



The influence of nutritional literacy through pocket books on mothers knowledge and attitudes in giving vitamin a to toddlers in the work area of the community health center

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ABSTRAK

Latar Belakang: Vitamin A sangat penting untuk pertumbuhan dan ketahanan tubuh terhadap penyakit. Kekurangannya dapat menyebabkan kebutaan yang dapat dicegah dan meningkatkan tingkat morbiditas dan kematian, terutama pada balita. Di Indonesia, cakupan suplementasi vitamin A masih relatif rendah (76,68%). Di Provinsi Bengkulu, prevalensi kekurangan vitamin A terendah ditemukan di Kota Bengkulu. Sekitar 10-15% anak Indonesia di bawah usia lima tahun menderita kekurangan vitamin A.

Tujuan: Penelitian ini bertujuan untuk mengevaluasi efektivitas literasi gizi menggunakan buku saku tentang pengetahuan dan sikap ibu terkait suplementasi vitamin A untuk balita.

Metode: Penelitian ini menggunakan desain kuasi-eksperimental dengan pendekatan pretest-posttest satu kelompok. Sampel terdiri dari 60 ibu (30 pada kelompok intervensi dan 30 pada kelompok kontrol), dipilih secara sengaja dari 772 orang tua yang hadir di Posyandu (posko pelayanan kesehatan terpadu) di kawasan Puskesmas Sawah Lebar pada Mei 2024. Data dikumpulkan melalui kuesioner pre-test dan post-test intervensi, kemudian dianalisis menggunakan uji chi-kuadrat dan regresi logistik multivariat.

Hasil: Temuan penelitian menunjukkan peningkatan pengetahuan dan sikap yang signifikan pada kedua kelompok setelah intervensi ($p\text{-value} < 0,001$), meskipun perbedaan antar kelompok tidak signifikan secara statistik. Kelompok intervensi yang menggunakan pocketbook menunjukkan peningkatan rata-rata yang sedikit lebih tinggi dalam pengetahuan dan sikap.

Kesimpulan: Literasi gizi melalui penggunaan dompet efektif dalam meningkatkan pengetahuan dan sikap ibu terhadap suplementasi vitamin A dan berpotensi mendukung keberhasilan program vitamin A di masyarakat.

KATA KUNCI: balita; literasi gizi; vitamin A

ABSTRACT

Background: Vitamin A is essential for growth and the body's resistance to disease. Its deficiency can lead to preventable blindness and increase morbidity and mortality rates, especially among toddlers. In Indonesia, the coverage of vitamin A supplementation remains relatively low (76.68%), and in Bengkulu Province, the lowest prevalence of vitamin A deficiency is found in the city. Approximately 10–15% of Indonesian children under the age of five suffer from vitamin A deficiency.

Objectives: This study aims to evaluate the effectiveness of nutritional literacy using a pocketbook on mothers' knowledge and attitudes regarding vitamin A supplementation for toddlers.

Methods: The research used a quasi-experimental design with a one-group pretest-posttest approach. The sample consisted of 60 mothers (30 in the intervention group and 30 in the control group), selected purposively from 772 parents attending the Posyandu (integrated health service post) in the Sawah Lebar Community Health Center area in May 2024. Data was collected via pre- and post-intervention questionnaires, then analyzed using chi-square and multivariate logistic regression tests.

Results: The results showed a significant improvement in knowledge and attitudes in both groups after the intervention ($p = 0.000$), although the difference between the groups was not statistically significant. The intervention group that used the pocketbook demonstrated a slightly higher average increase in knowledge and attitudes.

Conclusions: Nutritional literacy through the use of pocketbooks is effective in improving maternal knowledge and attitudes toward vitamin A supplementation and has the potential to support the success of vitamin A programs in the community.

