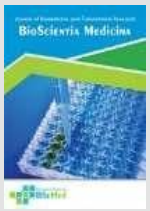
eISSN (Online): 2598-0580



Bioscientia Medicina: Journal of Biomedicine & Translational Research

Journal Homepage: www.bioscmed.com

The Effectiveness of Health Promotion Strategies for Pregnant Women on Fe Tablet Consumption in the Work Area of Bebesen Health Center, Central Aceh Regency

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ARTICLE INFO

Keywords:
Health promotion strategy
Fe tablets
Pregnant women
Behavior

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All authors have reviewed and approved the final version of the manuscript.

https://doi.org/10.37275/bsm.v6i14.668

A B S T R A C T

Background: The distribution coverage of Fe tablets in Bebesen Health Center is still very low, even the lowest compared to other health centers in Central Aceh District, namely 12.40% for Fe1 and 10.56% for Fe3. Failure to achieve the distribution target of Fe tablets in the district can increase the prevalence of anemia. However, there is no clear reporting of anemia in pregnant women, let alone data on adherence to consuming Fe tablets. One of the reasons is the weak monitoring, recording, and reporting system of health workers in consuming Fe tablets and the lack of routine Hb level checks. This study aims to evaluate the effectiveness of health promotion strategies for pregnant women on the consumption of Fe tablets in the Bebesen Health Center Work Area. **Methods:** Experimental research with participatory action research design (PAR). A sample of 44 pregnant women who were in the Bebesen Health Center area with a gestational age of more than 20 weeks or less than 20 weeks but was the first visit and had made a health visit to a health service place in the working area of the Health Center. Data analysis was carried out with SPSS. Version 25, in the form of univariate and bivariate analysis. **Results:** The promotional strategy applied was effective in changing the mother's behavior in consuming Fe tablets, Z_{count} = 5.781 (Z_{count} > 1.96), and p-value = 0.000 (p<0.05). **Conclusion:** Provision of effective health promotion strategies on consumption behavior of Fe tablets.

1. Introduction

The problem of nutrition and food is a fundamental problem because it can directly determine the quality of human resources and the degree of public health. One of the nutritional problems that have not been resolved until now is anemia. Anemia in pregnancy is not without risks. Basically, pregnant women can experience miscarriage, premature birth, low birth weight, and bleeding before and during childbirth can even result in the death of the mother and fetus.[1,2] Oral administration of iron is one approach for the prevention and control of iron deficiency anemia.[3] In Indonesia, giving iron tablets to all pregnant women is around 60 mg per day for 90 days. Data on the distribution coverage of Fe1 tablets in Indonesia (i.e., those who received 30 tablets or 1 pack at the first visit or starting week 20) in 2002 was 64.62%, and Fe3 (i.e., those who received 90 tablets or 3 packs until the third trimester) was 54.92%. Fe1 coverage in 2003 was 69.14% and 59.62% for Fe3.[4] In Aceh Province in 2021, the distribution of coverage for Fe1 tablets is 69.38% and 57.19% for Fe3 with a Maternal Mortality Rate (MMR) of 172/100,000 live births. The lowest coverage was in Central Aceh Regency, namely 12.40% for Fe1 and 10.56% for Fe3.[9] In Central Aceh Regency,

the lowest coverage was at Bebesen Health Center at 0.56% for Fe1 and 0% for Fe3.[5]

Failure to achieve the distribution target of Fe tablets in the district can increase the prevalence of anemia. However, there is no clear reporting of anemia in pregnant women, let alone data on adherence to consuming Fe tablets. One of the reasons is the weak monitoring, recording, and reporting system of health workers in consuming Fe tablets and the lack of routine Hb level checks. There are several factors that influence the adherence of pregnant women to taking Fe tablets, namely knowledge of pregnant women, education, and antenatal care visits. Health workers play an important role in every antenatal care visit, and health workers must recognize high-risk pregnancies, especially malnutrition, and provide health education to pregnant women.[6]

One of the health workers involved in the management of anemia in pregnant women is a midwife. Midwives can act as implementers of midwifery services, managers of health service institutions, and educators in midwifery care by providing health education and counseling as well as research.[7] Midwifery service providers, midwives can act as providers and counselors, and health workers can act as communicators, motivators, facilitators, and consultants.[8,9] Health workers must be aware of their role as customers, namely staff who are given the special task of providing medical and health care services to people who use the services.[10] In the management of anemia in pregnancy, midwives, must give Fe tablets to all pregnant women and at every antenatal visit, provide counseling about nutrition, foods that contain iron and are rich in vitamin C and ask whether pregnant women take Fe tablets according to the provisions.[7]

