Analysis of the Urgency of Vitamin A Consumption on the Growth and Development of Toddlers

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Abstract: Vitamin A is an essential vitamin that plays an important role in the growth and development of toddlers. Vitamin A is the most important nutrient for restoring health and survival. Vitamin A deficiency increases morbidity and mortality, because it is susceptible to infections such as diarrhea and pneumonia. The method used is a literature review method with journals ranging from 2019 to 2024 with appropriate journals. This literature review aims to analyze the urgency of consuming vitamin A for optimal growth and development of toddlers. The results obtained show that consumption of vitamin A is very important for the growth and development of toddlers. Vitamin A plays an important role in maintaining eye health, the immune system, and cognitive function. The conclusion that can be drawn is that vitamin A consumption is very important for optimal growth and development of toddlers.

1 INTRODUCTION

The process of growth and development, which is the outcome of the combination of hereditary and environmental factors, can be used to assess a child's quality. Environmental factors encompass biological, physical, psychological, and social settings; genetic/hereditary factors are those relating to genes inherited from mother and father. Rapid growth and development begins in youth, specifically at age five. The term “Golden Age” is frequently used to describe this time period (Ningsih et al., 2022). Growth and development are essentially different but interrelated events that are difficult to separate: growth and development. Growth is defined as a change in the number, size, dimension, or level of cells, organs, or individuals and can be measured in numbers or grams. Development, on the other hand, is an attempt to add more complex capabilities, structures, and functions to the body in an orderly pattern (Eritiana et al., 2022).

The period of supplementary breastfeeding begins around 6 months of age, when breastmilk alone no longer provides adequate nutrition. Thereafter, the child should be fed a safe and nutritious diet of protein, energy, vitamins and minerals, and should be breastfed continuously until 23 months of age or beyond. Minimal dietary diversity in children during complementary feeding and between 6 and 23 months of age means that only 19% of children are fed a minimally acceptable diet at weaning. Vitamin A is essential for growth and immune function, and vitamin A deficiency makes children vulnerable to infections and death from decreased immune function (Yuniarti et al., 2024).

The high infant and child mortality rate in Indonesia has led to poor public health outcomes. This issue reflects the need for government involvement at the national level to support and maintain oversight of vaccination programs and vitamin A supply in Indonesia. Vitamin A helps reduce mortality and morbidity. Therefore, vitamin A can increase the body's resistance to infections such as measles,

diarrhea, and acute respiratory infections (ARI) (Andanawarih et al., 2020).

For survival and good health, vitamin A is essential. Vitamin A deficiency increases morbidity and mortality rates in children by increasing their susceptibility to potentially lethal illnesses such as pneumonia and diarrhea. Night blindness, a kind of xerophthalmia that can result in corneal damage and blindness, is one of the most serious consequences of vitamin A deficiency. Subclinical vitamin A insufficiency is still a major problem in some areas, impacting about 50 liters. Lowered disease resistance due to this deficit has a detrimental effect on child survival. In addition to preventing blindness, treating a vitamin A deficiency improves productivity, lowers infant mortality, and supports healthy child development (Adriani, 2019).

2 METHODS

Using sources from the Google Scholar database, this study reviews the literature. In the literature process, the keywords used were Vitamin A, Growth and Development and Toddlers. Literature is limited to studies of the last 5 years, starting from 2019 to 2024. 15,800 studies were found through Google Scholar database. The studies were analyzed to obtain studies that fit the criteria of the criteria, namely the type of quantitative research, conducted during the last 5 years, less than equal to 100 people as the sample. 100 people as the sample. According to these criteria, the number of studies obtained was 15 studies, which were conducted by Indonesian researchers. Most of the studies were articles in scientific journals. Our article screening process presented in the following PRISMA diagram.

