

DOI: <http://dx.doi.org/10.33846/hn51005>
<http://heanoti.com/index.php/hn>



RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn51005>

The Effectiveness of Online Couple Class towards the Increase of Husband Support and the Increase of Haemoglobin Rate of Pregnant Women during the Pandemic

Ayesha Hendriana Ngestiningrum^{1(CA)}, Nurwening Tyas Wisnu², Nuryani³, Teta Puji Rahayu⁴, Ruli Novita Agustina⁵

^{1(CA)}Department of Midwifery, Poltekkes Kemenkes Surabaya, Indonesia; ayeshaendriana.n@gmail.com
(Corresponding Author)

²Department of Midwifery, Poltekkes Kemenkes Surabaya, Indonesia; nurweningtyas_wisnu@yahoo.co.id

³Department of Midwifery, Poltekkes Kemenkes Surabaya, Indonesia; nuryanin941@gmail.com

⁴Department of Midwifery, Poltekkes Kemenkes Surabaya, Indonesia; tetapujirahayu@gmail.com

⁵Kartoharjo Public Health Center, Magetan, Indonesia; ruliagustina28@gmail.com

ABSTRACT

Iron deficiency anemia that often occurs in pregnancies may be due to the pregnant women's inconsistency in consuming Fe tablets. The husbands' role is required to increase their consumption. This research aims to analyze the effectiveness of online couple classes in increasing the husbands' support in consuming Fe tablets of pregnant women. This was quasi-experiment research, with a pretest-posttest one-group design. This research was located at the Kartoharjo Community Health Center Area, Magetan Regency, East Java, Indonesia, in 2020. The population was pregnant women with anemia. The sampling technique was total population sampling. The sample of this research was 18 pregnant women with anemia (Hb <11 g%) and their husbands. The husbands' support was measured using valid and reliable questionnaires. The analysis was tested using the paired sample t-test; and increasing Hb rates also observed in one month during the research. The increasing Hb rate measured by t-test. The results showed that the online couple classes were effective in increasing the husband's support towards the pregnant women's consumption of Fe tablets (p-value: 0.003). The Hb rates of pregnant women with anemia also increased with p-value: 0.0000. With the increase of the husbands' support, the pregnant women with anemia increase the routine in consuming Fe tablets. This consistent consumption increases their Hb.

Keywords: online couple class; husband support; hemoglobin rate; anemia

INTRODUCTION

Pregnancy is a physiological condition, but on its journey, it may become a pathologic pregnancy. A pathologic condition that often happens during pregnancy is iron deficiency anemia.⁽¹⁾

In Indonesia, based on the Basic Health Research (Riskesdas) of 2013, 37,1% of pregnant women experienced anemia. This rate increased to 48,9% in 2018. The data from the Health Service of East Java Province in 2019 shows that 49.027 pregnant women experienced anemia. According to the Health Service of Magetan Regency (2019), 1869 (21,64%) of 8635 pregnant women experienced anemia from January to December 2019. The reality in the field shows that many pregnant women suffer from anemia. From January to December 2019 at the Kartoharjo Community Health Center Area, Magetan Regency, East Java, Indonesia, 86 (25,15%) of 342 pregnant women suffered from anemia.

There are significant impacts of anemia on pregnant women and their fetuses. These pregnant women experience increased risks of pre-eclampsia, placenta previa, and birth with section Caesarea compared to those without anemia. Anemia also increases bleeding, which will require a blood transfusion during the labor process. Then, for fetuses, anemia increases premature birth, small-for-gestational-age live birth, low APGAR score at the first five minutes, and perinatal and neonatal deaths.⁽²⁾

