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THE EFFECT OF WEBSITE-BASED EDUCATION ON KNOWLEDGE, ATTITUDE AND COMPLIANCE WITH CONSUMPTION OF BLOOD SUPPLEMENT TABLETS IN ADOLESCENT GIRLS: SYSTEMATIC REVIEW

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ABSTRACT
Anemia is a significant global health issue, especially among adolescent girls, caused by insufficient iron intake needed for hemoglobin synthesis. This study aims to explore the impact of ePuskesmas-based detection methods and website-based EDUMA on knowledge and adherence to iron tablet consumption among adolescent girls in Indonesia, as an effort to reduce the prevalence of anemia. Method: This study employs a literature review methodology by searching scientific articles through Google Scholar, Proquest, and PubMed platforms. Inclusion criteria encompass quantitative and qualitative articles published between 2019-2024, focusing on the use of ePuskesmas and EDUMA to enhance knowledge and adherence to iron tablet consumption among adolescent girls. Results: Initial identification yielded 622 potential articles, from which 18 articles were selected after inclusion and exclusion criteria. These articles indicate that technology-based approaches, such as Android applications, web platforms, and adherence monitoring systems, are effective in improving knowledge and adherence of adolescent girls to iron tablet consumption. Conclusion: These findings affirm that the integration of information technology in healthcare systems, such as ePuskesmas and website-based EDUMA, can be an effective strategy to enhance understanding and adherence of adolescent girls to iron tablet consumption to address anemia.

Keywords: adherence; anemia; attitude; EDUMA; iron tablet consumption, knowledge; website

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INTRODUCTION

Anemia is a condition of the body in which the number and size of red blood cells or hemoglobin (Hb) levels are reduced, thus inhibiting the distribution of oxygen through the blood throughout the body (Aisah dkk., t.t.). Anemia is a fairly serious health problem, where cases of anemia occur throughout the world, not only in developing countries but also in developed countries. According to WHO, the incidence of anemia in adolescents is high in developing countries, including Indonesia. (Yasira Rusdi & Auliya Rahmy, 2021). Adolescent girls are ten times more likely than adolescent boys to suffer from anemia, which is the most common problem in adolescents. This is due to the fact that adolescent girls are growing, which means they need more iron intake. In addition, an imbalance in nutritional intake also causes anemia in adolescents.(Wuryani dkk., 2024).

WHO's global target for 2025 is to reduce by 50% the number of anemic women of reproductive age. Iron deficiency is most common in adolescent girls aged eighteen to fifteen, because they are currently experiencing a phase of growth and development. Among the effects of anemia in adolescent girls are maternal mortality, low birth weight, and premature birth. Adolescents who suffer from anemia will also experience decreased concentration and work productivity, experience growth problems, namely height and weight become imperfect, and lose immunity, which makes them more susceptible to disease. To prevent and reduce the

prevalence of anemia, higher iron intake is given through a living-based approach. (Yulyani dkk., 2024)

The problem of anemia must be handled properly immediately, anemia can actually be cured both pharmacologically and non-pharmacologically. Pharmacological therapy itself can be done by giving blood-boosting tablets or tablets (Fe). Meanwhile, non-pharmacological actions can be carried out using various natural or traditional ingredients that are believed to be effective in increasing hemoglobin levels in the blood. One herbal ingredient that can be used to increase hemoglobin in the blood is black cumin (Gina Masruroh dkk., 2024).

The prevalence of the spread of increasing cases of anemia in adolescents according to the World Health Organization (WHO) reports that 2 billion people, or more than 30% of people in the world, have anemia. In Southeast Asia, 25–40% of adolescent girls experience mild to severe anemia. (Nadidah et al., 2022). In Indonesia, the prevalence of anemia is still quite high. Based on the results of the Basic Health Research (Riskesdas) conducted in 2018, the prevalence of anemia in Indonesia was 48.9% and the prevalence of anemia based on age group characteristics was highest in the 15-24 age group, including adolescents at 84.6%. Adolescent girls have a higher risk of developing anemia than adolescent boys. This is because adolescent girls experience menstruation and want to stay slim, so they go on a diet to reduce their portion sizes, thus contributing to malnutrition(Lestari dkk., 2024).