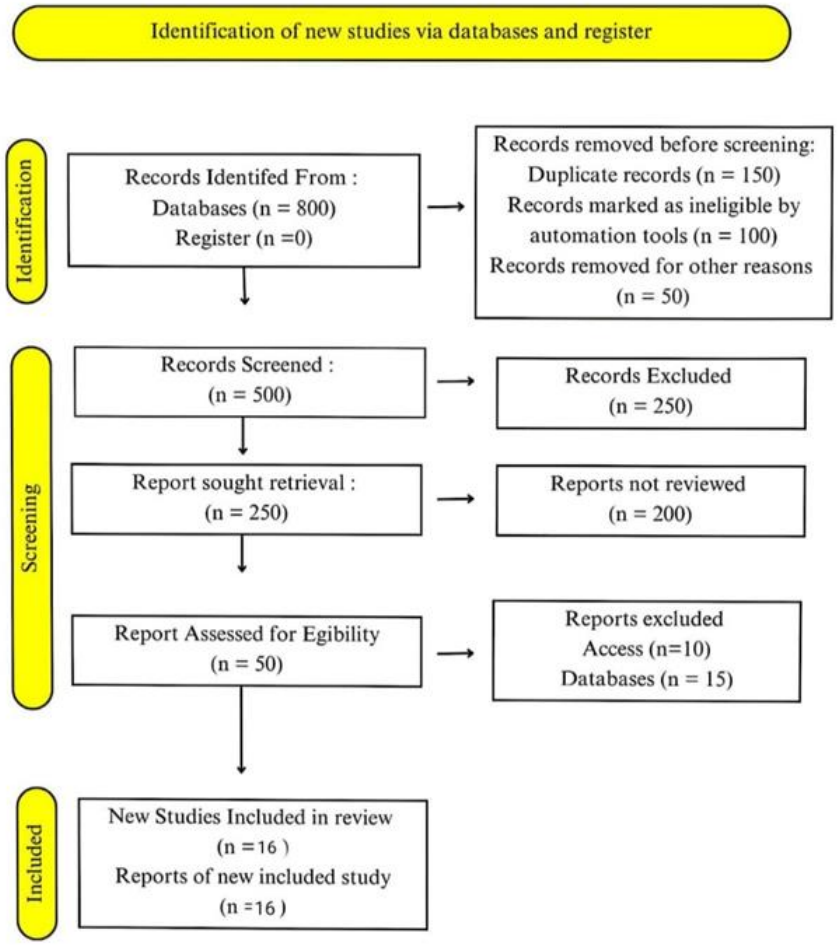

Figure 1: Journal Search Prism

3 RESULTS

Table 1: Journal Analysis Table

No	Research Title	Name/ Year Published Research	Research Methods	Research Results
1	Counseling on 'Growth and Development Monitoring' from Provision of Vitamin A to Toddlers at Posyandu Kenanga Village Mampie Kec. Cileungsi Kabupaten Bogor Year 2021	Nengsih. Yulita, and Imelda Diana Marsilia. (2021)	For this community service activity it is necessary to prepare with the aim of making a work plan based on counseling on monitoring growth and development and giving Vitamin A to toddlers. and the method of implementing the activities provided is in the form of counseling material on monitoring growth and development and giving Vitamin A.	The results of a series of community service activities for mothers who have toddlers are satisfactory, both mastery of the material and how to monitor the growth and development of toddlers who have been given. The understanding of the counseling participants was seen during discussions, questions and answers. It turned out that the participants were able to absorb and understand the material presented. From the results of questions asked in the discussion of participants after being given counseling material, it can be concluded that the counseling went smoothly. For the provision of Vitamin A toddlers who are present are given according to the dose of 52 toddlers, toddlers who do not come will be given directly to each toddler's home by cadres so that the target of giving Vitamin A is still achieved.
2	Socialization of the Benefits of Providing Vitamin A to Children in Wawatu Pantai Village, North Moramo Subdistrict, South Konawe Regency	Asriullah Jabbar, et al (2024)	This research uses the methods used in this activity are material presentation, question and answer between presenters and villagers, filling out pretests and posttests.	This service activity provides an understanding of the benefits of giving vitamin A to children as evidenced by the increase in knowledge after socialization and understanding of the community in Wawatu Pantai Village regarding Vitamin A in children.
3	Monitoring Infant Toddler Growth Through Posyandu Activities & Providing Vitamin A Capsules	Catur Setyorini, Durrotun Nafisah, Fitria Kurniastuti (2023)	This research uses community service activities. Community service was carried out by mothers and infants or toddlers totaling 130 respondents.	Most respondents were toddlers aged 12-59 months, totaling 107 individuals (82.3%), with a majority being male (56.2%) and having normal nutritional status (79.2%). The majority of mothers (96.9%) brought the MCH book to the posyandu. All infants aged 6 months and older, as well as toddlers, received Vitamin A capsules (100%).
4	The Correlation Between the Level of Knowledge of The Mother About The Provision of Vitamin A With Mother's Compliance with The Giving of Vitamin A to Infants Aged 6 - 11 Months At Posyandu Mekar Sari And Bakti Ibu	Puspita Sari (2022)	This study employed a cross-sectional design with a sample of thirty-two moms whose babies were between the ages of six and eleven months. by the use of the whole sample approach with primary data. Fisher Exact Test is used. According to a cross-tabulation study comparing the amount of maternal knowledge and compliance with administering vitamin	Based on 32 samples, the majority of mothers know enough to know up to 15 individuals (47%) and are obedient to up to 17 persons (53%). The bivariate results show a significant correlation ($p \leq 0.05$) between maternal compliance in providing vitamin A to infants aged 6 to 11 months at Posyandu Mekar Sari and Bakti Ibu in the Baamang II Sampit Health Center Working Area in 2022 and her level of knowledge about doing so.