In the standard of anemia management, there are midwifery treatment standards that focus on giving promotive, preventive, and basic curative efforts. Kartoharjo Community Health Center Area has implemented pregnant women classes, counseling on anemia for brides and grooms-to-be, Pregnancy Planning and Complication Prevention, but there are still pregnant women who suffer from anemia. Apart from that, familial support is crucial to help increase pregnant women's consumption of iron tablets. An interview with 8 pregnant women shows that 5 states that their husbands never cared whether or not they consume the iron tablets. This is crucial as one of the main

factors of the pregnant women's low consumption is that they forgot. Thus, the support of the family, especially that of the husband becomes a behavioral factor of pregnant women in consuming Fe tablets. The effort to increase the husbands' support in increasing the pregnant women's consumption of Fe tablets is carried out through Online Couple Classes. It is a promotive activity that is participated by pregnant women and their husbands, where they receive counseling on the risks of anemia. It is hoped to change the pregnant women's behavior on the compliance in consuming Fe tablets. The counseling is carried out online, by forming WhatsApp groups due to the Coronavirus pandemic (Covid-19). The Online Couple Class is a stimulus to change the pregnant women's behavior, this is adopted from Skinner's theory, namely, "Stimulus, Organism, Response."⁽³⁾

This research aims to analyze the increase of the husbands' support towards their wives' behavior in consuming Fe tablets and the increase of the pregnant women's Hb rate after participating in online couple classes.

METHODS

The quasi-experimental design used in this research was the pretest-posttest one-group design. The population in this research was all pregnant women with anemia and their husbands at the Kartoharjo Community Health Center Area, Magetan Regency, East Java, Indonesia. Sampling technique was total population sampling. The sample consisted of 18 couples (pregnant women with anemia and their husbands). The samples were taken after they had fulfilled the inclusion criteria and that they were not part of the exclusion criteria. Meanwhile, the inclusion criteria were pregnant women with anemia (Hb <11 g%), the husband lives at the same house as the pregnant women with anemia, and the pregnant women with anemia and the husbands agree to become respondents and that they agree to sign an agreement letter, the pregnant women and the husbands agree to participate in an online couple class, and the pregnancy is between 13 to 34 weeks. Then, the exclusion criteria were pregnant women with anemia that also suffer from comorbidities and pregnant women with anemia that suffer from nausea and vomiting.

The instrument was in the form of questionnaires to know the family support. This questionnaire had had validity and reliability testing. Then, the data on the increase of Hb was obtained from the Kartoharjo Community Health Center laboratory. The Online Couple Classes were carried out for a month (from April to May 2020). This online class used the WhatsApp application as a medium. A WhatsApp Group (WAG) was created, where its members consist of researchers, pregnant women with anemia, and their husbands. The data on the husbands' support as well as the Hb rate were measured before and after participating in the online class. The Hb rate was measured before participating in the Online Class, and a month later, after the program has ended. In the online class, the researchers deliver materials on the risks of pregnant women with anemia (definitions, signs and symptoms, impacts, methods of Fe consumption, and other things related to anemia). The members were allowed to discuss with each other. The data were analyzed using the paired sample t-test.

RESULTS

Characteristics of Respondents

Table 1. Frequency distribution of the characteristics of pregnant women with anemia

Variable	Frequency	Percentage
Age		
<20 years	0	0
20 – 35 years	17	94.44
>35 years	1	5.56
Education		
Elementary School	1	5.56
Junior High School	1	5.56
Senior High School	10	55.55
University	6	33.33
Occupation		
Civil Servant	1	5.56
Private Employee	6	33.33
Farmer	1	5.56
Not Working	10	55.55
Gestational Age		
13-27 weeks	6	33.33
28-34 weeks	12	66.67

Based on the table above, it is known that most pregnant women in this study were aged 20 to 35 years (94.44%), most obtained senior high school diplomas (55.55%), and most did not work (55.55%) with most pregnancies at week 28-34 (66.67%).

The results of the validity test on the support of the husbands (before and after) as well as the Hb rate (before and after participating in the online couple class) were normally distributed (sig >0.05). Thus, the paired t-test was carried out to the two variables.

Table 2. Effectivity of the online couple class towards the increase of husband support and the increase of Hb rate on pregnant women

Variable	Pre test (Mean±SD)	Min-max	Post test (Mean±SD)	Min-max	p-value
Husbands'support	85.89 ± 7.592	73-98	90.67±8.110	75-100	0.003
Hb Rate	10.122±0.6044	9-10.8	11.233±0.9016	10.8-13	0.000

Based on the table 2, it can be concluded that the online couple classes were effective in increasing the husbands' support towards the pregnant women's Fe tablet consumption (with the p-value of 0.003). there was difference of Hb rate on pregnant women with anemia before and after joined online couple class (with the significance value of 0.000).

