MEDIA PENELITIAN DAN
PENGEMBANGAN KESEHATAN
Vol 35 No 2, Juni 2025

e-ISSN: 2338-3445
p-ISSN: 0853-9987

LOCAL HERBAL INTERACTIVE MEDIA AS A BEHAVIORAL INTERVENTION FOR ANEMIA PREVENTION IN PREGNANCY

The Influence of Local Herbal-Based Interactive Media on Anemia Prevention Behavior Among Pregnant Women

Rr. Nindya Mayangsari[1], Ajeng Hayuning Tiyas[2], Etni Dwi Astuti[3], Erinda Nur Pratiwi[4], Aris Noviani[5]

[1]Bachelor of Midwifery, STIKES Mutiara Mahakam Samarinda, Samarinda, Indonesia
[2]Diploma III Midwifery Study Program, Poltekkes Kemenkes Mamuju, Mamuju, Indonesia
[3]Professional Midwifery Education Program, Sekolah Tinggi Ilmu Kesehatan Bakti Utama Pati, Pati, Indonesia
[4]Professional Midwifery Education Program, Universitas Kusuma Husada Surakarta, Surakarta, Indonesia
[5]Professional Midwifery Education, STIKES Mitra Husada Karanganyar, Karanganyar, Indonesia
*Email: nindyamayangsari@gmail.com

ABSTRAK

Anemia pada wanita hamil merupakan masalah kesehatan masyarakat yang signifikan dan dapat memengaruhi hasil kehamilan ibu dan janin. Salah satu pendekatan efektif untuk mencegah anemia adalah melalui intervensi edukasi yang tepat. Penelitian ini bertujuan untuk mengevaluasi pengaruh media interaktif berbasis herbal lokal terhadap perilaku pencegahan anemia pada ibu hamil. Desain penelitian kuasi-eksperimental dengan pendekatan kelompok kontrol pretest-posttest dilakukan di Puskesmas Sempaja pada 1 Januari hingga 30 Maret 2025. Sebanyak 60 ibu hamil pada trimester kedua dan ketiga dipilih menggunakan purposive sampling dan dibagi menjadi kelompok intervensi dan kontrol. Kelompok intervensi menerima edukasi menggunakan media interaktif tentang herbal lokal, termasuk modul digital, infografis, dan video edukasi mengenai daun kelor, bayam, dan kereklama. Pendidikan menggunakan media interaktif berbasis herbal lokal selama tiga sesi dalam satu minggu, dengan durasi 30-45 menit per sesi yang disampaikan secara tatap muka oleh peneliti. Kelompok kontrol menerima konseling tentang anemia pada ibu hamil sesuai dengan standar pelayanan dari puskesmas sejumlah satu sesi dengan durasi 30 menit secara tatap muka tanpa media interaktif. Data dikumpulkan menggunakan kuesioner yang divalidasi untuk mengukur perilaku pencegahan anemia, yang mencakup pengetahuan, sikap, dan praktik. Analisis data dilakukan dengan uji-t berpasangan dan uji-t independen ($p < 0,05$). Hasil menunjukkan bahwa kelompok intervensi mengalami peningkatan perilaku pencegahan anemia yang signifikan ($p = 0,000$), sedangkan kelompok kontrol tidak mengalami perubahan yang signifikan ($p = 0,083$). Kesimpulannya, media interaktif berbasis herbal lokal efektif dalam meningkatkan perilaku pencegahan anemia pada ibu hamil dan dapat menjadi alternatif pendidikan kesehatan yang inovatif serta relevan secara budaya.