KEYWORDS: nutritional literacy, vitamin A, toddlers

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INTRODUCTION

Globally in 2019, it was found that 14.73% of children and adolescents in middle-income countries and 24.54% in low-income countries experienced a deficiency of Vitamin A. The prevalence of KVA was highest in children aged 0-5 years (28.22%), followed by children aged 6-12 years (10.09%), adolescents aged 13-18 years (20.76%). The prevalence of KVA was significantly higher in the low socio-demographic index area (29.67%) compared to the middle to upper socioeconomic area (5.17%). 68 out of 165 low and medium socio-demographic index countries (41.21%) are classified as regions with moderate to severe vitamin A deficiency prevalence (1). Vitamin A deficiency is still a public health problem according to the World Health Organization (WHO), with 6-7 million new cases of night blindness in toddlers each year, approximately 10% of whom suffer from corneal damage (2). Of those suffering from corneal damage, 60% die within one year, while 25% of those who live. The coverage of giving Vitamin A

to toddlers aged 6-59 months in Indonesia in 2019 was 76.68% (still low); this is not by the target coverage of giving Vitamin A to toddlers aged 6-59 months, which should be all toddlers (100%) already get Vitamin A (3). The province with the highest percentage of Vitamin A coverage is D.I. Yogyakarta (100.00%), while the province with the lowest rate is Papua (31.97%). As many as 14.6% of children under five had serum retinol levels $<20 \mu\text{g/d}$ the prevalence of being given vitamin A not according to standards was 29.04%, and the prevalence of never receiving Vitamin A was 16.84% (4).

Vitamin A deficiency (VAD) continues to be a significant public health issue in Indonesia, affecting approximately 10-15% of children under five, especially in areas with limited access to vitamin A-rich foods. This deficiency compromises immunity and increases the risk of childhood mortality (5). Efforts to address this include fortified food programs and targeted supplementation for vulnerable groups,

particularly children and pregnant women, whose prevalence rates in regions like Bengkulu. Vitamin A deficiency contributes to 2% of deaths in children under the age of 5, which equates to about 1 to 3 million deaths each year. Sub-Saharan and South Asian regions account for 95% of deaths caused by vitamin A deficiency (6). Vitamin A is an important nutrient the body needs for growth and resistance to disease (7). VAD has become one of the leading causes of visual impairment worldwide (8). Vitamin A deficiency can cause preventable blindness in children and increase the risk of morbidity and death. Daily intake of Vitamin A from food is still low, so nutritional supplementation in Vitamin A capsules is needed (6). Food sources of Vitamin A come from animal products such as meat, eggs, milk, and liver and also from vegetable products that contain beta-carotene (pro-Vitamin A), namely colorful fruits and vegetables such as carrots, spinach, and cabbage, broccoli, watermelon, melon, papaya, mango, tomatoes and peas (9).

The prevalence of subclinical Vitamin A deficiency in toddlers is still high, so the high-dose Vitamin A supplementation program given twice a year to toddlers aged 6–59 months, which started in 1978, is still being continued (10). Even though the high-dose Vitamin A supplementation program has been implemented and the coverage is quite high, the proportion of toddlers not covered by the program is relatively large. Hence, there is still a possibility of a risk of vitamin A deficiency (11). The criteria for toddlers are 6–59 months with data on vitamin A capsule coverage, mother's characteristics (age, knowledge, education, number of children, employment), and knowledge of the location of health services and household access to these health services (5). Several factors influence the lack of Vitamin A consumption, namely the level of knowledge in line with education level, occupation, age, number of children, and sources of vitamin A information obtained by the mother, as well as several socio-cultural influences in society. In the context of Bengkulu, these factors likely manifest as limited awareness among mothers regarding the importance of diverse, vitamin A-rich foods and the benefits of supplementation. This can be compounded by lower educational attainment, which may hinder the comprehension of health

information, and economic constraints that limit access to varied and nutritious food sources. Additionally, traditional beliefs or practices might influence dietary choices and the acceptance of health interventions. Access to health services and consistent information dissemination also plays a crucial role, as mothers with less exposure to health education or facing barriers to attending health services might have lower knowledge and compliance rates regarding vitamin A consumption for their children.

