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## Factors affecting the length of center release time in a baby in Pakong Village, Pakong Sub-District, Pamekasan District

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### **ABSTRAK**

Latar Belakang: Masalah kesehatan ibu dan perinatal merupakan masalah nasional yang perlu dan mendapat prioritas utama, karena sangat menentukan kualitas sumber daya manusia pada generasi mendatang. Berbagai upaya telah dilakukan untuk mencegah kematian neonatal yang diutamakan pada pemeliharaan kehamilan sebaik mungkin, pertolongan persalinan sesuai standar pelayanan dan perawatan bayi baru lahir yang adekuat termasuk perawatan tali pusat yang higienis.

Tujuan: Tujuan dilakukannya perawatan tali pusat adalah untuk mencegah terjadinya infeksi neonatorum, karena pada masa ini termasuk masa yang paling rawan bagi bayi. Adapun faktor-faktor yang mempengaruhi pelepasan tali pusat yaitu infeksi pada tali pusat, cara perawatan tali pusat, kelembapan tali pusat, dan kondisi sanitasi lingkungan. Apabila kurang benar dalam melakukan perawatan tali pusat akan berdampak terjadinya infeksi tali pusat yang ditandai dengan pembengkakan perut, keluarnya cairan berbau busuk dari daerah yang terinfeksi, demam dan perdarahan di sekitar tali pusat bayi, jika infeksi yang dibiarkan bisa menyebabkan kerusakan organ hingga membahayakan kesehatan bayi. Lamanya pelepasan sisa tali pusat bervariasi yaitu ada yang dalam waktu 3 hari, 5 hari, 7 hari ada yang sampai 2 minggu.

Metode: Berdasarkan tujuan penelitian, Desain penelitian yang digunakan dalam penelitian ini adalah analitik kuantitatif. Pendekatan yang digunakan adalah cross sectional. Variabel independen adalah cara merawat tali pusat, kelembaban tali pusat, kondisi sanitasi lingkungan. Sedangkan untuk variabel dependen yaitu lamanya pelepasan tali pusat. Responden adalah ibu yang memiliki bayi usia 0-3 Bulan sebanyak 30 orang. Pengambilan sampel menggunakan total sampling. Tempat penelitian di Desa Pakong kecamatan pakong kabupaten pamekasan.

Hasil: Uji validitas data menggunakan Berdasarkan hasil analisa data uji statistik dengan menggunakan Kendall Tau menunjukkan nilai taraf signifikan 0,000 < 0,05 (p-value maka Ho ditolak, artinya ada hubungan yang bermakna antara perawatan tali pusat pada bayi baru lahir dengan lama lepas tali pusat. pengaruh cara perawatan tali pusat terhadap lamanya pelepasan tali pusat p-value = 0,028, pengaruh kelembaban tali pusat terhadap lamanya pelepasan tali pusat p-value = 0,043, pengaruh kondisi sanitasi lingkungan terhadap lamanya pelepasan tali pusat p-value = 0,036. Alat ukur yang digunakan dalam penelitian ini adalah kuesioner dan Checklist.

**Kesimpulan :** Orang tua harus melakukan perawatan tali pusat pada bayi secara tepat agar tidak terjadi infeksi yang akan menbahayakan bayi. Diharapkan informasi ini membantu menyadarkan orang tua tentang pentingnya perawatan tali pusat dan tidak membubuhi apapun ke tali pusat bayi. Disarankan kepada praktisi pelayanan kebidanan agar dapat memberikan pelayanan perawatan tali pusat sesuai yang dianjurkan pada Asuhan Persalinan Normal.

KATA KUNCI: pelepasan tali pusat; perawatan tali pusat; perawatan bayi baru lahir; perinatal

### **ABSTRACT**

Bacground: Maternal and perinatal health problems are national problems that need and receive top priority, because they greatly determine the quality of human resources for future generations. Various efforts have been made to prevent neonatal mortality, which prioritizes the maintenance of pregnancy as well as possible, delivery assistance according to service standards and adequate newborn care including hygienic umbilical cord care. Objectives: The goal of doing umbilical cord care is to prevent neonatal infection, because this is the most vulnerable period for babies. As for the indicators that affect the release of the remaining umbilical cord, apart from being influenced by the care of the umbilical cord by keeping the umbilical cord dry and clean. Also influenced by the mother's compliance to clean the umbilical cord every day. Maternal hygiene when caring for the umbilical cord and the frequency of changing diapers every time the diaper is dirty and wet, and influenced by how to care for the umbilical cord, namely with sterile gauze, 70% alcohol gauze or 10% povidone. The duration of the release of the remaining umbilical cord varies, namely within 3 days, 5 days, 7 days, some up to 2 weeks.

