

THE EFFECTIVENESS OF VIDEO MEDIA AND LEAFLETS IN INCREASING KNOWLEDGE ABOUT ANEMIA FOR PREGNANT WOMEN AT TUNGGAKJATI HEALTH CENTER YEAR 2023

Nariah *, Asep Barkah

Sekolah Tinggi Ilmu Kesehatan Abdi Nusantara, Jakarta

Jl. Swadaya No.7, RT.001/RW.014, Jatibening, Kec. Pd. Gede, Kota Bks, Jawa Barat 17412, Indonesia

Email: nariah.pkmtunggakjati@gmail.com

Abstract

Background: Anemia is a condition where the hemoglobin level, hematocrit and erythrocyte count decrease below normal values. In people suffering from anemia, more often called anemia, the level of red blood cells (hemoglobin/Hb) is below normal values. The incidence of anemia in pregnant women in Indonesia is still quite high, namely 48.9% of the total number of pregnant women. The incidence of anemia in pregnant women at the Tunggakjati Community Health Center has continued to increase in the last three years. **Research Objective:** To determine the effectiveness of video media and leaflets in increasing knowledge about anemia in pregnant women at the Tunggakjati Community Health Center in 2023. **Research Method:** The type of research used in this research is quasi-experimental with the design used is a pre and posttest two group design approach. The population in this study was 117 pregnant women at the Tunggakjati Community Health Center. The sample in this study was 54 respondents. Bivariate analysis used the Wilcoxon test. **Research Results:** Knowledge of pregnant women about anemia in pregnant women after being given video media at the Tunggakjati Community Health Center in 2023 was mostly good, 44 people (81.5%). Most of the knowledge of pregnant women about anemia in pregnant women after being given leaflets at the Tunggakjati Health Center in 2023 was mostly 32 people (59.3%). The average difference in knowledge in the video media group is 8.28, standard deviation 2,023, minimum 4 maximum 12. In the leaflet media group the average is 6.91, standard deviation 2,397, minimum 3 maximum 12 with p-value $< \alpha$ ($0.002 < 0.05$). **Conclusion:** It can be concluded that video media is more effective in increasing knowledge about anemia in pregnant women than leaflet media.

Keywords: Anemia, Knowledge, Leaflet Media, Pregnant Women, Video Media

Introduction

The maternal mortality rate in Indonesia reaches 305 per 100,000 live births. The main cause of maternal death is postpartum hemorrhage. Postpartum bleeding is related to anemia during pregnancy (Ministry of Health, 2021). Pregnancy causes many changes in the mother's body, these changes are to adapt the mother's body to the state of pregnancy. During pregnancy, physical changes will occur that affect the body's reduced use of nutrients so that the body's need for nutritional sources will also decrease in the first few months of pregnancy. For this reason, during pregnancy, pregnant women's nutrition must be maintained. A healthy diet and lifestyle can help the growth and development of the fetus in the mother's womb during the first trimester of pregnancy (Manuaba, 2018).

Anemia is a condition where the levels of hemoglobin, hematocrit and erythrocyte count decrease below normal values. In people suffering from anemia, more often called anemia, the level of red blood cells (hemoglobin/Hb) is below normal values. Hb is a substance that functions to transport

oxygen to all body tissues, including to the body of the fetus carried by the mother, so that if anemia occurs in a pregnant woman, the process of transporting oxygen throughout the body will be disrupted. Women who have low iron reserves during early pregnancy have a significant risk of experiencing iron deficiency anemia because the body's need for iron minerals increases substantially with increasing gestational age (Kulsum, 2020).

The incidence of anemia in pregnant women in Indonesia is still quite high, namely 48.9% of the total number of pregnant women. The incidence of anemia in pregnant women approaches a serious public health problem with an anemia prevalence limit of more than 40%. Anemia not only affects the mother, but also the baby being born. Babies who are born will most likely have little or no iron reserves at all, which will result in anemia in the babies born (Nurfurqoni, 2019).