In PMK number 43 of 2016 concerning Minimum Service Standards for the Health Sector, it is stated that every toddler receives vitamin A capsule service twice a year, giving vitamin A capsules as intended in Minister of Health Regulation number 25 of 2014 concerning Children's Health Efforts, is carried out once for children ages 6 (six) months to 11 (eleven) months and two (two) times a year for children aged 12 (twelve) months. Vitamin A deficiency can affect protein synthesis, cell growth, and differentiation. Vitamin A supplementation given only once has been reported to reduce mortality and morbidity (12). Research consistently shows that nutrition education positively influences knowledge and attitudes toward healthy eating behaviors, making it a vital tool for promoting better health outcomes. Studies have demonstrated that targeted nutrition education improves individuals' understanding of nutrient requirements and healthy food choices, especially in populations with limited prior knowledge or access to diverse foods (5). A pocketbook can be particularly effective in delivering this education because it provides a portable, easily accessible resource that can be referenced anytime. Unlike digital resources, a physical pocketbook can be used in settings with limited technology access, reinforcing learning through repeated, convenient usage. This approach is beneficial in community and school settings, where quick reference guides can support long-term behavior change and allow individuals to engage with nutritional guidelines practically and regularly (13).

In efforts to overcome vitamin A deficiency in children, nutrition is one of the potential programs to improve the quality of human resources (14). Many programs can be provided to increase parental compliance with giving vitamin A to

children (15). One way is to promote health to parents of children using health education media. Health education media are all means or efforts to facilitate the delivery and reception of messages or information from communicators through print, electronic, visual, and outdoor media (16). The target can increase their knowledge to change positive health behavior. One method of health promotion using visual persuasive message delivery is education using leaflets (17).

Despite long-standing national vitamin A supplementation programs, vitamin A deficiency (VAD) remains a serious public health issue globally and in Indonesia, particularly among children aged 0–5 years. The uneven coverage and failure to meet target levels highlight program inefficiencies, with significant disparities between provinces. This issue is worsened by low maternal awareness of vitamin A's importance, limited access to vitamin A-rich foods, and socioeconomic and cultural factors affecting dietary behavior. Additionally, low maternal nutritional literacy driven by limited education, employment status, and access to health information contributes to poor adherence in administering vitamin A to children. Therefore, it is important to explore the extent to which maternal nutritional literacy can be improved through educational media such as pocket books, as well as how this can affect mothers' knowledge and attitudes towards vitamin A administration to toddlers. This research aims to determine the effect of nutritional literacy through pocketbooks on mothers' knowledge and attitudes toward giving vitamin A to toddlers in the Sawah Lebar Community Health Center Working Area, Bengkulu City, in 2024.

MATERIALS AND METHODS

This study used a one-group pretest-posttest quasi-experimental design to evaluate the effect of nutritional literacy through pocketbooks on mothers' knowledge and attitudes towards giving Vitamin A to toddlers in the Sawah Lebar Community Health Center area, Bengkulu City, in May 2024. Sampling using purposive sampling, 60 mothers (30 intervention and 30 control) were selected from the 772 parents attending Posyandu in the area. The inclusion criteria were as follows: mothers with toddlers aged 12–59 months who

regularly attend Posyandu services, are literate in the local language to understand the pocketbook content and consent to participate in the study through both pretest and posttest evaluations. Exclusion criteria included mothers or children with health constraints that could impede participation, mothers with substantial prior knowledge of nutrition and vitamin A, those recently involved in other nutrition programs, and mothers unable to commit to the full study duration. The researcher obtained this information through initial screening interviews and background questionnaires administered before participant selection. These criteria ensure that the sample is representative and that the intervention's effects on nutritional literacy are accurately measured. No explicit matching was performed in subject selection; purposive sampling was used to select mothers based on inclusion and exclusion criteria. Substantial prior knowledge among mothers was measured via a pretest questionnaire, and mothers with high scores were excluded to ensure the intervention's effects could be accurately observed in those who needed knowledge improvement.

