

THE INFLUENCE OF KNOWLEDGE AND ATTITUDES OF MIDWIVES TOWARDS PROVIDING VITAMIN K IN THE WORKING AREA OF THE PEBAYURAN HEALTH CENTER, PEBAYURAN DISTRICT

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Abstract

Background: Newborn babies are very vulnerable to vitamin K deficiency. When in the womb, babies do not get enough vitamin K, because it is difficult for vitamin K from the mother to cross the placenta. When a baby experiences bleeding due to a lack of vitamin K or Bleeding due to Vitamin K Deficiency (PDVK), the baby's body will not stop bleeding because the body is unable to clot the blood due to a lack of vitamin K. This bleeding can occur in various parts of the body, internally or externally. **outside.** **Research Objective:** To determine the influence of midwives' knowledge and attitudes on the provision of Vitamin K in the Pebayuran Community Health Center working area, Pebayuran District. **Research Method:** This research is descriptive analytical with a cross sectional approach. The population in this study were all 37 registered midwives in the Pebayuran Community Health Center Working Area. To determine the sample using total sampling. **Research Results:** The results show that the significance level is <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwife knowledge and midwife attitudes towards giving vitamin K in the Pebayuran Community Health Center working area, Pebayuran District. With an OR value of 16.4, which means that a midwife who has good knowledge has a 16.4-fold potential for providing Vitamin K and an OR value of 23.9, which means a midwife who has a positive attitude has a 23.9-fold potential for providing Vitamin K. **Conclusions and Suggestions:** There is an influence of the knowledge and attitudes of midwives on the provision of Vitamin K in the Pebayuran Community Health Center Work Area, Pebayuran District. For the community health center, it can be used as information and evaluation regarding the provision of Vitamin K to newborn babies and for the head of the community health center it is recommended to hold outreach activities regarding the importance of giving Vitamin K to newborn babies and it is mandatory for all health workers to participate so that they understand the dangers of vitamin K deficiency in particular. in newborn babies.

Keywords: Attitude, Knowledge, Vitamin K

Introduction

Indonesia as a developing country has an infant mortality rate (IMR) of 35 per 1000 live births in 2003 which is projected to be 18 per 1000 live births in 2025. One effort to reduce the IMR is to prevent brain hemorrhage in newborn babies. caused by vitamin K deficiency (WHO, 2020).

Based on the recording and reporting of Community Health Centers throughout Bekasi City, the (reported) infant mortality rate in Bekasi City in 2020 decreased, after three years tending to increase. IMR (reported) in 2020 was 1.02 per 1,000 live births. "IMR in 2017 was 1.10 per 1,000 live births,

increased to 1.16 per 1,000 live births in 2018, and increased again in 2019 to 1.17 per 1,000 live births (Dinkes, 2021).

Based on the recording and reporting of the Community Health Center in Bekasi City, it is known that there has been a decrease in the number of infant deaths in 2020. The number of infant deaths in Bekasi City in 2020 was 47 after previously appearing to increase in the last three years. The number of infant deaths in 2017 was 52 babies, increased to 55 babies in 2018, then increased again in 2019 to 58 babies. "93.6 percent of infant deaths occurred during the neonatal period (newborn babies up to 28 days of age) or as many as 44 babies died during the neonatal period out of the total 47 infant deaths in 2020 (Dinkes, 2021).

The incidence of bleeding due to vitamin K deficiency in newborn babies is reported to be quite high, ranging from 0.25-0.5%. To prevent this bleeding, all normal and term newborn babies need to be given oral vitamin K 1 mg/day for 3 days, while high risk babies are given parenteral vitamin K at a dose of 0.5-1 mg 1.M. "If a baby is born in a birthing place where there may be more than one delivery, then an effective identification device must be given to each newborn and remain in place until the baby is sent home (Prawirohardjo, 2018).

Newborn babies are very susceptible to vitamin K deficiency. When in the womb, babies do not get enough vitamin K, because vitamin K from the mother is difficult to cross the placenta. In addition, newborn babies do not have a collection of good bacteria in their digestive system, so they cannot produce vitamin K on their own. In addition, the vitamin K content in breast milk is not large enough, so babies who are given breast milk can experience vitamin K deficiency. Therefore, newborn babies are susceptible to bleeding due to vitamin K deficiency, which is often referred to as Vitamin K Deficiency Bleeding (VKDB) or Bleeding due to Vitamin K Deficiency (PDVK) (JNPK, 2016).

Hanifa R reported a case of intracranial hemorrhage at PDVK at RSUP Dr. M. Djamil Padang varies every year, in 2010 there were 6 cases, in 2011 it decreased to 3 cases, in 2012 it increased to 7 cases, and in 2013 it doubled from the previous year to 16 cases (Hanifa, 2017).

