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Roles of Midwives and Indonesian Midwives Association in Reducing Risk Factors for Stunting in Indonesia

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Abstract

BACKGROUND: Stunting is caused by multidimensional factors and the most decisive intervention should be carried out in the first 1000 days of life. Poor parenting practices, lack of knowledge about health and nutrition before and during pregnancy are some of the contributing factors, and 60% of children aged 0–6 months do not receive exclusive breastfeeding.

AIM: The aim of the study is to assess the role of midwives and the Indonesian Midwives Association Professional Organization in reducing the risk of stunting in Indonesia.

METHOD: This type of descriptive research uses an exploratory study approach by assessing the role of midwives and the professional organization of the Indonesian Midwives Association in reducing the risk of stunting in Central Sulawesi. The data of 288 midwives were collected using google Forms from 22 July 2020 to 22 August 2020. Data were analyzed with Chi-Square and SPSS.

RESULT: In general, midwives have provided maternal and child health books to pregnant women, recorded complete maternal and child health records, conducted antenatal care for pregnant women, provided nutritional food counseling for pregnant women, gave Fe 90 tablets to pregnant women, provided calcium tablets to pregnant women, conducting classes for pregnant women, delaying umbilical cord-cutting (>30 min), providing Vitamin A to postpartum mothers, conducting exclusive breastfeeding counseling, providing family planning services, providing IYCF counseling. However, the activities of implementing a special stunting prevention program, implementing postnatal care, and initiating early breastfeeding still need improvement.

CONCLUSION: The role of midwives in efforts to prevent stunting in Indonesia with midwives have provided maternal and child health books to pregnant women. Delaying umbilical cord cutting to 30 min, giving vitamin A to postpartum mothers, breastfeeding counseling, providing family planning services, and providing IYCF counseling. The role of Midwives in reducing risk factors for stunting in Indonesia is important in implementing postnatal care

Introduction

Stunting is caused by multi-dimensional factors and the most decisive intervention should be carried out in the first 1000 days of life. Poor parenting practices, lack of knowledge about health and nutrition before and during pregnancy are among the contributing factors. In addition, sixty percent of children aged 0–6 months do not receive exclusive breastfeeding, two out of three children aged 0–24 months do not receive complementary foods, and the availability of health services including antenatal care and postnatal care are limited. Two out of three pregnant women have not taken adequate iron supplements and lack of access to nutritious food. One of three pregnant women with anemia is a factor causing stunting in Indonesia [1].

The Basic Health Research by the Ministry of Health of the Republic of Indonesia reported that the national prevalence of child stunting in 2013 was 37.2% and decreased in 2018 to 30.2% [2], [3]. Despite the decline, the problem of stunting still needs to be controlled [4]. Maternal and child health services carried out by midwives play an important role in the prevalence of stunting. The results showed that maternal height <150 cm, birth spacing <3 years and the absence of antenatal care were risk factors for stunting [5]. Research in Ethiopia shows risk factors for stunting include maternal age>30 years, mothers without formal education, mothers who work every day, mothers who do not perform postnatal care, and mothers who are sick during their pregnancy [6]. Research in Bhutan shows the risk factors for stunting in children 6–23 months are; antenatal care factor is less than ≤3 times, do not perform antenatal care on doctors, nurses and midwives, and mothers who are <18 years old [7].

In line with that, prevention efforts can be carried out by streamlining existing health programs such as antenatal care, classes for pregnant women, iron and calcium supplementation, and supplementary feeding for pregnant women [8]. Specifically, a study also recommended long breastfeeding through

breastfeeding behavior enhancement programs [9]. In 2018, the Government allocated national priority projects to reduce stunting, one of which is to improve maternal and reproductive health services [1]. Stunting prevention activities are also determined by the role of midwives engaged in antenatal care, postnatal care, iron tablets, calcium for pregnant women, classes for pregnant women, and the provision of additional food for pregnant women.

The purpose of the current study is to assess the role of Midwives and the Indonesian Midwives Association Professional Organization in reducing the risk of stunting in Indonesia.

Methods

This type of descriptive research uses an exploratory study approach. Data of 288 midwives were collected using google form from 22 July 2020 to 22 August 2020 with URL: https://forms.gle/MMd5ijjESSZkBvj16.

The research sample was midwives from all over Indonesia and who successfully filled out the questionnaire a total of 288 people. The inclusion criteria for this study were a midwives, active as a member of the Indonesian Midwives Association Professional Organization, worked for 2 years, had Registration Certificate of midwives, had attended a socialization about preventing stunting. The exclusion criteria were working for <2 years, not having Registration Certificate of midwives, and not working in a health facility.