The increase in cases of anemia in adolescent girls is influenced by several factors, namely, severe bleeding, poor diet, low iron levels in the body, lack of protein, and vitamin C (Nuari, NA, 2021). Low iron intake caused by low consumption of food as a source of iron greatly influences the occurrence of anemia. Iron is a microelement that is essential for the body, as the main factor in the formation of hemoglobin. One of the impacts of low iron intake can cause iron deficiency anemia. Iron deficiency anemia has several impacts, namely fatigue, decreased concentration, decreased physical activity, lethargy, paleness, dizziness, and shortness of breath. Anemia suffered by adolescent girls if not treated for a long time can cause an increase in MMR (Maternal Mortality Rate) during childbirth, the risk of death in infants, premature births and low birth weight babies. (Indira & Aisah, 2024).

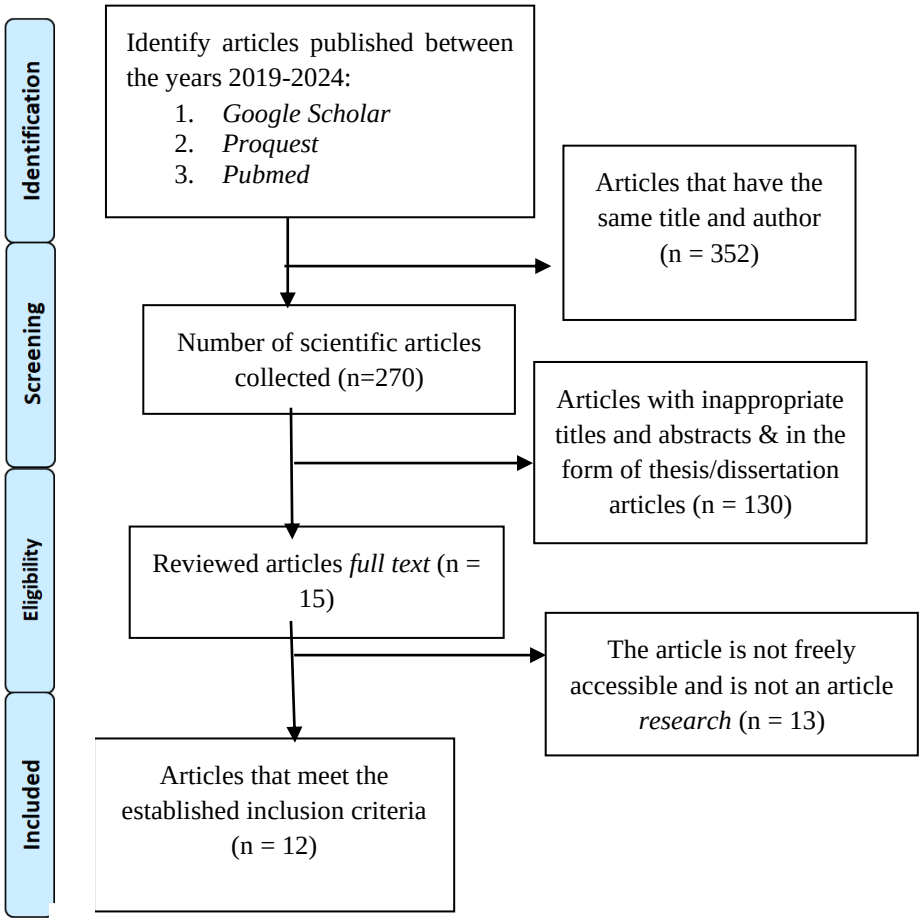
The relationship between iron and hemoglobin levels is that iron is the main component in blood formation, namely synthesizing hemoglobin. Excess iron is stored as the protein ferritin, hemosiderin in the liver, spinal cord, and the rest in the spleen and muscles. If iron stores are sufficient, then the need for the formation of red blood cells in the bone marrow will always be met, however, if iron stores are reduced then there will be an iron imbalance in the body, resulting in hemoglobin levels decreasing below normal limits which is known as iron deficiency anemia. (A. Rahayu dkk., 2024).