No	Research Title	Name/ Year Published Research	Research Methods	Research Results
	Work Area Baamang Ii Sampit Health Center In 2022		A across 32 samples, most mothers are sufficiently knowledgeable and obedient—up to 16 individuals, or 46.9%.	
5	Factors associated with vitamin A administration among children under five years of age	Sunarti Hanapi, et al (2019)	This research uses a cross sectional study. Sampling data with purposive sampling technique and data collection using a questionnaire, analysis using chi square test.	In this study, vitamin A was administered to 126 (48.1%) and not to 136 (51.9%) toddlers. 5.0% of toddler visits are active, 28.2% of cadres are active, and 63.4% of mothers have knowledge. Bivariate test results indicated that 67.7% of mothers had appropriate knowledge. When given vitamin A, children under five demonstrated knowledge with a chi square test p value of 0.000 and an active cadre role of 82.4% for toddlers to the health center / posyandu 100%. Vitamin A-treated toddlers with a p-value of 0.000 were linked to vitamin A administration in toddlers
6	Factors Associated with Vitamin A Administration in Children Toddlers at the Posyandu Beringin Lestari Village Work Area Puskesmas Tapung Hilir 1 Kampar Regency 2018	Gusman Virgo (2020)	Analytic research design with cross sectional design, measurement of independent variables (maternal knowledge, the role of cadres and the activeness of toddler visits to posyandu) and the dependent variable (vitamin administration). A in toddlers)	The variable associated with the provision of vitamin A in toddlers is the variable mother's knowledge value (p=0.015) and the variable activeness of toddlers in visiting the posyandu value (p=0.000), while the variable that is not associated is the role of cadres value (p=0.203), from these results there is a relationship between knowledge and mothers and the activeness of toddlers in visiting the posyandu, but there is no relationship between the role of cadres in the vitamin A provision factor in toddlers.
7	Efforts to Improve Toddler Health by Providing Vitamin A and Health Counseling About Stunting in Mothers of Toddlers at Pmb Sri Rejeki Dh Jabung Plupuh Sragen	Hutari Puji Astuti, Christiani Bumi Pangesti (2022)	This study used a sample of all mothers who have toddlers in Jabung RT 01 Plupuh Sragen Village, namely 23 mothers of toddlers. as an introduction to emphasize the understanding of stunting and vitamin A in toddlers and the question and answer method. The results obtained from counseling about stunting and giving Vitamin A to toddlers are all mothers who have toddlers there is an increase in knowledge with an average value of knowledge about stunting and vitamin A in toddlers of 90%.	Based on the outcomes of a one-day coaching and counseling program attended by twenty-three moms of toddlers, the community responded well to the initiative. Mothers of toddlers became more knowledgeable about several things related to stunting and vitamin A in toddlers. This can be seen from the results of the question and answer session, where before counseling on stunting and vitamin A in toddlers, mothers of toddlers did not understand about several things about stunting and vitamin A. But after counseling about stunting and vitamin A in toddlers, mothers of toddlers become more knowledgeable about stunting and vitamin A for toddlers with an average value of knowledge about stunting and vitamin A of 90%.
8	The relationship between nutritional status, vitamin A administration, immunization status, exclusive	Fithria Nurul Azizah, et al (2023)	This research is a quantitative study with a cross-sectional study which then the results will be analyzed using the *Chi Square* Test.	The results showed that most infants aged 0-59 months had a normal nutritional status of 87.0%, incomplete vitamin A administration 53.1%, incomplete immunization status 56.7%, not exclusively breastfed 55.9%, and most toddlers 0-59 months suffering from