According to WHO, the impact on fetuses with mothers suffering from anemia is low birth weight (LBW), premature birth and fetal death. This is confirmed by research conducted by Aditanti, namely that 1.49 times low birth weight (LBW) babies were born to mothers suffering from anemia. Similar research conducted in Karachi, Pakistan in 2019 showed that low maternal hemoglobin levels increased the risk of premature birth, LBW, APGAR score <5 and IUFD (Intra Uterine Fetal Death) (Aditanti & Djaiman, 2020).

Anemia in pregnant women in Indonesia is dominated by iron deficiency. Therefore, the government is trying to reduce the incidence of anemia by providing iron tablets (Fe Tablets). Fe tablets are given at a dose once a day for 90 days during pregnancy (Ministry of Health, 2020). Based on the 2022 Karawang Regency Health Profile, giving blood supplement tablets to pregnant women at the Karawang Regency Health Center has an average coverage of 72.7%, however the number of anemia sufferers among pregnant women is still quite high in several areas of the Karawang Regency Health Center.

The condition of anemia will cause the mother to experience many disorders such as dizziness, fainting, miscarriage easily or experiencing a long labor process due to suboptimal contractions and bleeding after delivery. Anemia in pregnant women will cause stunted fetal growth, premature birth and birth with congenital defects. To prevent anemia, it is recommended to increase consumption of foods that contain lots of iron, folic acid, and B vitamins such as liver, meat, egg yolks, anchovies, milk. Nuts such as soybeans, peanuts, edamame, green vegetables such as spinach and katuk. Apart from that, it is good to consume foods that facilitate the absorption of iron, for example vitamin C in natural ingredients. Avoid foods/drinks that inhibit iron absorption, such as coffee and tea (Muliarini, 2019).

Insufficient knowledge about the importance of preventing anemia is thought to be one of the reasons for the high number of cases of anemia in pregnant women in Indonesia, especially in the Karawang Regency area. Providing education is needed to increase understanding about anemia and its prevention. There are several types of techniques and media for delivering education that are usually used by health workers. Providing health information regarding anemia to pregnant women requires educational methods that are packaged as attractively as possible, by using media, the delivery of information and education can be carried out effectively and efficiently. According to Mulyana (2018) effective media is media that looks at the level of community needs. The type of media chosen is print media, where the media is a tool that contains information or notes that will be conveyed in writing. Currently, print media is considered outdated and attracts less attention than electronic media and print media (Mulyana, 2018).

Therefore, innovation is needed in electronic media and print media so that they can attract attention and interest, especially among pregnant women. The choice of media is video and leaflet media, where video and leaflet media are media in the form of videos and leaflets which have the role of conveying health messages and information, the content of health information can be in the form of sentences or images that are packaged in an attractive way (Riyanto, 2020).

Gunawan's research (2021), states that Health Education using video media is more effective in increasing health knowledge than using flip chart media. Respondents who were provided with video counseling had good knowledge because the information conveyed was easier to understand. Video is an intermediary medium in which material is absorbed through sight and hearing, thereby building conditions capable of acquiring knowledge and skills. The material in the video is packaged in the form of moving image effects with an interesting storyline and sound, thus providing a more real picture.

Based on the background above, the author conducted research entitled "The effectiveness of video media and leaflets in increasing knowledge about anemia in pregnant women at the Tunggakjati Community Health Center in 2023".

Methods

The type of research used in this research is quasi-experimental with the design used being a pre and posttest two group design approach. The population in this study was 117 pregnant women at the Tunggakjati Community Health Center. The sample in this study was 54 respondents. Bivariate analysis used the Wilcoxon test.

Table 1. Description of pregnant women's knowledge about anemia in pregnant women after being given video media at the Tunggakjati Community Health Center in 2023

Knowledge is provided by video media	F	(%)
Baik	44	81.5
Kurang	10	18.5
Total	54	100.0

From table 1, it shows that the knowledge of pregnant women about anemia in pregnant women after being given video media at the Tunggakjati Community Health Center in 2023 was mostly good, as many as 44 people (81.5%).