Adolescent health promotion has been carried out to address non-compliance by providing education about anemia, taking iron supplements together at school, counseling school cadres, and other efforts to increase compliance among adolescent girls to take iron supplements regularly, one tablet every week. However, these efforts have not succeeded in increasing compliance among adolescent girls to take iron supplements regularly. This is indicated by the fact that anemia in adolescent girls continues to increase. Health promotion to increase compliance among adolescent girls to take iron supplements can be carried out through an approach that is easily accessible, easily accessible, easily accepted, and follows adolescent development. Smartphone-based information and communication technology can be used to implement this method. (Muliana dkk., 2023)

The problem of compliance is difficult to solve because compliance is determined by several factors such as knowledge, attitudes, and behavior. Various efforts have been made to improve knowledge, attitudes, and behavior, but there have been no major changes. Some approaches, such as advice and counseling, do not bring total improvement. Regional congestion, limited time (eg, the number of subjects to be completed) and lack of resources (eg, lack of expert advice) are the biggest obstacles. Based on several previous studies, efforts to improve adolescent health have not been implemented due to several obstacles, including lack of facilities and infrastructure, lack of partnerships, and lack of available resources. (P. H. Putri & Hasanah, 2021)

In the current era of globalization, technological developments have a very positive impact on all elements, one of which is the world of health. Innovation in the process of handling anemia cases in adolescents can be done by utilizing technology, namely as a screening medium, education to monitoring compliance from adolescents in consuming iron tablets so that anemia cases in adolescents can be controlled effectively. The purpose of this study was to determine the effectiveness of the use of technology as an effort to prevent anemia in adolescent girls.

METHOD



Gambar 1. Alur *Literatur review* dengan metode PRISMA (2020)

The research method used in this study is a literature review study. The compilation carried out in this literature review study is systematic and clear in the collection process. The research articles found will be identified, evaluated and interpreted with existing research data with the aim of answering the benefits obtained from the use of electronic medical records.

The purpose of this writing is to determine the effect of epuskesmas-based detection and website-based EDUMA on knowledge and compliance with fe tablet consumption. The literature search procedure is through the google scholar, proquest and pubmed platforms. Searching for articles using a combination of keywords using English is electronic, medical records, quality of service, health centers. The word search is added with the words AND and OR to expand and focus the search for articles. The inclusion criteria set in this writing are articles that discuss epuskesmas, the research design is qualitative and quantitative, articles using English or Indonesian published between 2019-2024, articles in the form of reach articles. The exclusion criteria in this writing are articles in the form of theses or dissertations, articles that cannot be freely accessed. A systematic review was conducted with reference to the PRISMA guidelines (Liberati et al., 2020).

RESULT

Article Search Result Identification (Step 1)

The first step in a systematic review is to identify articles that are relevant to the research topic. This is done by conducting a comprehensive and systematic search across various databases and information sources, such as Google Scholar, Proquest, and Pubmed. At this stage, the researcher obtains a list of potential articles, which will then be further analyzed. In your example case, a total of 622 articles have potentially been identified from the three database sources that are relevant to the topic "The Effect of Epuskesmas-Based Detection and Website-Based EDUMA on Knowledge and Compliance of Fe Tablet Consumption". This step reflects the initial work in mapping the breadth of existing scientific literature related to the topic being studied.

Article Selection (Steps 2 and 3)

After identifying relevant articles, the next step is to conduct a selection based on the inclusion and exclusion criteria that have been set. Inclusion criteria include aspects such as the year of publication (in this case between 2019-2024), type of study, study population, and main variables studied. Articles that do not meet these criteria will then be excluded from the systematic review. This selection process is carried out carefully to ensure that the selected articles have high relevance to the research objectives and can make a significant contribution to the analysis to be carried out. The next step is to collect data from the selected articles, which involves extracting important information such as study design, main results, and findings relevant to the research focus. This process supports the formation of a strong and reliable scientific evidence base to support the conclusions of the systematic review.