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	breastfeeding with the incidence of ARI in children under five years of age.			ARI of 57.1%. Analysis of the relationship of these variables obtained a p value of 0.000 (p <0.05) so that statistically there is no significant relationship between nutritional status
9	Vitamin A administration factor	Puspita Adriani (2019)	This type of research is quantitative with a cross sectional approach. The research analysis used chi-square. The research instrument used a questionnaire.	There is a significant correlation between knowledge, education, and work when it comes to providing Vitamin A to toddlers (6-59 months) in the Kandai Health Center Working Area of Kendari City, according to the results of a bivariate analysis of the factors associated with this provision. The findings of the study on the association between knowledge and giving toddlers (6–59 months) vitamin A indicate that moms with higher levels of education will find it easier and more understandable to recognize the benefits of Posyandu activities for their children. Parental education is one of the key determinants in a child's growth and development, according to the results of the association between education and the administration of vitamin A to toddlers (6-59) months old. This is because with good education, Parents have access to all outside knowledge, particularly that which pertains to raising morally upright children and maintaining their health. According to research on the connection between employment and vitamin A provision in toddlers (6–59 months), working mothers find it difficult to make time for visits to the Posyandu. On the other hand, stay-at-home moms have more time for relaxation and can take their kids to Posyandu to acquire Vitamin A.
10	Socialization of the Importance of Vitamin A to Optimize Toddler Growth.	Muhatta, Fajar, Romli Gafur, Iwan Setiawan, Syamsul Ma'arip, Tb. Fiki Fahlaifi Musaffa, Rahmat Hidayat, Iwan Gunawan, Angga Sofyan Lutfi, Eva Muti'ah, Basrowi (2023)	The method used was information counseling on the importance of vitamin A to optimize child growth and development. The data collection process was carried out in two stages, namely pre-test and post-test. The pre-test was conducted to measure the initial ability that the target already had. While the post-test is to determine the extent of understanding of the training material that has been given.	The training activities were carried out in the mushola of the residents of Kp. Ranca Wiru Ds. Kemuning and attended by 50 people. 20 mothers of infants and 25 mothers of toddlers and 5 health cadres. Counseling was conducted for one day and divided into two sessions, the first counseling on the importance of vitamin A and the second session on vitamin A administration for infants and toddlers. It was proven that there were still 23 people who did not understand very well and 15 people who did not understand. After the counseling, the participants' understanding has started to improve. Out of 50 people, there were 20 people who understood very well, 20 understood and 7 people understood quite well. There were only two people who did not understand and there was still one person who did not understand very well. The mother of the toddler who really did not