Kata kunci: *edukasi gizi kehamilan, edukasi herbal lokal, media interaktif herbal, pencegahan anemia hamil, perilaku ibu hamil*

ABSTRACT

Anemia in pregnant women is a significant public health issue that can negatively affect maternal and fetal outcomes. One effective approach to preventing anemia is through appropriate educational interventions. This study aims to evaluate the impact of local herbal-based interactive media on anemia prevention behaviors among pregnant women. A quasi-experimental design with a pretest-posttest control group approach was

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

conducted at Sempaja Community Health Center from January 1 to March 30, 2025. A total of 60 pregnant women in their second or third trimester were selected using purposive sampling and divided into intervention and control groups. The intervention group received education using interactive media about local herbs, including digital modules, infographics, and educational videos on moringa leaves, spinach, and kereklama. Education was delivered twice over a two-week period, with each session lasting 45-60 minutes. The control group received standard counseling from the Community Health Center. Data were collected using a validated questionnaire to measure anemia prevention behaviors, including knowledge, attitudes, and practices. Data analysis was conducted using paired t-tests and independent t-tests ($p < 0.05$). The results showed that the intervention group had a significant improvement in anemia prevention behaviors ($p = 0.000$), while the control group showed no significant change ($p = 0.083$). In conclusion, local herbal-based interactive media is effective in improving anemia prevention behaviors among pregnant women and can serve as an innovative and culturally relevant alternative to health education strategies.

Keywords: anemia prevention during pregnancy, interactive herbal media, local herbal education, pregnancy nutrition education, pregnant women's behaviors

INTRODUCTION

Anemia during pregnancy is a critical global health issue, affecting approximately 37% of pregnant women worldwide, with the highest prevalence in low- and middle-income countries, particularly in Southeast Asia and Sub-Saharan Africa [1]. In Indonesia, the prevalence stands at 27.7%, with rural areas showing a higher incidence (31.3%) compared to urban areas (25.5%) [2]. This condition significantly increases maternal and fetal risks, including preterm labor, low birth weight, postpartum hemorrhage, and long-term developmental issues in infants [3]. Given these risks, effective, sustainable, and culturally acceptable prevention strategies are essential.

Despite efforts to address anemia, its persistence highlights gaps in nutritional and healthcare access, particularly in underserved regions. Iron deficiency, the primary cause of anemia, remains a challenge due to limited knowledge, cultural factors, and barriers to healthcare access. Traditional dietary solutions, such as the consumption of iron-rich local leafy greens like sweet potato leaves, cassava leaves, and water spinach, offer a cost-effective and culturally familiar remedy [4], [5]. However, knowledge gaps persist regarding the use of these local foods for anemia prevention.

Recent studies show that educational interventions can significantly improve pregnant women's understanding of anemia prevention [6]–[8]. However, there is a lack of research on the effectiveness of digital, culturally tailored educational tools, such as interactive media, in promoting the adoption of these practices. Interactive media offers an engaging, accessible, and user-friendly platform to deliver culturally relevant health messages, potentially enhancing knowledge retention and behavior change. This study aims to fill this gap by assessing the impact of local herbal-based interactive media on anemia prevention behaviors among pregnant women. Through this approach, the study seeks to provide an innovative and culturally relevant solution to a longstanding public health challenge.

METHODS

This study used a quasi-experimental design with a pretest-posttest approach and a control group to analyze the effect of local herb-based interactive media on anemia prevention behavior in pregnant women. The subjects were pregnant women in the second and third trimesters registered at the Puskesmas Sempaja in Samarinda. Purposive sampling was used, with inclusion criteria including: pregnant women in the second or third trimester, ability to read and write, willingness to participate in the entire

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

study, and no prior participation in a similar educational program in the past three months. Exclusion criteria included pregnant women with complications such as preeclampsia, bleeding, chronic diseases, absence during the intervention, or withdrawal before the study's completion.

The study population consisted of 150 pregnant women in their second and third trimester who were registered at Puskesmas Sempaja. A total of 60 pregnant women were recruited, divided randomly into two groups: 30 in the intervention group and 30 in the control group. The research was conducted over three months, from January 1 to March 30, 2025, and received ethical approval from the Research Ethics Commission of STIKES Mutiara Mahakam Samarinda (letter number: 0123/EC/KEPK-MM/X/2024). Participants' consent was obtained prior to the study, with assurances of confidentiality and voluntary participation.