Seeing this condition, it is necessary to make efforts to improve behavior through a health promotion approach. Health promotion is a process of empowering or empowering communities to maintain, improve and protect their health through increasing awareness, willingness, and ability, as well as developing a healthy environment. Health promotion in the context of community empowerment should pay attention to the side of local wisdom where the community has traditions and customs as the potential that can be developed as social capital because it can foster mutual trust in cooperation and foster a sense of responsibility.[11] Health promotion strategies can be carried out through advocacy, social support, and community empowerment. This study aims to evaluate the effectiveness of health promotion strategies for pregnant women on the consumption of Fe tablets in the Work Area of Bebesen Health Center, Central Aceh Regency, Indonesia.

2. Methods

The study design is a quasi-experimental research with participatory action research design (PAR). This research was conducted in the Bebesen Health Center Work Area, Central Aceh Regency. A sample of 44 pregnant women who were in the Bebesen Health Center area with a gestational age of more than 20 weeks or less than 20 weeks but was the first visit and had made a health visit to a health service place in the working area of the Health Center. The sampling method in this study uses the random quota method sampling, where every village in the Bebesen Health Center working area will be represented by a sample according to the proportion of the total population in the Bebesen Health Center Work Area. This study has obtained permission from the health research ethics committee of the Health Polytechnic of the Ministry of Health Aceh, Central Aceh, Indonesia.

The study begins with an initial evaluation (pre-test) of the behavior of the target mother in consuming Fe tablets. Subsequently, a health promotion strategy was gradually implemented with the direct involvement of researchers and all selected participants. After all the health promotion strategies have been carried out, then a final evaluation (post-test) is carried out on the behavior of the target mothers in consuming Fe tablets. The health promotion strategies carried out include 1) Advocacy. Advocacy is done by making a commitment with the head of the Health Center and also the person in

charge of health promotion to implement policies for the community, especially pregnant women, in consuming Fe tablets. According to the head of the Health Center and also the program division, advocacy efforts have also been carried out in the form of budget requests for health promotion to the public, including the procurement of posters and also travel costs for officers who provide health promotion. In this advocacy activity, it was agreed that the Health Center would immediately step down to carry out health promotion in areas with low coverage of consumption of Fe tablets accompanied by researchers. 2) Social support, social support is an effort to create an opinion or a social environment that encourages individual members of the community to want to carry out the introduced behavior. In this second strategy, the researcher invites health workers and pregnant women to form associations such as caring groups for consuming Fe tablets, and in each meeting, health education is carried out. The results obtained are the formation of an association of mothers who care about consuming Fe tablets, which is chaired by health cadres. 3) Community empowerment is needed in relation to the community so that they gain the ability to support and improve maternal health. Community empowerment carried out in this study was to activate health cadres not only on integrated service post days but also on other days, even door-to-door, to observe the mother's condition and provide counseling about the consumption of Fe tablets.

Data were collected using behavioral measurement tools in the form of a questionnaire and direct observation of the mother's actions. Questionnaires are arranged according to the behavioral aspects to be evaluated, namely knowledge, attitudes, and actions. While the observation was done by making an observation sheet, what was observed was what had been done in the effort of the mother's behavior in consuming Fe tablets. Data analysis was performed with the help of SPSS version 25 software. Univariate analysis was performed to present the frequency distribution of the test variables. Then, it was continued with bivariate analysis to test the mean difference between the test groups. A bivariate test was carried out with Wilcoxon with a p-value = 0.05.

3. Results

Table 1 shows a comparison of the behavioral categories of respondents before and after the Health promotion intervention. Before the Health promotion was carried out, it was seen that the majority, namely 65.9% of respondents, had a behavior that was categorized as bad in consuming Fe tablets. This, of course, will cause anemic conditions in respondents. After the health promotion intervention was carried out, it was seen that there was an improvement in the behavior of the respondents, where the majority, as many as 56.8%, showed good behavior related to the consumption of Fe tablets.

Table 1. Comparison of behavioral categories before and after health promotion interventions.

Before health promotion		After health promotion	
Behavioral categories	Total (%)	Behavioral categories	Total (%)
Good	15 (34.1)	Good	25 (56.8)
Less	29 (65.9)	Less	19 (43.2)
Total	44 (100)	Total	44 (100)

Table 2 shows a comparison of behavioral scores before and after Health promotion. This bivariate test is intended to further confirm the existence of differences related to changes in respondent behavior before and after the Health promotion intervention. Based on the average behavioral score, it was found

that there was an improvement in behavioral scores between before promotion and after health promotion. The improvement in the scores was statistically different, which showed that Health promotion significantly improved the respondents' behavioral scores regarding the consumption of Fe tablets.