Research at RSUP Dr. Mohammad Hoesin Palembang from 2009 to 2014 reported that of 136 babies who experienced intracranial hemorrhage, 51 of them did not receive a vitamin K injection at birth (Sugono, 2015).

Hanifa R et al from 2010 to 2013 at RSUP Dr. M. Djamil Padang reported that of 32 babies who experienced intracranial bleeding due to vitamin K deficiency, 18 babies did not receive a vitamin K injection at birth and 10 babies did not clearly receive a vitamin K injection at birth. "Most of these babies (24 babies) were delivered by midwives and 1 baby by a shaman (Hanifa, 2017).

In research conducted by Casnuri in 2022 regarding the relationship between the characteristics of pregnant women and the level of knowledge of pregnant women regarding giving vitamin K to newborn babies. The type of research used is descriptive with a cross sectional design. The sample in this study was 65 midwives and nurses at the East Mesuji District Health Center. In this study, it was found that the frequency of respondents' sufficient level of knowledge was 47 people with a percentage of 72.3%. The conclusion of this research is that 16% of midwives at the East Mesuji District Health Center have good knowledge, 38% have sufficient knowledge and 8% have poor knowledge. "Nurses at the East Mesuji District Health Center have 26.7% good knowledge, 60% enough and 13.3% less.

In research conducted by Sri in 2020 regarding the description of the knowledge of midwives and nurses about VKDB at the Prabumulih Community Health Center, South Sumatra. The type of research used in this research is descriptive with a cross sectional design. The samples used in this study were nurses and midwives who worked at the Prabumulih Community Health Center, South Sumatra who met the criteria for this study. In this study, it was found that the frequency of respondents' sufficient level of knowledge was 31 people with a percentage of 46.3%. The conclusion of this research is that midwives at the Prabumulih Community Health Center, South Sumatra have a

sufficient level of knowledge about intracranial bleeding due to vitamin K deficiency. Nurses at the Prabumulih Community Health Center, South Sumatra have an adequate level of knowledge about intracranial bleeding due to vitamin K deficiency.

In research conducted by Debora in 2011 regarding the relationship between midwives' knowledge of giving vitamin K to newborns and the attitude of midwives in preventing vitamin K deficiency in newborns in Ii Keriahen Tani Hamlet, Sembahe Baru Village, Pancur Batu District, 2011. Population and sample In this study, there were all midwives who worked in private/government health service units in Dusun II Keriahen Tani, Sembahe Baru Village, Pancur Batu District, totaling 20 people. Data analysis with chi-square. The results of the study showed that there was a relationship between midwives' knowledge of administering vitamin K1 in BBL and midwives' attitudes in preventing vitamin K deficiency in BBL with $p = 0.000$ ($p > 0.05$). "It is recommended that health workers in Dusun II Keriahen Tani, Sembahe Baru Village improve standard Midwifery services, especially for newborn babies.

Based on a preliminary study conducted by researchers in the Pebayuran Community Health Center Work Area, Pebayuran District regarding the knowledge and attitudes of midwives towards administering vitamin K to newborns, the results showed that of the 5 midwives interviewed, 4 of them who had knowledge and positive attitudes regarding administering vitamin K implemented this. and 1 midwife who lacked knowledge about the dangers of newborn babies not being given vitamin K tended not to do this.

Based on this background, the researcher wants to research further regarding "The Influence of Midwives' Knowledge and Attitudes on Providing Vitamin K in the Pebayuran Community Health Center Work Area, Pebayuran District".

Research Methods

This research is an analytical observational research that describes the research variables and analyzes them in relation to other variables. The research design used was cross-sectional. The population in this study were all 37 registered midwives in the Pebayuran Community Health Center Working Area. The sampling technique uses total sampling technique. The instrument used in this research was a questionnaire which contained midwives knowledge of vitamin K, midwives attitudes towards administering vitamin K and implementation of vitamin K administration. In this study, bivariate analysis was carried out to see the influence of midwives' knowledge and attitudes towards giving vitamin K in the context of preventing brain hemorrhage in newborn babies in the Pebayuran Community Health Center working area. The statistical test used in this research is the chi-square test. In making decisions, the chi-square test can be guided by significant values or p-values with a critical limit (α) of 0.05.

Research Result

Table 1. Frequency Distribution of Midwives' Knowledge Regarding Vitamin K

	Frekuensi	%
Baik	24	64.9%
Cukup	11	29.7%
Kurang	2	5.4%
Jumlah	37	100 %

Based on table 1, Regarding the Frequency Distribution of Midwives' Knowledge Regarding Vitamin K, it can be seen that of the 37 respondents studied, the majority of respondents had

knowledge about Vitamin K in the Good category, namely 24 people (64.9%). There were 11 respondents in the sufficient knowledge category (29.7%) and 2 respondents in the insufficient knowledge category (5.4%).