The research instrument used was a questionnaire on anemia prevention behavior, assessing knowledge, attitudes, and practices. The questionnaire had been validated and tested for reliability in a preliminary study involving 30 respondents with similar characteristics. The validity test using Pearson correlation yielded a calculated r-value of ≥ 0.361 for all items, confirming their validity. The reliability test using Cronbach's Alpha resulted in a value of 0.876, indicating high reliability. The questionnaire consisted of three main sections: knowledge (10 items), attitudes (8 items), and practices (12 items), using a Likert scale for responses. The total score ranged from 0 to 30, with higher scores indicating better anemia prevention behavior. Scores were calculated by summing the responses, with a higher total score indicating more favorable behaviors.

This procedure is carried out in three stages. The first stage is a pretest, which is done for both groups to assess their initial knowledge, attitudes, and practices regarding anemia prevention. In the second phase, the intervention group received three educational sessions using local herbal interactive media for one week. Each session lasted 30-45 minutes and was delivered face-to-face by the researchers with the help of a local midwife. The educational materials, which were developed based on the guidelines of the Ministry of Health of the Republic of Indonesia, include information about anemia, its impact, the importance of iron, and the use of local iron-rich plants such as moringa leaves, spinach, sweet potato leaves, and curcuma xanthorrhiza.

The interactive media consisted of digital modules, visual infographics, and 7–10-minute educational videos presented using tablets or projectors. The media was designed to be engaging and visually appealing to enhance participant involvement.The control group received one standard counseling session lasting approximately 30 minutes (one counseling), which was given by health workers at the Community Health Center. This counseling follows routine antenatal education procedures and does not involve the use of interactive media.

The third stage was a posttest, conducted two weeks after the intervention to assess changes in anemia prevention behaviors in both groups. A follow-up period beyond two weeks could provide insights into the sustainability of behavioral changes, but this study focused on immediate outcomes. Data analysis was performed using SPSS, with paired t-tests to compare pre- and post-intervention scores within each group, and independent t-tests to compare changes between the intervention and control groups. A significance level of $p < 0.05$ was used. To address potential bias, all facilitators were trained in standardizing the delivery of education, and participants were not blinded due to the nature of the intervention. The short duration of the intervention and follow-up period is a limitation, and future studies should consider longer follow-up periods to evaluate sustained changes in behavior.

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

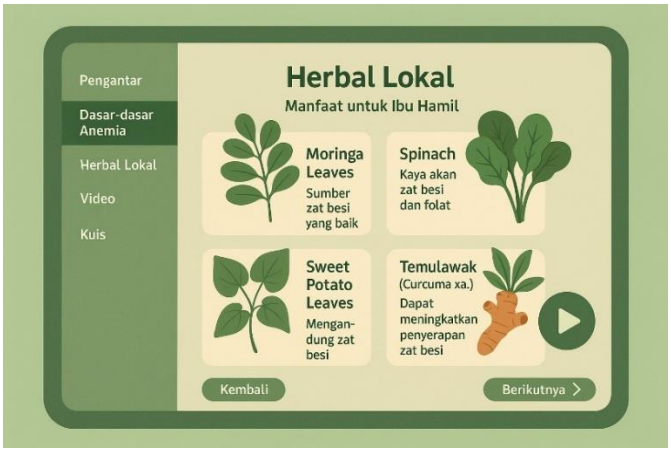

Figure 1. Interactive Media Display

Figure 1 describes the tablet-based interactive media interface used in intervention group education sessions. This module displays visual information about local iron-rich plants such as moringa leaves, spinach, sweet potato leaves, and temulawak. Each plant is equipped with a description of benefits for pregnant women. The navigation consists of a main menu (introduction, anemia basics, local herbs, videos, and quizzes), interactive buttons, as well as video player icons to actively increase participant engagement.