The nutritional literacy pocketbook was developed through a structured multi-stage process. The initial phase involved a comprehensive literature review on toddler nutritional needs, particularly concerning Vitamin A, and effective health education strategies. This material was then adapted to the local Bengkulu context, considering dietary habits, food availability, and community understanding. Consultations with local nutritionists and healthcare professionals were also conducted to ensure scientific accuracy and cultural relevance. The pocketbook's design was made visually appealing with simple illustrations and easy-to-understand language to be accessible to mothers with varying educational backgrounds. Before finalization, limited pilot testing was conducted with several mothers to gather feedback and refine the content and layout. The pocketbook's content includes essential information on Vitamin A, such as its functions, sources, signs and symptoms of Vitamin A Deficiency (VAD), supplementation programs, benefits, and correct administration methods. In this study, the intervention group received nutritional literacy using the pocketbook.

Each mother in this group was given a copy and participated in a face-to-face education session led by the researcher. This session involved in-depth explanations of the pocketbook's content, interactive discussions, and opportunities for mothers to ask questions. The researcher ensured each mother understood the material and encouraged them to read and refer to the pocketbook at home. Follow-up contact was also made to ensure comprehension and continued use of the pocketbook. Conversely, the control group received a leaflet containing brief information derived from the pocketbook. The independent variable was nutritional literacy through pocketbooks, while the dependent variables were the mothers' knowledge and attitudes. The data collection technique was based on primary data, namely data directly obtained from respondents using a questionnaire regarding nutritional literacy.

The Knowledge and Attitude Questionnaire was used to measure mothers' knowledge and attitudes toward giving Vitamin A to toddlers. Secondary data was obtained from the health center, namely the name of the posyandu in the Sawah Lebar area of Bengkulu City and the cadre's address and name. After the data is collected, it is then recapitulated for analysis. After the data has been processed and analyzed, the frequency distribution of each variable will be shown. After all the data is collected, the Knowledge and Attitude data is entered into Microsoft Excel. It will be entered as master data and then processed by SPSS 26.0 so that Univariate and Bivariate analyses are carried out. The data analysis tests used are as follows: the Independent T-Test if the data is normally distributed and the groups are independent; the Mann-Whitney U Test if the data is not normally distributed and the groups are independent; the Paired T-Test if the data is normally distributed and the samples are paired; and the Wilcoxon Signed Rank Test if the data is not normally distributed and the samples are paired. The data analysis used is univariate and bivariate. This research has been approved by the Health Research Ethics Committee of the Bengkulu Ministry of Health Polytechnic and is ethically appropriate for conducting research with No. KEPK.BKL/365/05/2024.

RESULTS AND DISCUSSIONS

Based on **Table 1**, it is known that based on age, there is a significant difference between the intervention group and the control group with a p-value of 0.000. Most of the respondents in the intervention group were aged 20-35 years (90%), while in the control group, only 13.3% were in that age range. In contrast, the control group had a higher proportion of people under 20 (56.7%) than the intervention group, which did not have respondents under 20. In addition, the control group also had more respondents aged over 35 years (30%) than the intervention group (10%). Participants were selected using purposive sampling from parents attending Posyandu in the study area. A total of 60 mothers were recruited, with 30 assigned to the intervention group and 30 to the control group. Inclusion criteria required mothers to have toddlers aged 12–59 months and to regularly attend Posyandu services. To reduce selection bias and ensure comparability between the intervention and control groups, samples were selected to have varied demographic characteristics. However, the homogeneity test results still showed differences based on age characteristics between the two groups.