Methods: Based on the research objectives, the research design used in this research is quantitative analytic, namely research that aims to determine the relationship between two or more variables with the data collection process which is only done once for each research variable. The approach used is cross sectional, namely research in which the independent variables and the dependent variable are measured simultaneously and carried out briefly or once. The independent variables in this study are how to care for the umbilical cord. humidity of the umbilical cord, environmental sanitation conditions. As for the dependent variable, namely the length of time to release the umbilical cord. The measuring instruments used in this study were questionnaires and checklists.

Result: The results showed that there was a significant effect between umbilical cord care and length of time to disconnect the umbilical cord with a value of p = 0.000.

**Conclusions:** there are several efforts that need to be considered. For the respondents, it is hoped that the mother will not only get information about umbilical cord care, but also learn about proper umbilical cord care.

KEYWORD: umbilical cord release; umbilical cord care; newborn care; perinatal

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### INTRODUCTION

Maternal and perinatal health problems are national problems that need and receive top priority, because they greatly determine the quality of human resources for future generations. Various efforts have been made to prevent neonatal mortality, which prioritizes the maintenance of pregnancy as well as possible, delivery assistance according to service standards and adequate newborn care including hygienic umbilical cord care(1)

The goal of doing umbilical cord care is to prevent neonatal infection, because this is the most vulnerable period for babies. As for the indicators that affect the release of the remaining umbilical cord, apart from being influenced by the care of the umbilical cord by keeping the umbilical cord dry and clean. Also influenced by the mother's compliance to clean the umbilical cord every day(2). Maternal hygiene when caring for the umbilical cord and frequency of changing diapers every time the diaper is dirty and wet, and is influenced by how to care for the umbilical cord, namely with sterile gauze, 70% alcohol gauze or 10% povidone. The duration of the release of the remaining umbilical cord varies, namely within 3 days, 5 days, 7 days, some up to 2 weeks(1)

One indicator of a nation's health status is the maternal mortality rate and infant mortality rate. Based on a study by the WHO (World Health Organization), the Infant Mortality Rate (IMR) was 35/1000 Live Births (KH), which was caused by infection and Low Birth Weight (LBW). Infectious diseases are one of the main causes of death in infants(3). Umbilical cord infection has been a constant cause of illness and death in various countries. each year 500,017 babies die from tetanus neonatorum and 460,017 die from bacterial infections In Southeast Asia, it is estimated that around 20,017 infant deaths are caused by less clean and unsterile cord care(4). The high rate of morbidity and mortality of newborns worldwide is caused by infection. In 2017 the World Health Organization (WHO) found an infant mortality rate of 560,000, while in Africa the infant mortality rate due to umbilical cord infection is around 126,000 (21%). Southeast Asia is estimated to have 220,017 infant deaths due to unclean umbilical cord care(5) So according to Dore (2015) it does not recommend cleaning the umbilical cord using alcohol because it slows down healing and drying of wounds.

Based on data from the United Nations (UN), the infant mortality rate in Indonesia in 2019 was 21.12. This figure decreased from records in 2018 when the infant mortality rate in Indonesia still reached 21.86 or in 2017 it reached 22.62(6).

Based on data from the East Java Health Office in 2014, there were 309 cases of Infant Mortality Rate (IMR) due to LBW 156 cases, 3 cases of tetanus neonaturum, 5 cases of sepsis, 27 cases of congenital abnormalities, 3 cases of icterus, etc. 35 case. There were 94 cases of

infants with pneumonia, 25 cases, diarrhea in 19 cases, gastrointestinal disorders in 9 cases, neurological disorders in 3 cases, and other problems in 38 cases(7)

Based on a preliminary study, the results of the researchers conducted in Pakong Village, Pakong Subdistrict, Pamekasan Regency, 10 postpartum mothers by way of direct interviews with respondents. Of the 10 postpartum mothers, only 5 people who know the cause of the length of time to release the umbilical cord and how to properly care for the umbilical cord for the baby, while the rest do not know(8). One of the efforts that can be made to reduce morbidity and mortality is by providing effective health services to the community regarding baby umbilical cord care, in carrying out these efforts, human resources who have the ability to provide quality services are needed. namely by providing education about health to the community so that the knowledge possessed by the community is expected to influence people's behavior towards health and the ability to live a healthy life starting from infancy because at this time there is growth and development that determines the quality of the brain in adulthood. In order to create healthy babies, the umbilical cord care for newborns is carried out in accordance with health procedures(9)

The fast delay of the release of the umbilical cord and how to care for the umbilical cord is a risk of umbilical cord infection and neonatal tetanus disease, apart from that umbilical cord infection can also cause death in neonates(10). Based on the background description, the authors are interested in researching the factors that influence the release of the umbilical cord in babies by taking the title "Factors Affecting the Length of Time to Release the Cord in Babies in Pakong Village, Pakong District, Pamekasan Regency in 2020.