Table 2. Comparison of behavioral scores before and after health promotion.

Before health promotion (Mean±SD)	After health promotion (Mean±SD)	p-value
76.9±3.6	92.9±4.2	0.00*

*Wilcoxon, $p<0.05$.

4. Discussion

Advocacy is an activity aimed at decision-makers or policymakers both in the field of policy and other sectors outside of health that have an influence on the public so that decision-makers issue policies that benefit public health. This advocacy is more touching on policymakers to know and pay more attention to health. Advocacy can be done by influencing policymakers to be able to make regulations that can favor health, and these regulations can create an environment that can influence healthy behavior to be realized in the community. Stakeholders have a strong influence and have high relevance in advocacy efforts. The needs and problems of implementing health promotion activities are more widely known by the holders of the partnership development program. Advocacy activities take various forms, both formally and informally. Formally, for example, presentations and seminars on issues or program proposals that the relevant officials want to ask for support. Informal advocacy activities include visiting officials relevant to the proposed program. To informally ask for support, either in the form of policies or in the form of funds, or other facilities. Advocacy activities with the maximum exercise of authority can be carried out by the Health Center at the sub-district and village levels as the working area of the Health Center. The Health Center can advocate for the sub-district, cross-sectoral leaders at the sub-district level, village/urban village heads, and community leaders in the working area of the Health Center in order to obtain support for personnel, funds, and health promotion facilities/infrastructure for pregnant women. If this advocacy pattern is carried out by the Health Center, then this pattern can be expected to overcome or minimize the limitations of facilities, personnel, and funds for the implementation of health promotion strategies in an effort to consume Fe tablets.[12-14]

Social support is a form of alignment with various parties regarding programs or activities that will be implemented in the community. The suitability of community problems makes a positive response to the activities that will be made. The support of community leaders is expected to be able to bridge between the health program managers and the community as the target. Social support strategies need to be established to create conducive norms and conditions/situations in the community in supporting efforts to consume Fe tablets. Social support is often associated with social marketing and campaigns, as opinion formation requires social marketing activities and campaigns. However, it should be noted that social support is intended to create a supportive atmosphere and mobilize the community in a participatory and partnership manner. A person will feel compelled to want to do something in a social environment where he is in a positive attitude toward their health. To explore participation and support from community leaders and government leaders, the Health Center is expected to be able to provide an understanding that health requires more attention. In addition, it is also necessary to realize that there is an element of mutual need between health workers, the community, and the local government in order to establish mutually beneficial cooperation for all. Problems that arise in the implementation of health promotion strategies are the low creativity and innovation of Health Center officers, village midwives, and health cadres, which are

realized through regular visits to residents' homes, the absence of supervision or monitoring from Health Center officers after counseling, or socialization problems. Thus, the relationship between social support to increasing the efforts of pregnant women to consume Fe tablets will be well established.[15-17]

Society or community is one of the global health promotion strategies for empowerment (empowerment), so community empowerment is very important to do so that the community as the primary target has the will and ability to maintain and improve their health. All community empowerment is expected to help people gain the ability to make decisions and determine the actions they will take related to themselves, especially health. Empowerment of the community can be done through the ability and confidence to use their abilities. The level of knowledge and skills, including the community cadre, still needs to be improved. This is due to the lack of forms of training and health counseling activities to improve the education and skills of the cadres. In addition, the awareness and motivation of cadres need to be maintained and increased through their active participation. This prevention effort needs to be promoted because the household is the smallest part of society, and behavioral changes can have a major impact on the lives and health levels of family members in it. A healthy household is also an asset and a major development in the future that needs to be maintained, improved, and protected. In the initial planning of community empowerment, the things we need to pay attention to are our awareness, clarity, and knowledge about what is being empowered and what will be done. In addition, there is a need for a good understanding of where and who will be empowered, and one thing that is most important but often overlooked is ensuring the willingness and skills of the community to take the empowerment process. Community empowerment in the health sector is basically no different from community empowerment in other fields. Community participation can also be fostered by inviting and giving them the opportunity to participate in health activities and programs. It often happens that people are indifferent to an activity or health program because they feel they are not invited and given the opportunity to participate. Community participation can also be increased by showing that an activity or health program has benefits that can be immediately felt by the community itself. In addition, it can also be improved by providing examples and examples from community leaders and leaders, and this can be done by improving the atmosphere as one of the main strategies for promoting health programs. With this cadre, the cadres can begin to know about health problems and want to know more about health problems, and they are also more optimal in leading themselves to realize the importance of consuming Fe tablets for pregnant women.[18-20]

5. Conclusion

Health promotion strategies, including advocacy, social support, and community empowerment, are effective in improving behavior for consuming Fe tablets in the Bebesen Health Center Work Area, Central Aceh Regency, Indonesia.