The education level of respondents in the two groups also shows variations. Most respondents in both groups had high school/equivalent education, with 60% in the intervention group and 63.3% in the control group. However, there was a difference in the proportion of respondents who had a college education, where the control group had 20% of respondents with a college education compared to only 3.3% in the intervention group. This difference is not statistically significant, with a p-value >0.05, indicating that the level of education between the two groups is homogeneous. The education level of respondents in the two groups also shows variations. Most respondents in both groups had high school/equivalent education, with 60% in the intervention group and 63.3% in the control group. However, there was a difference in the proportion of respondents who had a college education, where the control group had 20% of respondents with a college education compared to only 3.3% in the intervention group. This difference is not statistically significant, with a p-value >0.05,

indicating that the level of education between the two groups is homogeneous.

Regarding occupation, most respondents in both groups were housewives (IRT), with 88.7% in the intervention group and 76.7% in the control group. The control group had more respondents who worked as civil servants (10%) and were self-employed (13.3%) compared to the intervention group, which had no civil servant respondents and only 6.7% were self-employed. This difference is also not statistically significant, with a p-value of 0.119, indicating that the distribution of work between the two groups is not significantly

different. The age of the toddlers who were the research subjects was also analyzed. Most children in both groups were aged 24-59 months, with 70% in the intervention group and 76.7% in the control group. The intervention group had more children aged 12-23 months (30%) than the control group (20%). Only the control group had children aged 6-11 months (3.3%). This difference in children's ages is not statistically significant, with a p-value of 0.429, indicating that the distribution of children's ages between the two groups is homogeneous.

Table 1. Mother's characteristics in the sawah lebar community health center working area, Bengkulu City

Respondent characteristics	Intervention (n=30)		Control (n=30)		p-value ^a
	n	%	n	%	
Age					
20-35 Years	27	90	4	13.3	0.000*
< 20 Years	0	0	17	56.7	
> 35 Years	3	10	9	30	
Education					
Elementary School/Equivalent	3	10	0	0	0.63
Middle School/Equivalent	8	26.7	5	16.7	
High School/Equivalent	18	60	19	63.3	
College	1	3.3	6	20	
Work					
IRT	26	88.7	23	76.7	0.119
civil servants	0	0	3	10	
Private employees	2	6.7	0	0	
Self-employed	2	6.7	4	13.3	
Child Age					
6-11 Months	0	0	1	3.3	0.429
12-23 Months	9	30	6	20	
24-59 Months	21	70	23	76.7	

^aChi-Square test

Overall, the analysis of demographic characteristics shows that although there are some differences in respondents' ages and educational levels, the two groups have a relatively even distribution regarding employment and children's ages. This is important to ensure that differences in research results between the intervention and control groups can be attributed more to the treatment provided (pocketbook media and leaflet media) rather than other demographic factors. **Table 2**

describes the pretest stage; the initial knowledge scores in both groups show almost the same results.

The intervention group had a value range (Min-Max) of 20-50 with a mean of 36.83 and a Standard Deviation (SD) of 10.71, while the control group had a value range of 20-50 with a mean of 34.93 and 9.78. The Mann-Whitney U test showed a p-value of 0.564, which means there was no significant difference between the two groups at the pretest stage.

Table 2. increase in knowledge before and after nutrition literacy using pocket books and leaflets

	Knowledge	Intervention	Control	p-value ^a
Pretest	Min Max	20-50	20-50	0.564
	$\bar{X} \pm SD$	36.83 $\pm$ 10.71	34.93 $\pm$ 9.78	
Posttest	Min Max	60-100	60-90	0.000*
	$\bar{X} \pm SD$	78.33 $\pm$ 13.41	75.50 $\pm$ 6.21	
	p-value^b	0.000*	0.000*	
Delta	Min Max	10-60	20-70	0.647 ^a
	$\bar{X} \pm SD$	41.50 $\pm$ 13.84	40.57 $\pm$ 20.70	

a. wilcoxon signed rank test b. mann whitney u test

This indicates that both groups had comparable levels of knowledge before the intervention was carried out. After the intervention, the post-test results showed a significant increase in knowledge in both groups. The intervention group scored 60-100 with a mean of 78.33 and 13.41, while the control group had a score range of 60-90 with a mean of 75.50 and 6.21. The Mann-Whitney U test shows a p-value of 0.000, which means there is a significant difference between the two groups at the post-test stage. These results indicate that the nutritional literacy intervention through pocketbooks and leaflets increased mothers' knowledge about vitamin A. The higher increase in the intervention group shows that pocketbooks are more effective in conveying information than leaflets.