DISCUSSION

The results of this research show that the online couple classes are effective in increasing husband support towards the pregnant women's consumption of Fe tablets. They are also effective in increasing the Hb rate of pregnant women with anemia.

Online Couple Class uses the health promotion method in the form of educational intervention core using Whatsapp Group application that is already quite familiar among the society. ⁽⁴⁾ WhatsApp may be used as a medium of education. These are some advantages of using the WhatsApp Group as a medium of health promotion.

WhatsApp users can send educative texts and images. This is a breakthrough which is most commonly applied in social media in the effort to increase the cognitive aspect. ⁽⁵⁾ Materials in the form of text and images ease respondents in understanding the materials given. Based on the research of Wisnu in 2020, the usage of WAGs is effective in increasing pregnant women's behavior in consuming Fe tablets. Pregnant women can understand the materials easily. It increases their behaviors in consuming the Fe tablets. ⁽⁶⁾

The education program through WhatsApp may be optimized by sending educational texts and images. Active learning is applied in the Online Couple Class. Active learning (accepting, participating, and doing) as stated in the Cone of experience of Edgar Dale has a higher retention rate. In this research, participants are encouraged to have an active role. ⁽⁷⁾ Some empirical pieces of evidence explain evidence-based positive impacts in sending educative texts and messages through social media in increasing knowledge. The discussion aspect in the WAG feature gives a significant opportunity to increase the learners' interests. ⁽⁴⁾

When participating in the Online Couple Class, respondents are allowed to discuss the materials. This will increase the knowledge that will influence behavior. It changes the behaviors of the husband to support pregnant women with anemia in consuming Fe tablets. The couple class members may discuss the obstacles they find. It allows suggestions or alternative resolutions from facilitators or other group members. The members may also support each other. This will affect the increase of the husbands' support.

The husbands' support is very significant in changing the behaviors of pregnant women in consuming Fe tablets. Many researchers show that the husbands' support highly influences the wives' behaviors during pregnancy, and even in making the wives decide whether or not they should give exclusive breastfeeding. ⁽⁸⁾ The research of Alfatan in 2018 states that there is a significant relationship between the husbands' support and the pregnant women's behavior in consuming Fe tablets. This research was carried out in Banda Aceh City, Indonesia, and it was participated by 102 respondents. The results of Alfatan's research suggest the involvement of husbands in educating on the Fe tablet consumption. ⁽⁹⁾

Pregnant women who obtained positive support from the husband will also be motivated to increase their behaviors in consuming the Fe tablets. They will consume the tablets more consistently. The consistent consumption of these tablets will increase the Hb rate in the blood. The research results show that the consumption of Fe tablets is effective in increasing the Hb rate of pregnant women at Kemiling Community Health Center, Lampung, in 2016 with the p-value=0,000 (p-value<0,05). ⁽¹⁰⁾ A similar research was carried out in Cibuntu Community Health Center. The research shows a significant effect in the compliance of Fe tablet consumption towards the increase of Hb rate, with the p-value 0.003 (<0.05). ⁽¹¹⁾ The behavior in consuming Fe tablets routinely will minimize the occurrence of complications during pregnancy, labor, or postpartum. It will be easier for the midwives to be responsible for their performances if the patients they handle do not experience complications. ⁽¹²⁾

The usage of WAG in the couple class has another advantage. It is more effective and more cost-effective than the direct counseling method. Short messages can be sent at a certain time, and their scope may reach a large segment of society. The usage of images on health-related information may increase the message recipients' understanding of the material, especially to those with a low rate of literacy. The delivery of information equipped with images will increase the learning interest. The online couple class is low-budget as it uses a media that is well-known by society. This is different from the conventional counsellings, where the pregnant women and their

partners must come and gather at a certain place. This will neither be efficient nor effective in the aspects of time and budget, especially during the Covid-9 pandemic. In the online couple class, the participants do not need to come and gather. Thus, it minimized the rate of Covid-19 infection. This research may be applied in other aspects. The weakness is that it cannot be applied in areas with low internet.