Table 2. Frequency Distribution of Midwives' Attitudes Regarding Vitamin K

	Frekuensi	%
Positif	31	83.8%
Negatif	6	16.2%
Jumlah	37	100 %

Based on table 2, Regarding the Frequency Distribution of Midwives' Attitudes Regarding Vitamin K, it can be seen that of the 37 respondents studied, the majority of respondents had a positive attitude towards giving Vitamin K as many as 31 people (83.8%) and respondents with a negative attitude category were 6 people (16.2%).

Table 3 Midwives' Knowledge of Vitamin K Administration

Pengetahuan	Pemberian Vitamin K				Jumlah		p-value	OR
	Ya		Tidak					
	n	%	n	%	n	%		
Baik	24	64.8%	0	0%	24	64.8%	0.001	16.4
Cukup	8	21.6%	3	8.1%	11	29.7%		
Kurang	0	0%	2	5.5%	2	5.5%		
Jumlah					37	100%		

Based on table 3, It can be seen that the respondents who had good knowledge and administered vitamin K were 24 people (64.8%), the respondents with sufficient knowledge who administered vitamin K were 8 people (21.6%), the respondents with sufficient knowledge who did not administer vitamin K. as many as 3 people (8.1%) and respondents with less knowledge who did not administer vitamin K were 2 people (5.5%). The results show that the significance level is <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwife knowledge on the provision of Vitamin K in the Pebayuran Community Health Center working area, Pebayuran District. With an OR value of 16.4, which means that a midwife who has good knowledge has the potential to provide Vitamin K 16.4 times more.

Table 4 Midwives' Attitudes Towards Vitamin K Administration

Sikap	Pemberian Vitamin K				Jumlah		p-value	OR
	Ya		Tidak					
	n	%	n	%	n	%		
Positif	31	83.8%	0	0%	31	83.8%	0.001	23.9
Negatif	1	3.7%	5	12.5%	6	16.2%		
Jumlah					37	100%		

Based on table 4, it can be seen that the respondents who had a positive attitude and administered vitamin K were 31 people (83.8%), the respondents with a negative attitude who administered vitamin K were 1 person (3.7%) and the respondents with a negative attitude who did not administer vitamin K. as many as 5 people (12.5%). The results obtained showed a significance level of <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwives' attitudes towards giving vitamin K in the Pebayuran Community Health Center working area, Pebayuran District. With an OR value of 23.9, which means that midwives who have a positive attitude have a 23.9 times greater potential for providing Vitamin K.

Discussion

Univariate Analysis

Based on the results of research and data analysis carried out at the Pebayuran Community Health Center, Bekasi Regency. in December to all 37 registered midwives in the Pebayuran Community Health Center Working Area. The following results were obtained:

Based on the research results, it can be seen that of the 37 respondents studied, the majority of respondents had knowledge about Vitamin K in the Good category, namely 24 people (64.9%). There were 11 respondents in the sufficient knowledge category (29.7%) and 2 respondents in the insufficient knowledge category (5.4%).

Based on the research results, it can be seen that of the 37 respondents studied, the majority of respondents had a positive attitude towards giving Vitamin K, 31 people (83.8%) and 6 respondents with a negative attitude category (16.2%).

Bivariate Analysis

Bivariate analysis was carried out to determine the relationship between the dependent variable and the independent variable which was carried out using the chi square test to analyze the research results from the two data whether there was an influence of midwives' knowledge and attitudes towards giving vitamin K in the Pebayuran Community Health Center working area, Pebayuran District.

Based on the research results, it is known that respondents who had good knowledge and administered vitamin K were 24 people (64.8%), respondents with sufficient knowledge who administered vitamin K were 8 people (21.6%), respondents with sufficient knowledge who did not 3 people (8.1%) gave vitamin K and 2 respondents with less knowledge did not give vitamin K (5.5%). The results show that the significance level is <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwife knowledge on the provision of Vitamin K in the Pebayuran Community Health Center working area, Pebayuran District. "With an OR value of 16.4, it means that a midwife who has good knowledge has the potential to provide Vitamin K 16.4 times more.

Based on the research results, it can be seen that there were 31 respondents who had a positive attitude and administered vitamin K (83.8%), 1 respondent with a negative attitude who administered vitamin K (3.7%) and respondents with a negative attitude who did not 5 people (12.5%) administered vitamin K. The results obtained showed a significance level of <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwives' attitudes towards giving vitamin K in the Pebayuran Community Health Center working area, Pebayuran District. With an OR value of 23.9, which means that midwives who have a positive attitude have a 23.9 times greater potential for providing Vitamin K.