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				understand was not present in the provision of training materials and returned when the post-test was conducted. Evidently there were still 28 people who were very poorly understood and 12 people who did not understand. After counseling, the participants' understanding has started to improve. Out of 60 people, there were 30 people who really understood, 11 understood and 7 people understood quite well. There was only 1 person who did not understand and there was still 1 person who did not understand very well. The baby's mother who did not understand very well was not present during the training and returned when the post-test was conducted.
11	Socialization of the Benefits of Providing Vitamin A to Toddlers in the Lubuk Begalung Health Center Working Area, Padang City	Fadhilatul Hasnah, Dian Paramitha Asyari, Gusrianti, Nailul Hikmi (2023)	Implemented in the form of counseling and socialization about Vitamin A and the month of Vitamin A administration. Tools and materials to be used in the form of counseling media such as questionnaires, infocus, laptops.	The results of the pretest questionnaire showed that of the 15 mothers of toddlers who attended, 9 had good knowledge about Vitamin A and the month of administration, while 6 more still did not know about the benefits of Vitamin A. Based on the results obtained, it shows that there is a significant relationship at the level between the level of maternal knowledge and the provision of Vitamin A. After the socialization and counseling activities are expected to provide clear information about Vitamin A and its schedule, the Posttest activities are carried out again using the same questionnaire. It was found that there was still 1 mother of toddlers who still did not know about the benefits of Vitamin A but all knew about the schedule of administration.
12	Counseling on Basic Immunization, Vitamin A and Growth and Development in Infants and Toddlers in the Pekalongan City Jenggot Health Center Area	Putri Andanawarih and Miftachul Jannah (2020)	The research used an observation method in the form of community service consisting of education and monitoring. Education uses pre and post-tests with prepared questionnaires.	The results showed an increase of 35% in maternal knowledge about basic immunization in the evaluation results conducted and the measurement of vitamin A showed the results of measuring maternal knowledge about Viamin A had a very good increase of 48%.
13	Association of vitamin A deficiency with early childhood stunting in Uganda: A population based cross-sectional study	Paddy Ssentongo, Djibril M. Ba, Anna E. Ssentongo, Claudio Fronterre, Andrew Whalen, Yanxu Yang, Jessica E. Ericson,	Data are from the most recent Uganda Demographic and Health Survey (UDHS) (2016). Data were collected between June 20, 2015 and December 16, 2016, data collection involved a multistage stratified sampling design.	The prevalence of vitamin A deficiency (VAD) was 8.9% (95% CI: 8.1%-9.6%, n = 424). Stunting affected 27% of the children (95% CI: 26.1%-28.6%, n = 1302), 4% were underweight (95% CI: 3.6%-4.7%, n = 196), and 17% were thin (95% CI: 16.0%-18.2%, n = 813). After accounting for household factors such as wealth index, parents' education and employment status, land ownership for agriculture, and livestock, as well as vitamin A supplementation and community factors like population density,

No	Research Title	Name/ Year Published Research	Research Methods	Research Results
		Vernon M. Chinchilli (2020)		growing season length, and place of residence, children with VAD had 43% higher odds of being stunted compared to those without VAD (adjusted odds ratio, 1.43; 95% CI: 1.08-1.89, p = 0.01). No significant association was found between VAD and being thin or underweight.
14	The level of maternal knowledge about vitamin A administration and maternal compliance in Vitamin A administration.	Febra Ayudiah and Taufiani Rossita (2023)	This study uses a quantitative design using a cross sectional design Analytical Survey	Based on this research on 102 respondents, most mothers have a good level of knowledge as many as 44 respondents. The level of maternal compliance in giving vitamin A there are 54 mothers who are not obedient in giving vitamin A.
15	Clinical vitamin A deficiency among preschool aged children in southwest Ethiopia	Abdil wahid, et al (2024)	In this study, data collection uses a questionnaire, the results of which will be analyzed using SPPS with logistic regression.	The study found that the overall prevalence of clinical vitamin A deficiency (VAD) in the area was 2.2% (ranging from 1.7% to 2.7%). This rate is considered a major public health issue based on the WHO threshold for public health significance in preschool-aged children, which is ≥1.56%.
16	Vitamin A supplementation coverage and its associated factors among children aged 6-59 months in West Azernet Berbere Woreda, South West Ethiopia	Bihon Berihun, et al (2023)	This study was conducted by collecting data using a questionnaire which was then analyzed using bivariate logistic regression and multivariate analysis.	The investigation's findings are: - The likelihood that a child will receive vitamin A supplementation was 2.5 times higher in families with monthly incomes over 2000 ETB. - Three times as many mothers who were informed about vitamin A supplementation were likely to take it. - The likelihood of mothers receiving vitamin A supplements was 67.6% lower when their husbands disapproved of them.