The instrument for data collection used was a research questionnaire using Google Form which was distributed through the WhatsApp group of Indonesian midwives. The variables include; the role of the Indonesian Midwives Association and the prevalence of children under two in Indonesia; socializing the program for the first 1000 days of life; participating in scientific activities related to stunting; providing/assisting antenatal care training related to stunting. Roles of midwives and prevalence of stunting among children under two in Indonesia include: Provide maternal and child health books to pregnant women; complete maternal and child health books; carry out antenatal care for pregnant women; provide nutritional advice to pregnant women; Give Fe tablets 90 seeds to pregnant women; provide calcium tablets to pregnant women, preparation of classes for pregnant women, implementation of a special prevention program, implementation of postnatal care, delay in umbilical cord-cutting (>30 min), early initiation of breast-feeding, provision of Vitamin A to postpartum mothers, exclusive breastfeeding counseling, provision of family planning services, and provision of complementary breastfeeding counseling.

Data analysis is descriptive analysis on respondent characteristics and bivariate analysis to test the Role of Indonesian Midwives Association and prevalence of stunting in Children Under Two in Indonesia using the Chi-Square Test with a significant level of $p < 0.05$.

Results

In general, respondents aged 20–35 years (86.5%). They work as a midwife for <5 years (58.7%), have a 3-year midwifery diploma (75.3%), work in a hospital (40.3%), and not as an administrator of the Indonesian midwifery association (61.8%) (Table 1).

Table 1: Respondents characteristics

Variable	*n* (288)	%
Age	249	86.5
20–35 years	37	12.8
36–50 years	2	0.7
>50 years		
Length of work As Midwifery		
<5 years	169	58.7
5–10 years	63	21.9
>10 years	56	19.4
Education		
Diploma III	217	75.3
Diploma IV/Graduate	64	22.2
Post Graduate	7	2.4
Work place		
Public Health Office	11	3.8
Educational Institution	17	5.9
Non-governmental organization	33	11.5
Public health center	111	38.5
Hospital	116	40.3
Management of the Indonesian Midwives Association		
Yes	110	38.2
No	178	61.8

Table 2 shows that there is no significant relationship in the variable socializing the program for the first 1000 days of life, participate in scientific activities related to stunting, Provide/Attend Antenatal care training related to stunting against the prevalence of stunting in children under two with a $p > 0.05$. Then, table 3 shows that implement postnatal care as a duty of

Table 2: Role of Indonesian midwives association and prevalence of stunting in children under two in Indonesia

Variable	Prevalence of Stunting in Children Under Two				*p*-value
	30–40%		<29.9%		
	n	(%)	*n*	(%)	
Socializing the Program for the first 1000 days of life					
Never	43	46.2	50	53.8	
Once a year	15	62.5	9	37.5	0.215
Once per semester	19	65.5	10	34.5	
Once a month	77	54.2	65	45.8	
Participate in scientific activities related to stunting					
Never	53	50.0	53	50.0	
Once a year	21	65.6	11	34.4	0.346
Once per semester	20	60.6	13	39.4	
Once a month	60	51.3	57	48.7	
Provide/Attend Antenatal care training related to stunting	64	53.3	56	46.7	
Never	18	69.2	8	30.8	0.158
Once a year	16	64.0	9	36.0	
Once per semester	56	47.9	61	52.1	
Once a month					

Table 3: Role of midwives and prevalence of stunting children under two in Indonesia