Changes in knowledge from pretest to posttest (delta) were also analyzed to see how much improvement occurred. The intervention group showed a value change range of 10-60 with a mean of 41.50 and 13.84, while the control group

showed a value change range of 20-70 with a mean of 40.57 and 20.70. The Mann-Whitney U test revealed a p-value of 0.647, which means there was no significant difference in increasing knowledge between the two groups. However, both groups experienced a significant increase in knowledge after the intervention, as shown by the p-value of 0.000 from the Wilcoxon Signed Rank Test for both groups.

These results indicate that although both nutritional literacy methods (pocketbook and leaflet) were effective in increasing maternal knowledge, there was no significant difference in the magnitude of the increase in knowledge between the two groups. This indicates that both media can be used as effective educational tools to increase mothers' knowledge about the importance of vitamin A for toddlers. However, significant differences in post-test results between the two groups indicate that pocketbooks provide a more consistent impact in increasing mothers' knowledge.

Table 3. Changes in attitudes before and after nutrition literacy using pocket books and leaflets

	Attitude	Intervention	Control	p-value ^a
Pretest	Min-Max	20-50	20-50	0.690
	$\bar{X} \pm SD$	35.83 $\pm$ 9.74	36.83 $\pm$ 10.71	
Posttest	Min-Max	60-100	60-86	0.000*
	$\bar{X} \pm SD$	77.33 $\pm$ 10.15	76.27 $\pm$ 6.40	
	p-value^b	0.000*	0.000*	
Delta	Min-Max	40-60	18-60	0.152
	$\bar{X} \pm SD$	41.50 $\pm$ 4.385	39.43 $\pm$ 10.67	

^aMann Whitney U

^bWilcoxon Signed Rank

Table 3 shows that at the pretest stage, the initial attitude scores in both groups showed almost the same results. The intervention group had a value range (Min-Max) of 20-50 with a mean of 35.83 and a Standard Deviation (SD) of 9.74, while the control group had a value range of 20-50

with a mean of 36.83 and 10.71. The Mann-Whitney U test showed a p-value of 0.690, which means there was no significant difference between the two groups at the pretest stage. This shows that both groups had comparable levels of attitudes before the intervention was carried out.

After the intervention, the post-test results showed a significant improvement in attitudes in both groups. The intervention group scored 60-100 with a mean of 77.33 and 10.15, while the control group had a score range of 60-86 with a mean of 76.27 and 6.40. The Mann-Whitney U test shows a p-value of 0.000, which means there is a significant difference between the two groups at the post-test stage. These results indicate that nutritional literacy interventions through pocketbooks and leaflets have improved mothers' attitudes. The higher increase in the intervention group shows that the pocketbook is more effective in influencing attitudes than the leaflet.

Changes in attitudes from pretest to posttest (delta) were also analyzed to see how much improvement occurred. The intervention group showed a value change range of 40-60 with a mean of 41.50 and 4.385, while the control group showed a value change range of 18-60 with a mean of 39.43 and 10.67. The Mann-Whitney U test revealed a p-value of 0.152, which means there was no significant difference in attitude improvement between the two groups. However, both groups experienced significant improvements in attitudes after the intervention, as shown by the p-value of 0.000 from the Wilcoxon Signed Rank Test for both groups.