### **MATERIALS AND METHODS**

Based on the research objectives, the research design used in this research is quantitative analytic, namely research that aims to determine the relationship between two or more variables with the data collection process which is only done once for each research variable(11) The approach used is cross sectional, namely research in which the independent variables and the dependent variable are measured simultaneously and carried out briefly or once. The independent variables in this study were how to care for the umbilical cord, humidity of the umbilical cord, and environmental sanitation conditions. As for the dependent variable, namely the length of time to release the umbilical cord. The measuring instruments used in this study were questionnaires and checklists.

# **RESULTS AND DISCUSSION** Description of the research area Health Facility Data

The facilities in Pakong Village include 1 Polindes which is occupied by 1 village midwife, and there are 7 posyandu, consisting of 5 cadres per posyandu.

## General Data

Table 1. Frequency distribution based on age of babies in Pakong Village, Pakong sub-district, Pamekasan Regency in 2020

Age (Years)		Frequency	Percentage (%)
	<20	12	40
	20-35	15	50
	>35	3	10
	Total	30	100

Source: Primary Data, 2020

Table 2. Frequency distribution based on education in Pakong Village, Pakong sub-district, Pamekasan Regency in 2020

Education	Frequency	Percentage (%)		
Elementary	16	53,3		
Intermediate	8	26,7		
Heigh	6	20		
Total	30	100		

Source: Primary Data, 2020

Table 3. Frequency distribution based on occupation in Pakong Village, Pakong District, Pamekasan

Regency Employment	Frequency	Percentage (%)		
Housewife	10	33,3		
Farmer	9	30		
Private	5	16,7		
Private Servant	6	20		
Total	30	100		

Source: Primary Data, 2020

Table 4. Frequency distribution based on parity in Pakong Village, Pakong District, Pamekasan

Parity	Frequency	Percentage (%)		
Primipara	12	33,3		
Multipara	18	3		
Total	30	100		

Source: Primary Data, 2020

Table 5. Frequency distribution by parity in Pakong Village, Pakong District, Pamekasan Regency

Paritas	Frequency	Percentage (%)
Primipara	12	33,3
Multipara	18	3
Total	30	100

Source: Primary Data, 2020

Table 6. Frequency distribution based on the sex of the baby in Pakong Village, Pakong District, Pamekasan Regency

Sex	Frequency	Percentage (%)
Female	17	33,3
Male	13	3
Total	30	100

Source: Primary Data, 2020

Table 7. Frequency distribution based on the umbilical cord clamp in Pakong Village, Pakong District, Pamekasan Regency

Cord Clamp	Frequency	Percentage (%)
Umbilical Clamps	13	33,3
Rubber	17	3
Total	30	100

Source: Primary Data, 2020

Table 8. Cross Tabulation of Umbilical Cord Care in Pakong Village, Pakong District, Pamekasan

Umbilical Cord care								
Laeght of	Good		Average		Less		Total	
Release	Σ	%	Σ	%	Σ	%	Σ	%
Fast	0	0	0	0	5	26,3	5	16,7
Modarate (Normal)	0	0	7	33,3	14	66,7	21	70
Old	3	75	1	25	0	0	4	13,3
Total	3	10	8	26,7	19	63,3	30	100

Field Data

### **DISCUSSION**

From the results of the study, it can be seen that most of the respondents performed umbilical cord care for newborns with good categories, the percentage results obtained were 63.3% (19 respondents), 8 respondents (26.7%) did with sufficient results and 3 respondents (10%) did less umbilical cord care. Two out of three respondents who performed umbilical cord care were under the age category> 35 years and had multiparous parity, the respondents felt that they had a lot of experience so they did not wash their hands before and after doing umbilical cord care, how to dry the umbilical cord is also only briefly. Whereas 1 of them is <20 years old, parity primiparous and junior high school education, the respondent has no experience in caring for the umbilical cord and the lack of information received by the mother, either through printed media, electronic media or from other people's experiences, the information received is still very limited. So that mothers do not take care properly, most of the ways of care are not carried out such as washing hands before and after caring for the umbilical cord will be more lasting than those not based on knowledge(12), because according to the mother it is not important, how to dry the umbilical cord is done in moderation, and when the umbilical cord is exposed to BAK, just dry it, not wash it with clean water.