4 DISCUSSIONS

Definition of Vitamin A

Important fat-soluble vitamin A is stored in the liver and needs to be obtained externally because the body is unable to generate it. Children under five may have a weakened immune system and a higher chance of morbidity and death if they suffer from a vitamin A deficiency (VAD). Lack of vitamin A is a primary cause of blindness in children. Toddlers' access to vitamin A can be impacted by a number of variables. A mother's ability to provide vitamin A for her kid can be influenced by her educational background, as more education can facilitate a mother's ability to assimilate information and knowledge more readily.

Vitamin A is one of the most crucial elements for growth. All retinoids, provitamin A, and carotenoids with biological activity that are utilized as retinol are collectively referred to as vitamin A. Because dietary intake is still inadequate and vitamin A levels are still low, the body must obtain its vitamin A requirements from outside sources, making vitamin A an important nutrient. One of the fat-soluble nutrients, vitamin A is stored in the liver and needs to be obtained from outside the body because it cannot be generated by the body.

For toddlers between the ages of 6 and 59 months, vitamin A capsule supplementation serves as a preventative measure against blindness as well as a treatment for vitamin A deficiency (VAC), the primary cause of which is reduced vitamin A stores in the body leading to abnormalities in the eyes that typically affect children between the ages of 6 months

and 4 years. In children with disorders such as protein energy shortage or malnutrition, vitamin A insufficiency can typically be attributed to decreased absorption in the intestine. Beginning at age six months, vitamin A pills are administered twice a year in February and August.

Vitamin A Function in Toddlers

The body cannot create or make vitamin A, which means it must come from outside sources. Vitamin A is an essential ingredient that is stored in the liver and is a fat-soluble nutrient. In addition to being necessary for healthy growth and resistance to illnesses like measles, diarrhea, and other infectious diseases, vitamin A can lower mortality rates.

The function of vitamin A is to increase the immune system that can prevent complications in diseases, help in the process of vision, especially in adaptation from light to dark places, help growth in toddlers such as nail, tooth or hair growth, and help function in organs.

To prevent vitamin A deficiency in toddlers, vitamin A capsules are given in February and August. Vitamin A administration in infants 6-11 months is given once with a dose of 100,000 IU in blue color. while in children under five 12 - 59 months is given twice with a dose of 200,000 IU in red color

The Impact of Vitamin A on The Growth and Development of Toddlers

In addition to breast milk, baby's growth and development is also influenced by their food intake. Complementary feeding is a supplement to breastmilk that your baby needs after consuming exclusive breastmilk. Your baby's diet should be rich in energy, protein, and micronutrients (especially iron, azine, calcium, vitamin A, vitamin C, and folic acid), which can affect the baby's height and weight (Muklis., 2019). Another very serious consequence of vitamin A deficiency (VAD) is night blindness, which includes corneal damage and blindness, which can eventually lead to death. Vitamin A is involved in the formation, production, and growth of red blood cells, lymphoid cells, and antibodies, as well as the integrity of epithelial cells lining the body (Hertati et al., 2023).

Additionally, xerophthalmia, night blindness, corneal deterioration, and blindness are all prevented by vitamin A. One of the most vital nutrients that the body requires, particularly for a child's growth and development, is vitamin A. Since the body is unable to generate vitamin A, it must be received from the outside (essential). accountable for the body's resistance to illness, growth, enhanced energy, and vision (Hertati et al., 2023). Vitamin A contributes to a lower death and morbidity rate. As a result, vitamin A helps strengthen the body's defenses against illnesses like diarrhea, measles, and acute respiratory infections (ARI). Night blindness and other xerophthalmia symptoms, such as corneal damage and blindness, are additional extremely dangerous effects of VAC (Andanawarih & Jannah, 2020).

Vitamin A is important for healthy cell function throughout the baby's body. Vitamin A helps maintain healthy skin, hair and digestive system. Vitamin A deficiency can cause dry and rough skin, hair loss, and diarrhea. Vitamin A helps in the formation of red blood cells. Vitamin A deficiency can lead to anemia in young children which can cause fatigue, pallor, and shortness of breath. Vitamin A plays an important role in the growth and development of body cells and tissues in young children. Vitamin A helps form bones, teeth and other tissues. Vitamin A deficiency can cause growth problems such as stunting and wasting in young children (Andanawarih & Jannah., 2020).