Table 2. Description of pregnant women's knowledge about anemia in pregnant women after being given leaflets at the Tunggakjati Community Health Center in 2023

Knowledge is provided by leaflet media	F	(%)
Baik	22	40.7
Kurang	32	59.3
Total	54	100.0

From table 2, it can be seen that the knowledge of pregnant women about anemia in pregnant women after being given leaflets at the Tunggakjati Community Health Center in 2023 was mostly 32 people (59.3%).

Table 3. Effectiveness of video media and leaflets in increasing knowledge about anemia in pregnant women at the Tunggakjati Community Health Center in 2023

Kelompok	N	Mean	Std. Deviation	Minimum	Maximum	P Value
Media Vidio	54	8.28	2.023	4	12	0,0002
Media Leaflet	54	6.91	2.397	3	12	

From table 3, it can be seen that the results of the Wilcoxon test analysis in the table show that the average value of knowledge in the video media group is 8.28, standard deviation 2.023, minimum

4 maximum 12. In the leaflet media group the average is 6.91, standard deviation 2,397, minimum 3 maximum 12 with $p\text{-value} < \alpha$ ($0.002 < 0.05$). This means that video media is more effective in increasing knowledge about anemia in pregnant women than leaflet media.

Discussion

The effectiveness of video media and leaflets in increasing knowledge about anemia in pregnant women at the Tunggakjati Community Health Center in 2023

Based on the research results, the results of the Wilcoxon test analysis in the table show that the average value of knowledge in the video media group is 8.28, standard deviation 2,023, minimum 4, maximum 12. In the leaflet media group, the average is 6.91, standard deviation 2,397, minimum 3 maximum 12 with $p\text{-value} < \alpha$ ($0.002 < 0.05$). This means that video media is more effective in increasing knowledge about anemia in pregnant women than leaflet media.

Video media is more effective than leaflets because video media has a more concrete level of experience compared to leaflets because with video a person will be more able to combine the two five senses, not just limited to sight, so it is possible to imagine a picture of an action more fully.

Ardianto in Sasmitha et al., (2017) explains that video media has the advantage because it can convey understanding or information in a more concrete or real way than can be conveyed through spoken words or in this case also through writing. This will make a person more enthusiastic, not bored in getting health education, in this case knowledge about anemia in pregnant women. This is also in accordance with the demands of the times where information technology is developing so rapidly. An educator is required to be able to follow the flow of these developments so that learning will become more effective and efficient.

According to research by Ika Septiana (2015), counseling about anemia in pregnant women affects the level of knowledge. More attention is needed in society regarding education about anemia in pregnant women, for example improving communication, collaboration between the Ministry of Education, the Ministry of Health and other related ministries to work together so that outreach activities regarding anemia in pregnant women can be developed (Eryani 2015).

The increase in knowledge was caused by a learning process by the respondent and occurred due to an increase in the subject's sensitivity or readiness for the test given to the respondent. Knowledge is the result of knowing that occurs after people sense a particular object. Sensing occurs through the senses of sight, hearing, smell and touch. Most human knowledge is acquired through the eyes and ears. Video media is a type of audio-visual media. Audio visual media is media that relies on the senses of hearing and sight. Audio visual media is one of the media that can be used in listening learning.

According to Telly Khatarina and Yuliana's research entitled *The Effect of Counseling Through Audio Visual with Knowledge Results After Counseling*, the results showed that there was an influence of anemia education on pregnant women through audio visual with the knowledge results after counseling (Khatarina and Yuliana 2017). This research is in line with research by Lia Kurniasari (2017) showing that knowledge can be influenced by providing video media because videos can reflect more effective absorption of information using the senses of sight and hearing and can increase knowledge compared to just using the sense of sight (Kurniasari 2017).

A leaflet is a small (half a quarto) and thin book, no more than 1 page back and forth containing writing and pictures. The term leaflet comes from book and leaflet, meaning leaflet media is a combination of leaflet and book with a small format (size) like a leaflet. The structure of the contents of a leaflet resembles a book, only the way the contents are presented is much shorter than in a book (Simamora 2015). The advantage of leaflet media is that it can be used as a medium or tool for independent learning and the contents can be studied easily.