Critical Appraisal (Step 4)

Once relevant articles have been selected, the next step is to critically appraise each article that will be included in the systematic review. This assessment aims to evaluate the quality of the research methodology carried out in the articles. Good research should have a strong methodological design, control for bias, representative samples, and appropriate data analysis. This process also includes evaluating the clarity and accuracy of the interpretation of the results, and the relevance of the findings to the context of the research being conducted. This critical appraisal is carried out using pre-determined assessment tools or criteria, such as a risk of bias assessment tool for observational studies or a quality assessment tool for clinical trials. Articles that do not meet the established quality standards can be removed from the systematic review to ensure that the analysis carried out can produce valid and reliable findings.

Combining Data, Summarizing and Presenting Results (Step 5)

The final step in a systematic review is to combine data from articles that have passed critical

appraisal, perform a synthetic analysis, and summarize the main findings. This process involves the use of statistical methods or qualitative analysis methods depending on the type of data collected from the included studies. The results of this analysis are then presented in narrative form and sometimes in tables or diagrams to facilitate understanding and interpretation. At this stage, researchers may also conduct additional analyses, such as meta-analyses where appropriate, to combine the results of similar studies and calculate the combined effects of the interventions or variables studied. The conclusions of this systematic review are then used to develop policy or clinical practice recommendations that are based on evidence found in the relevant, high-quality scientific literature.

Table 1.
Data Charting

No	Researcher Title	Year of Origin	Country	Sampling Technique	Method	Results
1	The Effect Of Health Education On The Knowledge And Attitudes Of Adolescent Health Cadres About Table Fe Consumption In Sma N 1 Kediri Regency	(Rahmawati dkk., 2023)	Indonesia	Kuantitatif, Quasi Eksperimental	Total Sampling	Menunjukkan Peningkatan Signifikan Dalam Pengetahuan Dan Sikap Kader Kesehatan Remaja Tentang Konsumsi Tablet Fe Setelah Intervensi Pendidikan Kesehatan.
2	Effectiveness Of Android-Based Educational Media On Knowledge, Dietary Intake And Hemoglobin Levels For Prevention Of Anemia In Adolescent Females	(Magfirah dkk., 2023)	Indonesia	Kuantitatif, Quasi Eksperimental	Purposive Sampling	Menunjukkan Peningkatan Pengetahuan, Asupan Diet, Dan Kadar Hemoglobin Pada Remaja Perempuan Setelah Menggunakan Media Pendidikan Berbasis Android.
3	Effects Of Anemia Education Using Web-Based She Smart To Improve Knowledge, Attitudes, And Practice In Adolescent Girls	(Ernawati dkk., 2022)	Indonesia	Kuantitatif, Quasi Eksperimental	Total Sampling	Menunjukkan Peningkatan Pengetahuan, Sikap, Dan Praktik Terkait Anemia Pada Remaja Perempuan Setelah Menggunakan Pendidikan Anemia Berbasis Web.
4	The Impact Of The Use Of Video Through The Android Application As An Anemic Educational Media On Increasing Knowledge About Anemia On Adolescent Girls	(Turnip & Arisman, 2022)	Indonesia	Kuantitatif, Quasi Eksperimental	Accidental Sampling	Menunjukkan Peningkatan Pengetahuan Tentang Anemia Pada Remaja Perempuan Setelah Menggunakan Aplikasi Video Android Sebagai Media Edukasi.
5	The Effect Of Using E-Wohealth On Knowledge, Attitudes And Behaviors About Body Image And Anemia In Young	(Ishak dkk., 2023)	Indonesia	Kuantitatif, Quasi Eksperimen	Total Sampling	Menunjukkan Perubahan Positif Dalam Pengetahuan, Sikap, Dan Perilaku Terkait Citra Tubuh Dan Anemia Pada Wanita Muda Setelah Menggunakan E-