Knowledge or cognitive is a very important domain for the formation of one's actions, because from experience and research it turns out that attitudes and behaviors are based on knowledge. From the results of the study in table 1, it was found that 18 respondents (60%) with multiparity parity, of the 18 respondents, 13 respondents (43.3%) performed umbilical cord care properly. Here it can be illustrated that the respondents who are multiparous pregnant women do the most good umbilical cord care. Parity can affect respondents in conducting umbilical cord care, where someone who

has had previous baby care can be used as experience for the next baby care. Based on table 2, the results of research on umbilical cord care at the age of the respondents, most of the respondents aged 20-35 years, performed good umbilical cord care as many as 14 respondents with a percentage (46.67%), well. For example, information is captured with eyes and ears that are still functioning properly, and applied well. This is in accordance with which states that the mother's age affects how to make decisions in maintaining her health. Based on the results of the research in table 1 shows that the most respondents in the SMP-SMA education level group with good umbilical cord care are 17 respondents with a percentage of 56.67%. do umbilical cord care well.

The level of education of a person can affect the making of an attitude because with sufficient knowledge he can make rational decisions. This is supported by the theory put forward by which is that the determination of a complete attitude is influenced by the level of education and health education, the only factors that affect a person's behavior, but are influenced by external supporting factors that can directly influence behavior change, such as the means owned(13). Other facilities provided by others for behavior change(14). The length of time to disconnect the umbilical cord From the results of the research in table 2 it can be seen that most of the respondents experienced a long time to disconnect the umbilical cord in a normal time with a percentage of 70% (21 respondents), 5 respondents (16.7%) experienced rapid detachment and 4 respondents (13.3%) experienced a long release with a time of more than 7 days, dry wounds will heal faster than wet, there are several factors that affect the length of time to disconnect the umbilical cord, namely the emergence of infection in the umbilical cord, how to care for the umbilical cord, and moisture in the umbilical cord and

environmental sanitation conditions and there are several supporting factors for drying and releasing the baby's umbilical cord, namely cleanliness of the umbilical cord area, nutrition of breast milk, maternal compliance in caring for the umbilical cord. And the psychological impact on the mother, makes the mother anxious, worried and afraid about the health of her baby. From the results of the study in table 3, there were 21 respondents with a percentage (70%)., 3%) are male. Most of the Indonesian population is women. From the results of the study in table 1, it was found that 13 respondents (43.3%) used umbilical clamps, 17 respondents (56.67%) used rubber.

Here, the results of the length of time to release the umbilical cord using rubber are at least 5 days and the highest is 8 days with an average of 5.17 while those using umbilical clamps are at least 5 days and the highest is 9 days with an average of 6.15 so it can be It is concluded that the quickest release time is using rubber. 3. Relationship umbilical cord care in newborns With a long time off the umbilical cord. From table 2 it can be seen that some of them. namely 15 respondents who performed good care (50.00%) and 15 respondents who performed good care, experienced a normal length of time off the umbilical cord (50%). Two respondents experienced long term loss of the umbilical cord in the category of long time probably because they did not do poor cord care (0.6%). Based on the results of statistical test data analysis using Kendall Tau, it shows a significant level of 0.000 < 0.05 (p-value, so Ho is rejected, meaning that there is a significant relationship between umbilical cord care in newborns and length of time off the umbilical cord(15). Detachment of the umbilical cord, namely the emergence of infection in the umbilical cord, how to care for the umbilical cord, humidity of the umbilical cord and environmental sanitation conditions and there are several supporting factors for drying

and releasing the baby's umbilical cord, namely cleanliness of the umbilical cord area, breast milk nutrition, maternal compliance in caring for the umbilical cor(16).

### CONCLUSION AND RECOMMENDATION

There is a significant effect between umbilical cord care and length of time to disconnect the umbilical cord with a value of p = 0.000.

Based on the above conclusions, there are several efforts that need to be considered.

For the respondents, it is hoped that the mother will not only get information about umbilical cord care, but also learn about proper umbilical cord care.

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