According to research by Agustin Wahyu Prabandari (2018) entitled the effect of providing counseling using video and leaflet media on the level of knowledge with the results that there was a difference in increasing knowledge in the experimental group, namely counseling using video media and the control group, namely counseling using leaflet media. Counseling using video media has a greater influence on the level of knowledge compared to leaflet media (Prabandari 2018).

The results of this research are in line with the results of Nyndia Kurniawati's research, namely that video media is better than leaflet media for increasing pregnant women's knowledge about how to deal with complaints during pregnancy at the Surakarta City Regional Hospital. This difference is shown by the significance value (0.000) and the mean value of the video group (9.40) > leaflet group (5.80).

However, the analysis is based on the writing results of Susy Hermaningsih and Nargis. The results of statistical tests to determine the influence of behavioral values using the independent sample T-test show p of 0.600 ($p > 0.05$). Thus, there is no significant difference between leaflet and video media, meaning that H_0 failed to be rejected. This shows that there is no significant difference between leaflet and video media in changing self-care behavior.

In conclusion, both media, both electronic media (video) and print media (leaflets) have an influence on increasing knowledge about anemia in pregnant women. Where the comparison of the mean posttest results for the two counseling methods shows that the video method of counseling is better than the leaflet method of counseling because the mean value of video posttest knowledge is 8.28 which is higher, while the mean value of leaflet posttest knowledge is only 6.91.

Conclusion

1. Knowledge of pregnant women about anemia in pregnant women after being given video media at the Tunggakjati Community Health Center in 2023 was mostly good, 44 people (81.5%).
2. Knowledge of pregnant women about anemia in pregnant women after being given leaflets at the Tunggakjati Community Health Center in 2023 was mostly lacking at 32 people (59.3%).
3. The average difference in knowledge in the video media group is 8.28, standard deviation 2,023, minimum 4 maximum 12. In the leaflet media group the average is 6.91, standard deviation 2,397, minimum 3 maximum 12 with p -value $< \alpha$ ($0.002 < 0.05$). This means that video media is more effective in increasing knowledge about anemia in pregnant women than leaflet media

Acknowledgements

STIKes Abdi Nusantara Midwifery Undergraduate Study Program

References

- [1] Aditianti A, Djaiman SPH. Meta Analisis: Pengaruh Anemia Ibu Hamil Terhadap Berat Bayi Lahir Rendah. *J Kesehat Reproduksi*. 2020;11(2):163–77.
- [2] Kemenkes RI, Pusat Data dan Informasi, Kemenkes RI, Jakarta ; 2021
- [3] Kemenkes RI, Pusat Data dan Informasi, Kemenkes RI, Jakarta ; 2020
- [4] Kulsum, U.Pola Menstruasi Dengan Terjadinya Anemia Pada Remaja Putri. *Jurnal Ilmu Keperawatan dan Kebidanan*, 11 (2), pp. 314-327. 2020
- [5] Manuaba, Ida Bagus. Ilmu Kebidanan Penyakit dan Kandungan dan Kb untuk Pendidikan Bidan. *Jakarta : EGC: 2018*
- [6] Muliarini, P. Pola Makan dan Gaya Hidup Sehat Selama Kehamilan. *Nuha Medika*. Yogyakarta. 2019
- [7] Mulyana, Deddy. Metodologi Penelitian Kualitatif, Edisi Revisi, PT REMAJA ROSDAKARYA, Bandung. 2018
- [8] Nurfurqoni FA. Hubungan antara pengetahuan ibu hamil tentang tablet Fe dengan kejadian anemia di BPM Bidan A., Wilayah Kerja Puskesmas Ciawi. *Jurnal Kebidanan*. 3(4): 171-177. 2020
- [9] Prabandari. Pengaruh pemberian penyuluhan dengan media video dan booklet terhadap tingkat pengetahuan kesehatan reproduksi remaja di smk 2 muhammadiyah bantul. 2018
- [10] Riyanto. Metode Riset Penelitian Kuantitatif Penelitian di Bidang Manajemen, Teknik, Pendidikan dan Eksperimen,. Sleman: CV Budi Utama. 2020