No	Researcher Title	Year of Origin	Country	Sampling Technique	Method	Results
	Women					Wohealth.
6	The Effectiveness Of Android Based Applications An Adherence Monitoring System For Adolescent Female Consumption Fe Tablets	(Handayani dkk., 2021)	Indonesia	Kuantitatif, Quasi Eksperimental	Total Sampling	Menunjukkan Efektivitas Sistem Pemantauan Ketaatan Berbasis Android Untuk Konsumsi Tablet Fe Pada Remaja Perempuan.
7	Pengaruh Aplikasi Fe-Mnhy Terhadap Keberhasilan Pemantauan, Pengetahuan Dan Sikap Mengonsumsi Tablet Fe Pada Ibu Hamil Di Puskesmas Ciamis Kabupaten Ciamis Periode 2021	(Nurherliyany dkk., 2022)	Indonesia	Kuantitatif, Quasi Eksperimental	Systematic Random Sampling	Menunjukkan Peningkatan Dalam Keberhasilan Pemantauan, Pengetahuan, Dan Sikap Terkait Konsumsi Tablet Fe Pada Ibu Hamil Setelah Menggunakan Aplikasi FE-MNHY.
8	Edukasi Preventif Anemia Pada Remaja Putri Berbasis Aplikasi Ceria	(Aini & Nian Afrian Nuari, 2024)	Indonesia	Kuantitatif, Quasi Eksperimental	Accidental Sampling	Menunjukkan Efektivitas Aplikasi Ceria Dalam Memberikan Edukasi Preventif Tentang Anemia Pada Remaja Putri.
9	Aplikasi Smartphone "Teenfit" Dalam Meningkatkan Kepatuhan Minum Suplemen Zat Besi Pada Remaja Di Bantul Indonesia	(Rohani dkk., 2022)	Indonesia	Kuantiatif, Quasi Eksperimental	Total Sampling	Menunjukkan Peningkatan Kepatuhan Remaja Dalam Mengkonsumsi Suplemen Zat Besi Setelah Menggunakan Aplikasi "Teenfit".
10	The Effect Of Mhealth On Preventing Anemia In Adolescent Girls: A Literature Review	(S. Rahayu dkk., 2024)	Indonesia	Literature Review	Purposive Sampling	Menyajikan Bukti Bahwa Mhealth Dapat Berperan Dalam Mencegah Anemia Pada Remaja Perempuan, Berdasarkan Tinjauan Literatur Yang Dilakukan.
11	Peran Petugas Kesehatan Dalam Optimalisasi Nutrisi Ibu Hamil Dan Monitoring Kesejahteraan Janin Melalui Model Edukasi Maternal-Neonatal (EMN) Berbasis Family Cultural	(Indriyani dkk., 2020)	Indonesia	Kuantitatif, Quasi Eksperimental	Total Sampling	Penelitian Menunjukkan Peningkatan Signifikan Dalam Pengetahuan Ibu Hamil Tentang Nutrisi Yang Tepat Dan Kepatuhan Terhadap Praktik Nutrisi Sehat Setelah Implementasi Model EMN Berbasis Budaya Keluarga.
12	Anedoc APP: Sistem Pengingat, Pemantau, Dan Edukasi Konsumsi	(Falah dkk., 2022)	Indonesia	Kuantitatif, Quasi Eksperimental	Purposive Sampling	Aplikasi Anedoc Efektif Dalam Meningkatkan Kepatuhan Ibu Hamil Dalam Mengonsumsi