RESULT

The analysis was conducted on data from 60 respondents, consisting of 30 pregnant women in the intervention group and 30 in the control group.

Table 1. Characteristics of Respondents by Group

Characteristic	Category	Intervention (n=30)	Control (n=30)	Total (N=60)
Age (Years)	< 20	3	4	7
	20–35	23	22	45
	> 35	4	4	8
Last Education	Primary/Junior HS	5	7	12
	Senior HS	17	16	33
	Higher Education	8	7	15
Trimester	Second Trrimester	18	19	37
	Third Trimester	12	11	23
Parity	Primigravida	11	13	24
	Multigravida	19	17	36
Occupation	Working	12	11	23
	Not Working	18	19	37

Table 1 shows that the majority of respondents were aged 20–35 years (75%), had completed high school (55%), were in their second trimester (61.7%), and were multigravida (60%). Most respondents (61.7%) were not working, providing the opportunity to participate in educational sessions.

Table 2. Comparison of Pretest and Posttest Scores in Both Groups

Group	Average Pretest Score	Average Post Test Score	P-Value
Intervention	62,4 ± 8,2	82,7 ± 6,9	0,000*
Control	63,1 ± 7,5	65,4 ± 7,1	0,083

*Significant at p<0,05

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

Table 2 shows that The paired t-test results in the intervention group showed a statistically significant improvement in anemia prevention behavior, with the mean score increasing from 62.4 (±8.2) to 82.7 (±6.9) (p = 0.000). This indicates that the use of local herb-based interactive media significantly improved knowledge, attitudes, and practices among pregnant women. In contrast, the control group showed a small increase from 63.1 (±7.5) to 65.4 (±7.1) with a non-significant p-value (0.083), suggesting that standard counseling at the Puskesmas alone did not result in meaningful behavioral change.

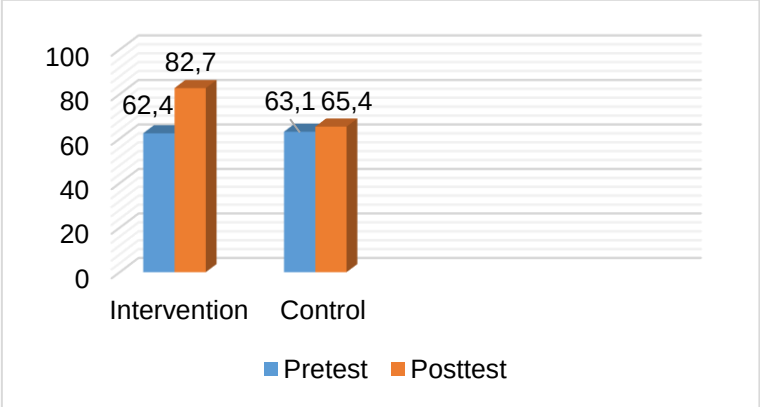

Figure 2. Pretest vs. Posttest Scores in Intervention and Control Groups

Figure 2 shows that The independent t-test comparing posttest scores between the two groups yielded a p-value of 0.001, confirming a significant difference in outcomes attributable to the intervention using local herbal-based interactive media.

DISCUSSION

This study shows that local herb-based interactive media significantly improved anemia prevention behavior in pregnant women, as evidenced by the substantial increase in posttest scores in the intervention group. These findings align with previous research which emphasizes that interactive, culturally relevant educational tools are more effective in increasing public understanding and engagement in disease prevention, particularly among vulnerable groups like pregnant women [9]–[11]. he use of accessible, visually engaging media strengthens information retention and motivation for healthy behavior change [12].