Variable	Prevalence of stunting children under Two				p-value
	30–40%		<29.9%		
	n	(%)	n	(%)	
Provide maternal and child health books to pregnant women					
Never	14	60.9	9	39.1	0.349
Rarely	18	43.9	23	56.1	
Frequency	122	54.5	102	45.5	
Complete maternal and child health books					
Never	5	31.3	11	68.8	0.076
Rarely	16	44.4	20	55.6	
Frequency	133	56.4	103	43.6	
Carrying out Antenatal Care for Pregnant Women					
Never	4	40.0	6	60.0	0.663
Rarely	15	51.7	14	48.3	
Frequency	135	54.2	114	45.8	
Provide nutritional food counseling for pregnant women					
Never	3	42.9	4	57.1	0.849
Rarely	16	53.3	14	46.7	
Frequency	135	53.8	116	46.2	
Give Fe tablets 90 seeds to pregnant women					
Never	6	42.9	8	57.1	0.409
Rarely	17	45.9	20	54.1	
Frequency	131	55.3	106	44.7	
Give calcium tablets to pregnant women					
Never	5	41.7	7	58.3	0.478
Rarely	18	47.4	20	52.6	
Frequency	131	55.0	107	45.0	
Carrying out classes for pregnant women					
Never	6	46.2	7	53.8	0.759
Rarely	19	50.0	19	50.0	
Frequency	129	54.4	108	45.6	
Implement a special stunting prevention program					
Never	23	65.7	12	34.4	0.252
Rarely	24	48.0	26	52.0	
Frequency	107	52.7	96	47.3	
Implement Postnatal Care					
Never	21	63.6	12	36.4	0.037*
Rarely	29	40.8	42	59.2	
Frequency	104	56.5	80	43.5	
Delay cutting the umbilical cord (> 30 min)					
Never	6	60.0	4	40.0	0.903
Rarely	25	54.3	21	45.7	
Frequency	123	53.0	109	47.0	
Perform early initiation of breastfeeding					
Never	50	64.9	27	35.1	0.060
Rarely	29	50.9	28	49.1	
Frequency	75	48.7	79	51.3	
Provide Vitamin A to postpartum mothers					
Never	5	55.6	4	44.4	0.739
Rarely	18	60.0	12	40.0	
Frequency	131	52.6	118	47.4	
Conduct exclusive breastfeeding counselling					
Never	6	54.5	5	45.5	0.771
Rarely	19	59.4	13	40.6	
Frequency	129	52.7	116	47.3	
Providing family planning services					
Never	3	50.0	3	50.0	0.388
Rarely	19	65.5	10	34.5	
Frequency	132	52.2	121	47.8	
Providing complementary feeding counselling					
Never	3	42.9	4	57.1	0.768
Rarely	16	50.0	16	50.0	
Frequency	135	54.2	114	45.8	

midwives has a significant relationship to the prevalence of stunting children under two with a value of $p < 0.05$.

Discussion

A midwife is a woman who graduated from a midwifery education recognized by the government and professional organizations in the territory of the Republic of Indonesia and has the competence and qualifications to be registered, certified and/or legally licensed to carry out midwifery practices. Midwives are responsible and accountable professionals, who work as partners for women to provide support, care and advice during pregnancy, labor, and childbirth, facilitate and lead delivery on their own responsibility and provide care for newborns, and babies. This care includes prevention, promotion of normal delivery, detection of complications in mothers and children, and access to medical assistance or other appropriate assistance, as well as carrying out emergency measures [10].

Midwives have an important task in counseling and health education, not only for women but also for families and communities. These activities include antenatal education and preparation for parenthood and can extend to women's health, sexual health or reproductive health, and child care. Midwives can practice in a variety of service settings: including at home, community, hospital, clinic, or other health units [10].

The Indonesian Midwives Association is a professional organization for midwives in Indonesia. It is a midwives' body in achieving their goals through policies to increase the professionalism of members to ensure that the community gets quality services. The Indonesian Midwives Association was founded on 24 June 1951, became a member of the Indonesian Women's Congress in 1951, and joined as a member of the International Confederation of Midwives in 1956. The mission of the Indonesian Midwives Association is to increase organizational strength, increase the role of the Indonesian Midwives Association in improving the quality of midwife education and services, improve the welfare of members and establish cooperation with networks. The values that underlie the Indonesian Midwives Association are prioritizing togetherness, unifying themselves in one forum, protecting members, self-development, participation in the community, maintaining the image of a midwife, and providing quality services to mothers and children.

A retrospective study assessed antenatal use using an index of prenatal care use. The use of intensive antenatal care was noted in more than half of low-risk women. On the other hand, there are 26% of women at high risk without the expected intensive use. High-risk or non-educated women tend to have higher rates of utilization of antenatal care compared to educated ones [11].

Antenatal care is defined as care provided by skilled health care professionals to pregnant women and women to ensure the best possible health conditions for both mother and baby during pregnancy. ANC components include risk identification; prevention and management of pregnancy-related or concurrent diseases; and health education and health promotion [12].

The Svefors (2019) study shows that currently, most interventions are carried out in late infancy and early childhood. Studies that identify the most critical prenatal and postnatal determinants of 0–24 months linear growth and risk factors for stunting at 2 years show that determinants of stunting in rural young children include a wide range of high-quality prenatal and postnatal data, household and family information, environmental factors, Child characteristic at birth, infant feeding and morbidity. Prenatal factors including childbirth, maternal anthropometry, and parental education are critical factors for stunting at 24 months of age [13].