6. References

1. Ministry of Health of the Republic of Indonesia. Profile of the Ministry of Health of the Republic of Indonesia. Jakarta. 2019.
2. Central Aceh Regency Office, Aceh Besar Regency Health Profile 2020.
3. Al Ghwass MM, Halawa EF, Sabry SM, Ahmed D. Iron deficiency anemia in an Egyptian pediatric population: A cross-sectional study. Ann Afr Med. 2015; 14(1): 25-31.
4. Austin AM, Fawzi W, Hill AG. Anemia among Egyptian children between 2000 and 2005: Trends and predictors. Matern Child Nutr. 2012; 8(4): 522-32.
5. Abdel-Rasoul GM, El Bahnasy RE, El Shazly HM, Gabr HM, Abdel-Aaty NB. Epidemiology of iron-deficiency anemia among primary school children (6–11 years), Menoufia governorate, Egypt. Menoufia Med J. 2015; 28: 663-9.

6. Tayel D, Ezzat S. Anemia and its associated factors among adolescents in Alexandria, Egypt. Int J Health Sci Res. 2015; 5(10): 260-71.
7. WHO, UNICEF. Focusing on anemia: towards an integrated approach for effective anemia control. Geneva: World Health Organization. 2004; 8.
8. Metwally AM, Saleh RM, El-Etreby LA, Salama SI, Aboulghate A, et al. Enhancing the value of women's reproductive rights through community-based interventions in Upper Egypt governorates: A randomized interventional study. Int J Equity Health. 2019; 18(1): 146.
9. Shiha G, Metwally AM, Soliman R, Elbasiony M, Mikhail NN, et al. An educate, test, and treat program to reduce hepatitis C in Egypt: Results from a community-based demonstration project. Lancet Gastroenterol Hepatol. 2018; 3(11): 778-9.
10. Metwally AM, Saad A, Ibrahim NA, Emam HM, El-Etreby LA. Monitoring progress of the role of integration of environmental health education with water and sanitation services in changing community behaviours. Int J Environ Health Res. 2007; 17(1): 61-74.
11. Metwally AM, Ibrahim NA, Saad A, Abu El-Ela M. Improving the roles of rural women in health and environmental issues. Int J Environ Health Res. 2006;16(2): 133-44.
12. Nabakwe EC, Lichtenbelt W, Ngare DK. Vitamin A deficiency and anemia in young children living in a malaria endemic district of western Kenya. East Afr Med J. 2005; 82(6): 300-6.
13. El Kishawi RR, Soo KL, Abed YA, Manan WA. Anemia among children aged 2-5 years in the Gaza strip-Palestinian: A cross-sectional study. BMC Public Health. 2015; 15: 319.
14. Hashizume M, Kunii O, Sasaki S, Shimoda T, Wakai S, et al. Anemia and iron deficiency among schoolchildren in the Aral sea region, Kazakhstan. J Trop Pediatrics. 2003; 49(3): 172-7.
15. Rojhani A, Niewiadomska-Bugaj M. Nutrition education and anemia outcome in inner city black children. J Fam Ecol Consum Sci. 2004; 32: 116-27.
16. Gitau GN, Kimiywe JO, Waudo JN, Mbithe D. Effects of nutrition education on nutrition knowledge and iron status in primary school pupils of Gatanga district, Muranga County, Kenya. Curr Res Nutr Food Sci J. 2013; 1(2): 115-23.
17. Grover K, Choudhary M. Effectiveness of long term community based nutrition intervention for prevention and management of anemia among adolescent girls. Asian J Dairy Food Res. 2017; 36(3): 235-40.
18. Shet AS, Zwarenstein M, Rao A. Effect of a community health worker-delivered parental education and counseling intervention on anemia cure rates in rural Indian children: A pragmatic cluster randomized clinical trial. JAMA Pediatr. 2019; 173(9): 826-34.
19. Amani R, Soflaei M. Nutrition education alone improves dietary practices but not hematologic indices of adolescent girls in Iran. Food Nutr Bull. 2006; 27(3): 260-4.
20. Kumari J, Dubey RP. Impact of nutrition education on iron deficiency anemia among college students of Banasthali University, Rajasthan. Food Sci Res J. 2016; 7(1): 74-9.