No	Researcher Title	Year of Origin	Country	Sampling Technique	Method	Results
	Tablet Tambah Darah Ibu Hamil Di Puskesmas Sangkrah Kota Surakarta					Tablet Tambah Darah, Menunjukkan Peningkatan Yang Signifikan Dalam Tingkat Kepatuhan Setelah Penggunaan Aplikasi.
13	Sosialisasi Penggunaan Aplikasi (Sumiferos) Pencegahan Anemia Dengan Kepatuhan Ibu Hamil Mengkonsumsi Tablet Besi	(Manik, 2021)	Indonesia	Kuantitatif, Quasi Eksperimental	Total Sampling	Sosialisasi Menggunakan Aplikasi Sumiferos Berhasil Meningkatkan Kepatuhan Ibu Hamil Dalam Mengonsumsi Tablet Besi, Menunjukkan Peningkatan Yang Signifikan Dalam Kepatuhan Setelah Intervensi.
14	Penggunaan Model Edukasi Berbasis Aplikasi Mobile Eduma Terhadap Perubahan Pengetahuan Dan Kepatuhan Ibu Hamil Mengkonsumsi Tablet Tambah Darah	(Permatasari dkk., 2023)	Indonesia	Kuantitatif, Quasi Eksperimental	Accidental Sampling	Model Edukasi Berbasis Aplikasi Mobile (Eduma) Efektif Dalam Meningkatkan Pengetahuan Dan Kepatuhan Ibu Hamil Dalam Mengonsumsi Tablet Tambah Darah, Menunjukkan Perubahan Positif Setelah Intervensi.
15	The Influence Of Video-Based Health Education On Prevention Knowledge And Attitudes Anemia In Adolescent Women At Smk-N 4 Palangka Raya City	(Riani dkk., 2023)	Indonesia	Kuantitatif, Quasi Eksperimental	Probability sampling	Peningkatan rata-rata skor pengetahuan dan sikap remaja setelah diberikan video TikTok edukasi anemua. Hasil uji statistic dengan uji Wilcoxon diperoleh nilai p value 0,000 ($p < 0,05$) artinya ada pengaruh media Video TikTok terhadap sikap pencegahan anemia pada remaja putri
16	Edukasi Pedoman Gizi Seimbang (Pgs) Melalui Media Sosial Dapat Meningkatkan Asupan Protein, Zat Besi, Dan Vitamin C Pada Remaja Putr	(Mayang Sari, 2023)	Indonesia	Kuantitatif, Quasi Eksperimental	*Simple random sampling*	Hasil penelitian diketahui bahwa WhatsApp sebagai media Edukasi Pedoman Gizi Seimbang efektif meningkatkan asupan protein, zat besi dan vitamin C pada wanita usia subur di Kabupaten Kubu Raya, namun tidak signifikan pada peningkatan asupan protein dan zat bes
17	Pengaruh Edukasi Gizi Berbasis Video Terhadap Peningkatan Pengetahuan	(H. P. Putri dkk., 2021)	Indonesia	Kuantitatif, Quasi Eksperimental	Total sampling	Terdapat perbedaan rata-rata skor pengetahuan antara sebelum diberikan edukasi dengan sesudah diberikan edukasi yang

No	Researcher Title	Year of Origin	Country	Sampling Technique	Method	Results
	Remaja Putri Di Jakarta Timur					berarti ada pengaruh edukasi gizi berbasis video terhadap tingkat pengetahuan mengenai Pedoman Gizi Seimbang (PGS), Perilaku Hidup Bersih dan Sehat (PHBS), serta pengetahuan anemia dan pencegahannya pada remaja putri berusia 15-21 tahun di wilayah Jakarta Timur dengan p-value < 0,05
18	Pengaruh Edukasi Gizi Menggunakan Instagram Terhadap Perubahan Perilaku Gizi Seimbang Untuk Pencegahan Anemia Pada Remaja Putri Di Sman 2 Padang	(Yasira Rusdi & Auliya Rahmy, 2021)	Indonesia	Kuantitatif, Quasi Eksperimental	*proporsional random sampling*	Hasil penelitian menunjukkan bahwa terdapat peningkatan pengetahuan tentang gizi seimbang pada kelompok Instagram. Ada perbedaan pengetahuan yang signifikan antara Instagram dan kelompok kontrol. Pemberian edukasi gizi melalui Instagram berdampak pada peningkatan pengetahuan tentang gizi seimbang pada remaja putri untuk mencegah anemia di SMA Negeri 2 Padang
19	Pengaruh Pendidikan Kesehatan Pencegahan Anemia Dengan Metode Games Learning Terhadap Kepatuhan Konsumsi Penambah Darah Remaja	(Widianti dkk., 2024)	Indonesia	Kuantitatif, Quasi Eksperimental	*stratified random sampling*	Hasil penelitian menunjukan bahwa terdapat pengaruh pendidikan kesehatan dengan metode games based learning terhadap kepatuhan konsumsi suplemen penambah darah pada remaja. Metode ini dapat digunakan untuk meningkatkan kepatuhan konsusmi suplemen penambah darah
20	Edukasi Anemia Pada Remaja Putri Melalui E-Leaflet Berbasis Whatsapp Messengger	(Lestari dkk., 2024)	Indonesia	Kuantitatif, Quasi Eksperimental	Total *Sampling*	Hasil menunjukkan adanya peningkatan pengetahuan setelah pemberian edukasi pada remaja putri tentang anemia melalui e-leaflet berbasis whatsapp messenger mampu meningkatkan pengetahuan remaja tentang anemia.