The Influence of Midwives' Knowledge on Vitamin K Administration

According to Notoatmodjo, knowledge is the result of knowing and this occurs after people sense a particular object. Sensing occurs through the five senses, sight, hearing, smell, taste and touch. Most of the knowledge is a very integral part of a person's actions (over behavior). Because in research it turns out that behavior that is based on knowledge will be more lasting than behavior that is not based on knowledge (Notoadmodjo, 2019).

Knowledge regarding the scope of health is one type of knowledge that can be obtained through education. Knowledge of nutrition and health will influence food consumption patterns. "The more knowledge about nutrition and health, the more diverse the types of food consumed so that it can meet nutritional adequacy and maintain individual health.

According to Swarjana, factors that can influence a person's knowledge are divided into three: First, internal factors, namely factors whose source comes from within the individual (interest, talent, cognitive ability or intelligence, physical condition, etc.). Second, external factors are factors that originate from outside the individual (family or close people, society, facilities, facilities and so on). Third, approach factors in learning such as strategies, techniques or methods used in the learning process.

In line with research conducted by Kasmawati entitled *The Relationship between Knowledge and Drug Provision on Giving Vitamin K to Newborns in the Working Area of the Isak Health Center, Linge District, Central Aceh Regency in 2012* with the population of all midwives in the Isak Public Health Center working area, Linge District, Central Aceh Regency, total population namely 30 midwives and a total of 30 midwives taken as a sample, data collected using a questionnaire showed that there was a relationship between knowledge and the provision of bats and the provision of Vitamin K in the working area of the Isak Health Center, Linge District, Central Aceh Regency in 2012.

Based on the research results, it can be seen that the respondents who had good knowledge and administered vitamin K were 24 people (64.8%), the respondents with sufficient knowledge who administered vitamin K were 8 people (21.6%), the respondents with sufficient knowledge who did not administer vitamin K. 3 people (8.1%) gave vitamin K and 2 respondents with less knowledge did not give vitamin K (5.5%). The results obtained have a significance level of <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwife knowledge on the provision of vitamin K in the Pebayuran Community Health Center working area, Pebayuran District.

It can be concluded that if health workers have good knowledge in the sense of knowing and mastering the dangers of not giving vitamin K to newborns, they will tend to give vitamin K to newborn babies. The better a person's knowledge, the more likely that person will take precautions so that something undesirable does not happen as a preventive measure.

The Influence of Midwives' Attitude on Vitamin K Administration

Attitude is a reaction or response of a person who is still closed to a stimulus or object. In other words, it can be said that attitude is a person's response or perception of what they know. So attitudes can be directly seen in real terms, but can only be interpreted as closed behavior. An attitude that is not yet an action or activity, but is a predisposition. (Notoadmodjo, 2018)

Human attitudes are not formed from the moment humans are born. Human attitudes are formed through social processes that occur during their lives, where individuals gain information and experience. This process can take place within the family, school or community. When a social process occurs, a reciprocal relationship occurs between individuals and their surroundings.

Attitude is a reaction or response in the form of an assessment that arises from an individual towards an object. Attitude can also be said to be a manifestation of awareness of the environment. The process that initiates the formation of attitudes is that the presence of objects around the individual provides a stimulus which then hits the individual's sense organs, the information captured about the object is then processed in the brain and gives rise to a reaction. The judgments that emerge, positive or negative are influenced by previous information, or the individual's personal experience.

In line with research conducted by Debora with the title *The Relationship between Midwives' Knowledge of Giving Vitamin K to Newborns and Midwives' Attitudes in Preventing Vitamin K Deficiency in Newborns in Ii Keriahen Tani Hamlet, Sembahé Baru Village, Pancur Batu District in 2011* with the entire population and sample There are 20 midwives who work in private/government health service units in Dusun II Keriahen Tani, Sembahé Baru Village, Pancur Batu District. The results of the study showed that there was a relationship between midwives' knowledge of

administering vitamin K1 in BBL and midwives' attitudes in preventing vitamin K deficiency in BBL with $p= 0.000$ ($p> 0.05$).

Based on the research results, it can be seen that there were 31 respondents who had a positive attitude and administered vitamin K (83.8%), 1 respondent with a negative attitude who administered vitamin K (3.7%) and respondents with a negative attitude who did not administer vitamin K. giving vitamin K to 5 people (12.5%). The results obtained showed a significance level of <0.001 , which means it is lower than 0.05, so the hypothesis is accepted, namely that there is an influence of midwives' attitudes towards giving vitamin K in the Pebayuran Community Health Center working area, Pebayuran District.

Conclusion

Based on the research results, the following conclusions are drawn:

1. There is an influence of midwives' knowledge on the provision of Vitamin K in the Pebayuran Community Health Center working area, Pebayuran District.
2. There is an influence of midwives' attitudes towards giving vitamin K in the work area of the Pebayuran Community Health Center, Pebayuran District.

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