The study of Schmidt (2002) shows that one of the determinants of growth and nutritional status of infants in Indonesia is a postnatal factor. Neonatal weight (3.2 ± 0.5 kg) and length (49.7 ± 2.2 cm) are still reasonable. However, growth starts to weaken at the age of 6–7 months or after delivery resulting in a prevalence of 24% stunting and 32% underweight at 12 months of age. Multiple regression models explain 19–41% of the variation in growth and nutritional status of infants. Neonatal weight (β = 0.285) and length (β = 0.492) were the strongest positive predictors of weight Z score for age and height for age [14].

Study Krisnana (2020) showed Exclusive breastfeeding was the only postnatal factor that was associated with stunting. Infants who were given exclusive breast milk had a 3.98 times lower risk of stunting compared to babies who did not get exclusive breast milk [15]. Early detection of postpartum depression, intervention, prevention or treatment of maternal depressive disorders, and effective measures will not only reduce the burden of postpartum depression on mothers but will also aid newborn growth [16].

Systematic reviews of 14 studies in low and middle-income countries show that the education of mothers and their partners is the most significant factor in influencing maternal health service use in addition to wealth quintile, media exposure, and rural/urban housing [17]. There are five factors that contribute to stunting, namely: household and family factors, inadequate complementary feeding, inadequate breastfeeding practices, infectious disease factors, and social and community factors. Household and family factors which include: malnutrition during pre-conception, pregnancy, and breastfeeding, short mothers, infections, teenage pregnancy, mental health, intrauterine growth retard (IUGR) and preterm birth, close labor distance, hypertension, stimulation and activity Inadequate children, poor care practices, Inadequate sanitation and water supply, food insecurity, inadequate household food allocation, and low caregiver education. Inadequate complementary food factors include; poor quality micronutrients in complementary foods, low food diversity and food ingredients containing anti-nutrition, low energy content in complementary foods, rarely, inadequate food during and after illness, consistency of liquid food, insufficient amount of food, food unresponsiveness, contamination of food and water, poor hygiene practices, and unsafe storage and preparation [18].

In Indonesia, the SUN Movement is called the National Movement for the Acceleration of Nutrition Improvement in the Framework of the First 1000 Days of Life, shortened to the First 1000 Days of Life Movement. To formulate the First 1000 Days of Life Movement in Indonesia, a series of activities have been carried out involving key stakeholders consisting of Ministries and Institutions, the business world, international development partners, social and community organizations, and supported by professional organizations, universities, and the media. The First 1000 Days of Life Movement consists of specific nutrition interventions and sensitive nutrition interventions. Specific intervention is an action or activity which in its planning is specifically aimed at the group of the First 1000 Days of Life. These activities are generally carried out by the health sector, such as immunization, supplementary feeding for pregnant women and toddlers, monitoring the growth of toddlers at integrated-service-post, supplementing pregnant women with iron-folate tablets, promoting exclusive breastfeeding, complementary feeding for breast milk, and so on. The specific intervention is short-term, the results can be recorded in a relatively short time. While sensitive interventions are various development activities outside the health sector. The target is the general public, not specifically for the first 1000 days of life. However, if planned specifically and integrated with specific activities, the impact is sensitive to the safety of the growth and development process of the first 1000 days of life [19].

Consistent evidence of the determinant of stunting in Indonesia shows that non-exclusive breastfeeding for the first 6 months, low socioeconomic status of the household, preterm birth, short birth length, low maternal height, and education are determinants of stunting in Indonesia. Breastfeeding children up to the age of two was targeted for measures to avoid stunting in children under the age of two following natural disasters [20]. Households with latrines that are not repaired and untreated drinking water are also at higher risk. Community factors, poor access to health care, and living in rural areas, have been repeatedly linked to stunting [21]. In carrying out infant and child feeding to the extent possible to avoid bottle feeding. If forced to use a milk bottle, a good knowledge of cleanliness and presentation is needed [22]. Counseling is a crucial component of an effective infant and young child feeding. Counseling takes place in person, with the counselor meeting with pregnant women, mothers of toddlers, and caregivers. The benefit of providing infant and young child feeding therapy is that mothers would be aware of their children's nutritional status [23]. Role of midwives and Indonesian midwives Association

in Reducing Risk Factors for Stunting in Indonesia is important in implementing postnatal care.

The limitation of this study is that the target sample is all midwives in Indonesia, but the sample is not evenly represented in several provinces in Indonesia.

Conclusions

Implement postnatal care as a duty of midwives has a significant relationship to the prevalence of stunting children under two with a value of p <0.05. Role of Midwives in reducing risk factors for stunting in Indonesia is important in implementing postnatal care. The suggestion of this research is that the results of this study can become a policy brief regarding the role and involvement of midwives and the Indonesian Midwives Association in an effort to prevent stunting in Indonesia.

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