to carry out the final step in the systematic review, data from critically reviewed articles on anemia and nutrition interventions in adolescents and pregnant women in Indonesia were combined and the findings are summarized as follows. Various health education interventions, including the use of Android-based media (2), web (3), Android application videos (4), and mobile applications (8, 14), have been shown to be effective in improving knowledge and attitudes related to anemia and nutrition. In addition, Android-based adherence monitoring applications (6), Anedoc (12), and Sumiferos (13) have been successful in improving adolescent and pregnant women's adherence to taking iron or iron tablets. Interventions such as the E-WoHealth application (5) and the family culture-based EMN model (11) have also shown positive effects in improving knowledge, attitudes, and practices related to body image, nutrition, and reproductive health. The literature review (10) supports the role of mHealth in preventing anemia in adolescent girls, adding to the evidence on the effectiveness of digital platforms in health interventions. The results of this analysis support the recommendation to adopt a technology-based approach in public health programs to improve reproductive health and nutrition among vulnerable adolescents and pregnant women in Indonesia.

DISCUSSION

The effect of ePuskesmas-based detection and website-based EDUMA on knowledge and compliance with Fe tablet consumption can refer to several relevant studies in this context. Research conducted by Nurherliyany et al. (2022) evaluated the FE-MNHY application using an ePuskesmas-based monitoring system for pregnant women at the Ciamis Health Center, showing a significant increase in the success of monitoring, knowledge, and attitudes related to Fe tablet consumption. The results of this study provide strong evidence that an application-based technology approach can effectively improve monitoring and compliance in consuming iron supplements in the pregnant woman population.

Another relevant study is that conducted by Ernawati et al. (2022) regarding the use of EDUMA (Website-Based Health Center Education) to improve knowledge, attitudes, and practices related to anemia in adolescent girls. This method illustrates how a web-based approach can provide effective education and increase understanding of the importance of consuming Fe tablets as an effort to prevent anemia. This study shows that information technology, especially web-based, has the potential to reach a wider population and improve health literacy related to nutrition. In addition, in the context of mobile applications, Handayani et al. (2021) investigated the effectiveness of an Android-based adherence monitoring system in improving adolescent girls' adherence to Fe tablet consumption. This study shows that an application-based approach can effectively improve adherence in following a treatment regimen, which directly contributes to anemia prevention and management efforts among adolescent girls.

In the context of technology integration in health education, a study conducted by Aini & Nian Afrian Nuari (2024) on the Ceria application for anemia prevention education in adolescent girls also noted success in improving knowledge and attitudes related to anemia. Through an interesting approach using a mobile application, this study shows that technology can not only improve health literacy but also influence daily behaviors related to nutrition. Overall, these studies provide an overview of how ePuskesmas-based detection and website-based EDUMA can affect knowledge and adherence to Fe tablet consumption. This approach not only integrates technology to improve access and effectiveness of health education but also illustrates the great potential in reducing the burden of iron deficiency diseases, such as anemia, among vulnerable populations such as adolescent girls and pregnant women in Indonesia.

CONCLUSION

The results of a systematic review of various studies on the use of technology to improve knowledge and compliance with Fe tablet consumption in adolescents and pregnant women in Indonesia show that technology-based approaches, such as mobile applications (such as FE-MNHY, Anedoc, and Ceria) and web (such as EDUMA), are effective in improving understanding of anemia, nutritional knowledge, and compliance with the use of Fe tablets. This technology integration has also been shown to support public health programs and can be a valuable strategy in preventing anemia and increasing health literacy among vulnerable populations such as adolescents and pregnant women in Indonesia.

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