginning of pregnancy and this will contribute to the child's health status (after birth) until adulthood (Barker, 2008). The period of the first 1000 days of life is called the window of opportunities or the golden period, during the 9 months of pregnancy until the child is 2 years old, there is a very fast growth and development process. The state of the mother's health before and after pregnancy greatly determines the health of the pregnant woman, the mother needs special nutritional needs for a healthy pregnancy (Mitayani & Wiwi, 2010). Based on basic health research data (2018), the proportion of risk of chronic energy deficiency in women of childbearing age in 2018 was 17.3% for pregnant women

of childbearing age and 14.5% for non-pregnant women of childbearing age. The proportion of anemia in pregnant women increased from 37.1% in 2013 to 48.9% in 2018. According to the National Survey of Individual Food Consumption in 2014, the majority of pregnant women according to socio-economic conditions (quintiles 1-5) had problems with food intake, both energy and protein. Nutritional problems for prospective pregnant women and during pregnancy have an impact on babies being born who are malnourished with a low birth weight < 2500 grams and a body length < 48 cm. Data basic health research in 2018 shows that the proportion of LBW is 6.2% and birth length < 48 cm is 22.7%.

One of the nutritional problems that pregnant women often encounter is anemia. For pregnant women, anemia plays a role in

increasing the prevalence of maternal mortality and morbidity, and for babies it can increase the risk of morbidity and death, as well as low birth weight and premature babies (Department of Nutrition and Health, 2011). WHO (2012) reports that the prevalence of anemia in pregnant women in the world is around 41.8% on average. Based on basic health research data (2018), the prevalence of anemia in pregnant women continues to increase from 37.1% in 2013 to 46.2% in 2018. In Riau Province, the prevalence of anemia in pregnant women in 2020 is 32.48%. The high rate of non-adherence among pregnant women in consuming iron supplements is a problem currently being faced by the Indonesian nation. Pregnant women's lack of knowledge regarding anemia increases the risk of pregnant women not adhering to take iron supplements. Therefore, research was conducted on the effect of giving anemia booklets on increasing knowledge and adherence to drinking iron supplements and hemoglobin (Hb) levels in pregnant women (Adawiyani, 2013). Pregnant women are said to have symptoms of severe anemia if the Hb level in the blood is less than 10 gr/dl and anemia gravis if the Hb level is less than 6 mg/dl. The amount of Hb levels in each blood cell will determine the blood's ability to transport oxygen from the lungs throughout the body. Most anemia in Indonesia is caused by iron deficiency. The causes of iron deficiency anemia include the iron content of the food consumed not meeting needs, increasing the body's need for iron, increasing excretion of iron from the body (Winarsih, 2018).

Description of the location of community service, namely Ranah Singkuang Assisted Village. According to the Village Midwife, a pregnant woman had received iron supplements but did not return to get iron supplements because she admitted that she felt nauseous when drinking iron supplements. Therefore, education is needed, one of which is the right time to take iron supplements so that it can minimize nausea. Apart from that, it is necessary to increase knowledge of the benefits of iron supplements so that mothers

are expected to be more compliant in consuming iron supplements. Training and assistance to cadres so they can use control cards and nutrition education for pregnant women to prevent anemia. This method is expected to increase knowledge, adherence to consume iron supplements, and skills in processing foods high in Fe. Apart from that, community service is carried out with the concept of Interprofessional Collaboration (IPC), namely the practice of collaboration between two or more health professions who study each other's roles and aim to improve collaboration capabilities and the quality of health services. The health professions in charges are nutrition professions and midwives.

METHOD

The training method used for cadres is lectures with educational media in the form of control cards, presentation handouts, showing videos on nutrition for pregnant women, questions and answers, and competitions in role play and food processing for pregnant women. Adherence of consuming iron supplements is carried out by providing iron supplements which is a Puskesmas program to pregnant women and providing control cards in the form of a calendar (as a reminder) in order to increase adherence of consuming iron supplements, namely a minimum of 90 iron supplements. The role play competition was held in order to measure the level of cadres' understanding of the nutrition education that had previously been implemented. Apart from that, it can also measure the ability and/or skills of cadres in providing nutritional education to pregnant women. A food processing competition for pregnant women were held in order to improve cadres' skills in processing food for pregnant women that is high in Fe. The activity instruments are leaflets and control cards as follows:



Figure 1. Educational Media Leaflet and TTD Control Card

RESULTS

Providing nutritional videos for pregnant women is based on the results of previous research, namely that there is a statistically significant difference between knowledge and adherence to consume iron supplements for pregnant women before and after treatment or intervention in the form of providing Educational Videos on iron supplements and Nutrition for Pregnant Women with a significance value of 0.000 (<0.05). Apart from that, educational media in the form of videos will make it easier for cadres to provide assistance to pregnant women. Cadre training is carried out using the lecture and question and answer method by providing presentation handouts as follows:

Table 1. Cadre Skills

No	Description of activities	Done
1	Providing education for pregnant women with the material in the presentation handout	v
2	Providing education using educational video media	v
3	Providing education using leaflet educational media	v
4	Provide pregnant women with TTD consumption control cards	v
5	Monitoring the filling in of pregnant women's TTD consumption control cards	v
6	Assisting pregnant women in consuming TTD	v
7	Providing education and assistance to fill my plate with nutrition for pregnant women	v

The role play competition was held to motivate posyandu cadres to provide assistance with iron supplements consumption to pregnant women. The concept of role play is that cadres act as instructors or educators, by repeating the education they have received from cadre training, then changing roles as providers of education to pregnant women. Cadres play an active role not only providing assistance during the implementation of posyandu but also making visits to pregnant women's homes as follows:



Figure 2. Cadre's Assistance to Pregnant Woman

After receiving education from cadres, pregnant women's consumption of iron supplements increased significantly from previously not routinely every day due to forgetting or feeling nauseous after consuming iron supplements to becoming routine every day. In the educational material, it has been stated that tips for consuming TTD are as follows:

- a. iron supplements should be taken at night before bed to reduce nausea.
- b. iron supplements should consumed with food or drinks that contain Vitamin C such as fresh fruit, vegetables and fruit juice so that iron absorption in the body is better.
- c. Don't drink iron supplements with tea, coffee, milk, stomach ulcer medicine and calc tablets because it will inhibit iron absorption.

The food processing competition (fill my plate for pregnant women) was held to motivate pregnant women to take part in a series of mentoring by posyandu cadres. Active pregnant women enthusiastically cook pregnant women's menus according to the principles of what's on my plate for pregnant women who have been educated by cadres. The following is an example of the menu for the contents of my plate for pregnant women :



Figure 3. Food Processing Competition for Pregnant Women

Pregnant Women

DISCUSSION

Cadres of pregnant women are part of the community itself so that they can help improve the health status of pregnant women from a promotive and preventive side. Based on the results, after receiving the training which are lectures with educational media in the form of control cards, presentation handouts, showing videos on nutrition for pregnant women, questions and answers, and competitions in role play and food processing for pregnant women, cadres has improved their knowledge and skill, also played an active role not only providing assistance during the implementation of posyandu but also making visits to pregnant women's homes. Cadres have been able to provide education to pregnant women using educational media such as those obtained during cadre training. Based on the results of previous research, there is a significant difference (Sig 0.000) between knowledge and compliance with TTD consumption by pregnant women before and after receiving education in the form of Educational Videos on Blood Supplement Tablets (TTD) and Nutrition for Pregnant Women (Erowati, 2023).

In previous research related to empowering cadres in the control program for pregnant women, cadres played a role in recognizing and early detecting risk factors through measuring upper arm circumference, measuring hemoglobin (Hb) levels and detecting four too many in pregnant women. Empowering cadres of the pregnant mother control program through socialization using interactive lecture and discussion methods, as well as providing leaflets can provide changes in the knowledge and attitudes of cadres in preventing and treating anemia in pregnant women. Cadres who are not working will play an active role in the activities of the pregnant mother control program (Sari, 2021). Anemia in pregnant women can increase the risk of maternal and infant mortality. Pregnant women really need tablets to increase blood (iron) to avoid anemia. Prevention of anemia

in pregnancy starts from adolescence and when it is declared pregnant by consuming iron and folic acid supplements (Ningsih, 2022).

Increasing the knowledge of health cadres about the prevention of anemia will cause positive rights for pregnant women because the knowledge of health cadres will be transformed to pregnant women in their regions. In addition to being transformed, health cadres will also support and assist pregnant women in the implementation of anemia prevention (Rahmawati, 2023). A series of community service activities have been carried out in providing training and mentoring to cadres, it is hoped that all pregnant women will understand about preventing anemia in pregnancy and how to prevent it.

CONCLUSION

After posyandu cadres received training regarding nutrition for pregnant women and the use of iron supplements consumption control cards, cadres were able to provide assistance to pregnant women. After receiving education from cadres, pregnant women's consumption of iron supplements increased significantly from previously not routinely every day due to forgetting or feeling nauseous after consuming iron supplements to becoming routine every day.

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