The effectiveness of the interactive media can be interpreted through the lens of Social Cognitive Theory, which emphasizes learning through observation, modeling, and reinforcement. Visual and interactive components—such as videos and infographics—enabled pregnant women to observe preventive practices, reinforcing their confidence and encouraging adoption of healthier behaviors [13], [14]. Moreover, this aligns with the Health Belief Model, where perceived severity, susceptibility, and benefits play a role in influencing behavior. The media highlighted the risks of anemia and the benefits of using local herbs, fostering a stronger internal motivation for behavioral change.

This result also supports previous findings on the success of technology-based health education. Prior studies have shown that digital and multimedia interventions can significantly increase knowledge and improve health attitudes among pregnant women [15]–[17]. Educational videos, for instance, were shown to raise awareness of the importance of nutrient-rich foods in anemia prevention [18]. Thus, interactive media serves not just as a means of information transfer, but also as a motivator for active participation and sustained behavior change.

The use of local herbs such as moringa, spinach, sweet potato leaves, and curcuma plants familiar in the daily lives of the participants—adds contextual relevance and

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

cultural resonance. Research has shown that aligning health education with local values and traditions increases acceptance and practical application [4], [8], [14], [19]–[21]. In Indonesia, where traditional herbal medicine is commonly trusted, this combination of modern delivery with traditional content has strong potential for impact.

Conversely, the control group, which received only standard counseling, did not show a significant improvement. This outcome suggests that conventional health education methods may be less effective in stimulating meaningful behavior change. External factors may have contributed to this, such as limited attention span during routine counseling, lack of visual aids, or inconsistent delivery by health staff. These findings reinforce the need for more dynamic, engaging, and standardized educational approaches [5], [6].

Despite promising results, this study has several limitations. First, the intervention was conducted at a single public Community Health Center (Puskesmas), limiting generalizability to other regions. Second, the intervention duration was short (three sessions in one week), and the behavior was measured only two weeks after, which might not reflect long-term adherence. Third, potential confounding variables such as dietary intake, anemia history, or family support were not controlled. In addition, although facilitator training was conducted, no blinding was applied, which could introduce bias in the intervention delivery.

These limitations may have influenced the study outcomes, but several strengths are also evident. The media was designed with input from local health guidelines, tested for validity and reliability, and tailored to the literacy level and cultural context of the target audience. Its interactive and visual features made it accessible and engaging, especially for participants with lower formal education. The implications of this study suggest that incorporating technology-enhanced, culturally relevant media into antenatal care can significantly improve maternal health behavior. Health professionals especially midwives and nutrition counselors are encouraged to adopt similar strategies in education efforts. Future research should expand the sample to diverse settings, explore longer follow-up durations, and include family or peer involvement to assess the sustainability of behavior change in anemia prevention.

CONCLUSION

This study aimed to analyze the effect of local herbal-based interactive media on the anemia prevention behavior of pregnant women. The findings confirm that this type of educational intervention significantly enhances knowledge, attitudes, and practices related to anemia prevention compared to standard counseling methods provided at public Community Health Centers (Puskesmas). These results highlight that technology-based media, when contextualized with local wisdom such as the use of moringa, spinach, and curcuma, can serve as an innovative and culturally appropriate educational tool in maternal health promotion.

The scientific contribution of this study lies in demonstrating how the integration of local herbal knowledge with interactive technology can effectively bridge gaps in health education, particularly for populations with limited access to formal education. It also supports the growing body of evidence advocating for tailored, visually engaging media to drive health behavior change. However, this study is not without limitations. The sample was restricted to one Community Health Center, limiting the generalizability of findings. The short duration of the intervention and follow-up may not capture long-term behavioral changes. Furthermore, external factors such as family support, dietary intake, and anemia status were not controlled, which may have influenced the outcomes.

Future research should explore the long-term effectiveness of such interventions, involve a more diverse population across various regions, and incorporate the role of

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

family and community support systems to strengthen and sustain behavioral improvements in anemia prevention among pregnant women.

REFERENCES

[1] World Health Organization, "Anaemia in women and children," *World Health Organization*, 2025. https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children (accessed May 05, 2025).