CONCLUSION

Online couple classes are effective in increasing the support of husbands and in increasing the Hb rate of pregnant women with anemia. The online couple classes increase the knowledge, that will affect the behaviors of husbands. It will increase their support towards the pregnant women's Fe tablet consumption. The routine Fe tablet consumption will increase the Hb rate of pregnant women with anemia. The online couple classes may be a health promotion alternative that is effective and low-budget. It is suitable to be carried out during the Covid-19 pandemic.

REFERENCES

1. Baltbangkes Kemenkes RI. Riset kesehatan dasar (Riskesmas) (Basic Health Research). Jakarta: Kemenkes RI; 2018.
2. Smith C, Teng F, Branch E, Chu S, Joseph KS. Maternal and Perinatal Morbidity and Mortality Associated with Anemia in Pregnancy. *Obstet Gynecol.* 2019;134(6):1234–44.
3. Ngestiningrum AH, Santosa BJ. Evaluasi pelatihan Stimulasi, Deteksi, dan Intervensi Dini Perkembangan Anak Berdasarkan Model Evaluasi Pelatihan Kirkpatrick (Evaluation on the Training of Stimuli, Detection, and Early Intervention of Child Development Based on the Kirkpatrick Training Evaluation Model). *2-TRIK Tunas-Tunas Ris Kesehatan.* 2016;6(1):45–52.
4. Ekadinata N, Widyandana D. Promosi Kesehatan Menggunakan Gambar Dan Teks Dalam Aplikasi Whatsapp Pada Kader Posbindu (Health Promotions Using Images and Texts in WhatsApp Application at Posbindu Cadres). *Ber Kedokt Masy.* 2017;33(11):547.
5. Kamel Boulos MN, Giustini DM, Wheeler S. Instagram and WhatsApp in health and healthcare: An overview. *Futur Internet.* 2016;8(3):1–14.
6. Wisnu NT, Ngestiningrum AH. Improving the behavior of consuming fe tablets for pregnant mothers of anemia in the covid pandemic 19. *IJIRR.* 2020;07:7025–8.
7. Ngestiningrum AH, Mutiara K, Wrakusumah FF. Korelasi Pelatihan dengan Kompetensi Bidan dalam Stimulasi, Deteksi dan Intervensi Dini Perkembangan Anak dan Kendala Pelaksanaannya (Correlation of Training with Competence of Widwives in Stimuli, Detection, and Early Intervention of Child Development and the Obstacles in its Application). *2-TRIK: Tunas-Tunas Riset Kesehatan.* 2014;4(4):201–9.
8. Rahayu TP, Ngestiningrum AH. Factors that Influence the Provision of Breastfeeding. *Health Notions.* 2019;3(3):126–34.
9. Alfatan PN, Darmawati. Dukungan Suami Terhadap Kepatuhan Ibu Hamil dalam Mengonsumsi Tablet Zat Besi (Husband's Support on the Compliance of Pregnant Women in Consuming Iron Tablets). *Jim Fkep.* 2018;3(3):208–14.
10. Keswara UR, Wahyudi WT. Pengaruh Pemberian Tablet Fe terhadap Peningkatan Kadar Hb pada Ibu Hamil di Puskesmas Rawat Inap Kemiling Bandar Lampung Tahun 2016 (The Effect of the Administration of Fe Tables on the Increase of Hb Rates of Pregnant Women in Kemiling Community Health Center, Bandar Lampung in 2016). *J Kesehat Holistik.* 2016;10(3):1–4.
11. Hadiyani W, Yunidha V. Pengaruh Kepatuhan Konsumsi Tablet Fe Terhadap Kadar Haemoglobin Ibu Hamil (The Effect of the Administration of Fe Tables on the Increase of Hb Rates of Pregnant Women). *J Ilm Keperawatan (Scientific J Nursing).* 2019;5(1):7–13.
12. Ngestiningrum AH, Sari SD, Pradnyawan WA, Nugroho SS, Iriani D. *Journal of Global Pharma Technology A Midwife : Professional Ethics in Midwifery Practices, Managing Pregnancy and Childbirth Complications, and Legal Rights for Nursing Mothers.*