These results indicate that although both nutritional literacy methods (pocketbook and leaflet) were effective in improving mothers' attitudes, there was no significant difference in the magnitude of improvement in attitudes between the two groups. This identifies that both media can be used as effective educational tools to improve mothers' attitudes about the importance of vitamin A for toddlers (18). However, significant differences in post-test results between the two groups indicate that pocketbooks provide a more consistent impact in improving mothers' attitudes (19). The statistical tests used in this research include the Wilcoxon sign rank and Mann-Whitney U tests. Bivariate analysis aims to determine the impact of nutrition education before and after the intervention using a pocketbook for the intervention group and leaflets for the control group. The Mann-Whitney U test produces a p-value of $0.00 < 0.05$ for the pre-and post-knowledge and attitude tests, indicating a significant difference in mean scores between the

intervention and control groups. Similarly, the Wilcoxon Signed-Rank test showed a p-value of $0.00 < 0.05$ for knowledge and attitudes in the intervention group, indicating a significant difference in the mean scores after the intervention compared to the control group. These findings show that nutritional literacy through pocketbooks and leaflets influences the giving of Vitamin A to children.

Findings align with Czarniecka et al. (2023), showing the impact of health education on parents' knowledge regarding the prevention of Vitamin A (20). Research by Presetyaningsih (2019) shows an increase in knowledge by 34%. Addressing Vitamin A deficiency in children highlights nutrition as an important program for human resource development and emphasizes the role of nutritional literacy (21). Nutritional literacy, which encompasses an individual's ability to access, understand, and utilize nutrition information, is crucial in promoting healthy dietary choices. Food and nutrition literacy plays a significant role in shaping healthy eating behaviors among children (22). Factors influencing nutritional literacy include age, cultural background, education level, and prior knowledge, each significantly impacting one's capacity to apply health-related information in daily life (23). Various programs can increase parental compliance in administering Vitamin A, including health promotion through health education. Health education media includes all means to facilitate the delivery and reception of messages, including print, electronic, visual, and outdoor media. These methods increase knowledge and encourage positive health behaviors. Visual education tools such as leaflets are effective in health promotion efforts (24). The results of other studies also show that after literacy with pocket books is carried out, it has an impact on increasing knowledge (25). Therefore, using pocketbooks and leaflets for education can effectively increase nutritional literacy in mothers while optimizing the practice of administering Vitamin A.

This research aligns with the broader initiative to tackle vitamin A deficiency as part of human resource development, underscoring the role of nutritional literacy in fostering informed health decisions. Nutritional literacy, which encompasses an individual's ability to access,

understand, and utilize nutrition information, is crucial in promoting healthy dietary choices. Improving nutritional literacy plays an important role in encouraging adherence to dietary recommendations, especially in communities with low socioeconomic status such as rural residents, social security recipients, and individuals with lower levels of education. The higher a person's health literacy, the more likely they are to understand and follow a healthy diet (8). The government needs to integrate nutrition literacy improvement programs in human resource development policies, especially in areas with low socioeconomic status. Targeted nutrition education interventions will help people make better health decisions and improve adherence to dietary recommendations, including efforts to address vitamin A deficiency.

CONCLUSION AND RECOMMENDATION

Respondent characteristics show that although there are some differences in age and education level, the two groups have a relatively even distribution regarding employment and children's ages. This ensures that the differences in research results between the intervention and control groups can be attributed more to the treatment provided (pocketbook media and leaflet media) rather than other demographic factors. The analysis shows an influence of nutritional literacy on increasing knowledge before and after carrying out nutritional literacy, both in the intervention group using pocketbook media and the control group using leaflet media. Additionally, nutritional literacy also influenced changes in attitudes before and after implementing nutritional literacy in the two groups.

The research results recommend that parents be encouraged to understand the importance of Vitamin A for toddlers. For other researchers, this research provides insight and information to further develop knowledge in the field of public health, especially regarding the importance of giving Vitamin A capsules to toddlers. These findings can be a reference for similar research in the future. Health institutions can use the results as literature and scientific information for further study and development. The results of this study can also be applied in other regions, provided that the participating

mothers are literate in Indonesian to be able to understand the material presented.

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