[2] Kemenkes, "Survei Kesehatan Indonesia 2023 (SKI)," *Kemenkes*, p. 235, 2023.

[3] R. E. Black *et al.*, "Maternal and child undernutrition and overweight in low-income and middle-income countries," *Lancet*, vol. 382, no. 9890, pp. 427–451, Aug. 2013, doi: 10.1016/S0140-6736(13)60937-X.

[4] S. S. Sirly Patriani, "Pemanfaatan Pangan Berbasis Kearifan Lokal dalam Upaya Pencegahan Anemia Defisiensi Besi pada Ibu Hamil di BPM Muzilatulnisma Kota Jambi," *J. Abdimas Kesehat.*, vol. 6, no. 3, pp. 456–461, 2024, Accessed: Apr. 25, 2025. [Online]. Available: https://jak.ubr.ac.id/index.php/jak/article/view/720/436

[5] A. Meiranny, A. Z. Arisanti, and P. N. Rahmawati, "Literature Review : Pengaruh Media Edukasi terhadap Pengetahuan Ibu Hamil tentang Anemia," *Faletehan Heal. J.*, vol. 10, no. 2, pp. 222–230, 2023.

[6] Hardiyati, Dian Soekmawaty, Irni Setyawati, and Sufiana, "Penyuluhan Kesehatan Tentang Jenis Tanaman Lokal untuk Meningkatkan Kadar Hemoglobin Sebagai Upaya Pencegahan Anemia Pada Ibu Hamil," *J. Pengabdi. Pada Masy. Indone*, vol. 1, no. 6, pp. 82–88, 2022, Accessed: Apr. 25, 2025. [Online]. Available: https://jurnal.ugp.ac.id/index.php/jppmi/article/view/409/331

[7] H. Wulandari, R. D., & Lestari, "Peran tokoh adat dan agama dalam meningkatkan efektivitas program edukasi kesehatan reproduksi di pedesaan," *Indones. J. Community Engagem.*, vol. 6, no. 1, pp. 45–55, 2024, doi: https://doi.org/10.1234/ijce.v6i1.2024.

[8] A. Rizanggini *et al.*, "Efektivitas Edukasi Anemia Melalui Media Video Dan Leaflet Terhadap Tingkat Pengetahuan Ibu Hamil," *J. Med. Malahayati*, vol. 8, no. 1, pp. 296–305, Apr. 2024, Accessed: Apr. 25, 2025. [Online]. Available: https://ejurnalmalahayati.ac.id/index.php/medika/article/view/10968

[9] P. Adinda, R. Hutagalung, R. S. Parapat, L. Rahmanda, F. H. Andila, and S. H. Purba, "Peran Teknologi Digital Dalam Mendorong Akses Kesehatan Yang Merata Pada Masyarakat : Literatur," *J. Kesehat. Tambusai*, vol. 5, no. 4, pp. 13809–13816, 2024, doi: 10.31004/jkt.v5i4.37796.

[10] A. Yani, "Pemanfaatan Teknologi dalam Bidang Kesehatan," *Promot. J. Kesehat. Masy.*, vol. 8, no. 1, p. 97, 2018.

[11] V. Sarwoyo, A. J. Wahidin, and R. Prayudhi, "Inovasi Edukasi Kesehatan Masyarakat dengan Media Digital di Posyandu Seruni RW 01 Buaran Indah," *Info Abdi Cendekia*, vol. 7, no. 2, pp. 78–86, 2024, doi: 10.33476/iac.v7i2.169.

[12] dewi A. Ummah and G. Kostania, "Penggunaan Text Messaging Program Untuk Meningkatkan Kemampuan Ibu Hamil Dalam Deteksi Dini Tanda Bahaya Kehamilan," *Jurnal Ilmiah Bidan*, vol. 4, no. 3. pp. 19–24, 2019. doi: 10.61720/jib.v4i3.158.