Diseases Arising from Vitamin A Deficiency

Hypovitaminosis A is the condition that results from a vitamin A deficiency. Hypovitaminosis A can result in a number of illnesses, including ocular damage: Visual impairments include poor color vision, poor night vision, and poor eyesight due to vitamin A insufficiency. Skin damage: Dry, itchy, and greasy skin can result from a vitamin A deficiency. Immune system damage: A lack of vitamin A can affect the immune system's performance, increasing the body's susceptibility to diseases and harm to the neurological system Fatigue, headaches, and poor brain function are examples of nervous system illnesses that can be brought on by a vitamin A deficit.

Vitamin A deficiency can also cause impaired vision at twilight (night blindness), as well as damage to eye tissue, namely seroftalmia, which can lead to blindness. Vitamin A deficiency can also lead to keratinization of epithelial tissue and reduced mucus secretion. Night Blindness: Impaired vision at dusk caused by malfunction of various seller mechanisms in which retinoid compounds play a role. Vitamin A deficiency results in impaired vision at dusk (night

blindness). This occurs when vitamin A stores in the liver are depleted.

Blindness can result from Seroftalmia (Xerophthalmia), which is damage to the tissue surrounding the eyes. A vitamin A shortage causes night blindness, or blurred vision at sunset. When the liver's reserves of vitamin A are exhausted, this happens. Increased depletion results in keratinization of the gastrointestinal tract, genitourinary tract, eyes, and lungs' epithelial tissues, and with a decrease in mucus output. Damage to Epithelial Tissue: A lack of vitamin A can result in keratinization of the gastrointestinal system, genitourinary tract, eyes, and lungs. This condition is exacerbated by a decrease in mucus secretion (Muliah et al., 2019).

Prevention of Vitamin A Deficiency

(Rahmad & Wulandari, 2022) In his journal explained that giving vitamin A supplements to toddlers is needed to increase children's immunity from disease. Vitamin A deficiency in the body that lasts a long time can cause health problems that have an impact on increasing the risk of morbidity and mortality of toddlers. Vitamin A or retinol is involved in the formation of the production and growth of red blood cells, lymphocyte cells, antibodies as well as the integrity of the body's coating cells. Vitamin A also prevents night blindness, xerophthalmia, corneal damage and blindness and prevents anemia in postpartum women. Vitamin A deficiency can increase a child's risk of upper respiratory tract infections, measles and diarrhea.

Vitamin A deficiency (VAD) remains a significant global issue, particularly in developing nations, and can affect individuals of all ages, especially during growth periods. Studies from various countries indicate that biannual vitamin A supplementation for children aged 6-59 months can prevent VAD and night blindness, as well as enhance immunity. Children with VAD are more prone to infections such as upper respiratory tract infections, measles, and diarrhea.

In particular, children who are deficient in vitamin A should be the target of early intervention to increase their vitamin A status. Vitamin A capsules for infants 6–11 months old are blue and contain 100,000 IU of retinol (palmitate/acetate); vitamin A capsules for children under five years old, 12-59 months old, and mothers who have recently given birth are red and contain 200,000 IU of retinol (palmitate/acetate). According to the Vitamin A Supplementation Management Guidelines, infants and children under five are given vitamin A capsules at the same time each year in February and August. Infants from 6 to 11 months receive vitamin A injections once, and children under the age of five receive them twice between the ages of 12 and 59 months.

Then (Putri & Anggita, 2022) In his journal explains that vitamin A deficiency or deficiency can cause several disorders to the health of the body, including Hemeralopia or chicken blindness, night blindness, Frinoderma, the formation of the epithelium of the skin of the hands and feet is disturbed, so that the skin of the hands and / or feet looks scaly, bleeding in the intestinal membranes, kidneys and lungs, damage to the cornea by causing bitot spots, seroftalmi (cornea dries up) and eventually kerotit, seroftalmi (cornea of the eye is completely damaged), stopping the growth process, disruption of growth in infants.