[13] D. M. Yulianti, "Efektivitas Media Edukasi Berbasis Web (E-Wohealth) Terhadap Tingkat Pengetahuan, Sikap Dan Kepatuhan Konsumsi Tablet Tambah Darah Pada Remaja Putri," Universitas Aisrlangga, 2023.

[14] M. Amin, M. Salsabilah, M. I. Pratama, M. Salsabila, M. D. Satria, and B. R. Az-zahra, "Strategi Pencegahan Anemia pada Ibu Hamil melalui Layanan Posyandu Anemia Prevention Strategies for Pregnant Women through Integrated Health Post Services Poltekkes Kemenkes Palembang , Indonesia Anemia pada ibu hamil adalah masalah kesehatan global," vol. 6, no. 4, 2024.

[15] E. Ginko, E. Alajmovic Demirović, and B. Šarić-Kundalić, "Ethnobotanical study of

https://doi.org/10.34011/jmp2k.v35i2.3150

e-ISSN: 2338-3445
p-ISSN: 0853-9987

traditionally used plants in the municipality of Zavidovići, BiH," *J. Ethnopharmacol.*, vol. 302, p. 115888, 2023, doi: https://doi.org/10.1016/j.jep.2022.115888.

[16] R. V. Ribeiro, I. G. C. Bieski, S. O. Balogun, and D. T. de O. Martins, "Ethnobotanical study of medicinal plants used by Ribeirinhos in the North Araguaia microregion, Mato Grosso, Brazil," *J. Ethnopharmacol.*, vol. 205, pp. 69–102, 2017, doi: https://doi.org/10.1016/j.jep.2017.04.023.

[17] G. Benítez, A. El-Gharbaoui, F. Z. Redouan, M. R. González-Tejero, J. Molero-Mesa, and A. Merzouki, "Cross-cultural and historical traceability of ethnomedicinal Asteraceae. Eastern Morocco and Eastern Andalusia: Two sides of a sea in 20 centuries of history," *South African J. Bot.*, vol. 139, pp. 478–493, 2021, doi: https://doi.org/10.1016/j.sajb.2021.03.033.

[18] I. Mutia, W. N. Cholifah, and Y. Yulianingsih, "Pemanfaatan Teknologi Informasi Berbasis Android sebagai Media Penyampaian Informasi Kesehatan di Posyandu," *J. PkM Pengabdi. Kpd. Masy.*, vol. 3, no. 3, p. 266, 2020, doi: 10.30998/jurnalpkm.v3i3.4158.

[19] Z. H. Ihtisyam, "Hubungan Kejadian Anemia Defisiensi Besi pada Kehamilan Lanjut dengan Luaran Persalinan pada Ibu dan Bayi di Rumah Sakit Umum Daerah Provinsi NTB Periode Tahun 2021 dan 2022 | Perpustakaan FKIK Unram," Universitas Mataram, 2023. Accessed: Apr. 25, 2025. [Online]. Available: https://perpustakaan.fkik.unram.ac.id/index.php?p=show_detail&id=16443&keywords=

[20] M. Pardede, N., Alza, N., & Sadeli, "Asupan Zat Besi dan Kejadian Anemia pada Remaja Putri di Daerah Pedesaan," *J. Gizi Indones.*, vol. 9, no. 2, pp. 129–137, 2021, doi: https://doi.org/10.14710/jgi.9.2.

[21] Nina Hidayatunnikmah, Solichatin, Retno Setyo Iswati, and Tetty Rihardi, "Pelatihan Pengolahan Tanaman Herbal Seduh Teh Kelor (Telor) Untuk Mencegah Anemia Pada Ibu Hamil," *J. Abadimas Adi Buana*, vol. 8, no. 2, 2025, Accessed: Apr. 29, 2025. [Online]. Available: https://jurnal.unipasby.ac.id/index.php/abadimas/article/view/9766/5997

https://doi.org/10.34011/jmp2k.v35i2.3150