Mothers who deprive their children of vitamin A are contributing factors to vitamin A insufficiency. This is due to a lack of understanding of the significance of vitamin A administration, which may negatively affect toddlers' health. Higher levels of knowledge also translate into greater awareness of the value of vitamin A supplementation. By offering health education, attempts can be made to increase mothers' understanding of the administration of vitamin A. The purpose of health education is to help people change their habits, attitudes, and knowledge in order to attain better health.

Foods to Help Toddler Growth and Development (Containing Vit A)

Vitamin A is an essential nutrient required for various aspects of human health. Based on the nutrients it contains, vitamin A is divided into 2 types, namely retinoids and carotenoids, which are obtained from various food sources. Vitamin A in the form of retinoids can be obtained from animal foods while in the form of carotenoids can be obtained from vegetables and fruits. Plant-based carotenoids, such as vitamin A, can be converted by the body. Provitamin A is the collective term for these carotenoids, which include beta- and alpha-carotene.

Animal food sources

1. Animal livers, such as beef, chicken and fish liver, are one of the richest sources of vitamin A. They contain retinol, a form of vitamin A that is readily utilized by the body. These foods contain retinol, a form of vitamin A that is readily utilized by the body.

2. eggs, especially in the yolk
3. Animal meat, especially red meat, contains vitamin A.
4. dairy products, such as milk, cheese, and yogurt contain vitamin A in the form of reticol

The best source of vitamin A for children under five is food derived from animal ingredients because it serves to optimize their growth and development. However, vegetables and fruits are still needed for antioxidant functions. Sources of vitamin A from animal foods include meat, beef or chicken liver, fish, milk, eggs, cheese, shark liver oil, cod liver oil, and colostrum in breast milk. Many fruits and vegetables are also rich in provitamin A and can help fulfill the body's vitamin A needs.

Among the plant foods that contain vitamin A include:

1. Sweet potato, Every 200 grams contains 1920 µg RAE
2. Pumpkin, very 205 grams contains 1140 µg RAE
3. Mango, Every 165 grams contains 89 µg RAE
4. Cantaloupe, Every 160 grams contains 270 µg RAE
5. Grapefruit, Every 154 grams contains 89 µg RAE
6. Watermelon, Every 155 grams contains 43 µg RAE
7. Papaya, Every 165 grams contains 78 µg RAE
8. Apricots, Every 70 grams contains 67 µg RAE
9. Guava, Every 110 grams contains 34 µg RAE
10. Kale, Every 118 grams contains 172 µg RAE
11. Green mustard, Every 190 grams contains 722 µg RAE
12. Radish, Every 144 grams contains 549 µg RAE
13. Carrots, Every 155 grams contains 1280 µg RAE
14. Red bell pepper, Every 164 grams contains 257 µg RAE
15. Spinach, Every 180 grams contains 943 µg RAE

5 CONCLUSIONS

As a fat-soluble vitamin that is stored in the liver and cannot be generated by the body, vitamin A is a necessary nutrient that must come from outside sources. Vitamin A has several functions, including boosting immunity, which can assist avoid health difficulties, aiding in vision, particularly in adjusting from light to dark, supporting toddler growth, including the development of teeth, hair, and nails, and supporting organ function. Vitamin A deficiency (VAD) causes night blindness, which can culminate in blindness and corneal damage, and can ultimately be fatal. The disease arising from vitamin A deficiency is hypovitaminosis A. Vitamin A capsule supplementation is given twice a year in February and August, from 6 months to 59 months of age. Vitamin A supplementation for infants 6-11 months is given once with a dose of 100,000 IU in blue, while children under five 12-59 months are given twice with a dose of 200,000 IU in red. MP-ASI is a breast milk supplement that babies need after consuming exclusive breast milk. Based on the nutrients it contains, vitamin A is divided into 2 types, namely retinoids and carotenoids obtained from various food sources. Vitamin A in the form of retinoids can be obtained from animal foods while in the form of carotenoids can be obtained from vegetables and fruits.

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