

Umbilical Cord Care: The Knowledge, Attitude and Practice among Mothers in Abakaliki, Ebonyi State, South-East Nigeria.Asiegbu UV¹, Asiegbu OG², Ezeonu CT¹¹Department of Paediatrics, Federal Teaching Hospital, Abakaliki, Ebonyi State, Nigeria.²Department of Obstetrics and Gynaecology, Federal Teaching Hospital, Abakaliki, Ebonyi State, Nigeria.**Correspondence Author:** Asiegbu OG, Department of Obstetrics and Gynaecology, Federal Teaching Hospital, Abakaliki, Ebonyi State, Nigeria.**Type of Publication:** Original Research Paper**Conflicts of Interest:** Nil**Abstract**

Background: Majority of Neonatal deaths are believed to be due to infections. Some of these infections start as umbilical cord infection. This has led to high neonatal mortality and morbidity especially in developing countries. Umbilical cord care and practices by mothers are diverse. This study aims to determine mothers' knowledge, attitude and practices of umbilical cord care in Abakaliki, Ebonyi State, South- East Nigeria.

Methods: The study subjects included 273 women attending antenatal clinics and mothers who brought their babies to Well Baby/Immunization in three Hospitals in Abakaliki. Information obtained were on mother's age, parity, educational status, place of delivery and ethnic group as well as what constituted cord care for their infants and when cord care was commenced. Data collection was done by the Paediatric resident doctors supervised by their consultants. Data was analyzed using Epi Info 7. 1. 3. 10 of CDC Atlanta.

Results: Women who had good knowledge of cord care were those aged 26 years and above (60.34%) and Teaching Hospital patients (37.07%). Majority (84.25%) mainly secondary and tertiary educated use methylated spirit, others especially those from rural areas

and with low education still use Vaseline or toothpaste or dusting powder and scent leaf local herb.

Conclusion:

There are still gaps in knowledge, attitude and practice of cord care among mothers at all levels. Periodic and quality health education on cord care should be given and sustained at all levels of contact.

Keywords: Umbilical cord care, knowledge, attitude, practice, Abakaliki

Introduction

Approximately 3.3 million neonatal deaths occur in the first 28 days of life^{1,2}. Ninety-eight percent of these neonatal deaths occur in developing countries, a third is believed to be due to infection. Some of these infections start as umbilical cord infection^{1,2}. Umbilical cord infections are important causes of neonatal morbidity and mortality in developing countries³.

Some researchers^{4,5,6} found that local perceptions and cultural beliefs and practices impacted the trend and what is used for cord care. Others^{7,8} observed that good knowledge, attitude and practice were found more among mothers who had higher level of education, lived in middle class areas and were older.

Knowledge, attitude and practice of cord care among mothers are diverse. This cuts across all levels, irrespective of place of delivery, level of education and locality. This study highlights mothers' knowledge, attitude and practices of umbilical cord care in Abakaliki, Ebonyi State, South- East Nigeria.

Methods

A cross sectional questionnaire based study was conducted on 273 pregnant and/or parous women attending antenatal clinics and women who brought their babies to the well-baby/ immunization clinics at three different Hospitals in Abakaliki. This was done over 4weeks and involved all the above mentioned women whose last delivery is less than two year and who also gave consent.

An initial pilot study was done and modifications made before administration of the modified questionnaires to the participants.

Information obtained were on mother's age, parity, educational status, place of delivery and ethnic group as well as what constituted cord care for their infants and when cord care was commenced.

Use of chlorhexidine or methylated spirit was considered beneficial while poor cord care included the use of hot compress, herbs, native chalk, salt, sand, saliva, palm oil, menthol-containing balm, petroleum jelly, and toothpaste alone or in combination. These practices were mainly done outside the hospital setting.

Ethical approval was obtained from the ethical committee of Federal Teaching Hospital, Abakaliki, Ebonyi state while Informed consent was obtained from the participants. Sample size was calculated using the formula as cited by Araoye's⁹. Data collection was done by Paediatric resident doctors supervised by their consultants. Data was analyzed using Epi Info 7. 1. 3. 10 of CDC Atlanta.

Results

Analyzed questionnaires were 273. Women aged 26-35 years (60.07%) and above had good knowledge of cord care. This was also observed in majority (74.57%) of urban dwellers and those who had tertiary education (51.72%)(P=0.025). Teaching Hospital parturients (37.07%) also had knowledge of proper cord care. Majority (83.52%) of urban dwellers and tertiary educated commenced cord care immediately after delivery, 1.47% had no idea about cord care. Of those (29. 67%) who believed that the cord should be covered with diapers, many (9.15%) had their babies at Teaching Hospital. Majority (84.25%) mainly secondary and tertiary educated use methylated spirit to clean the cord, 25.27% massage with hot water (P=0.001). Some (10.99%) apply chlorhexidine, this was significant in those with tertiary level of education (P=0.012). About 37% cover the stump with Vaseline, (P=0.002), 10.99% apply toothpaste while 6.59% apply dusting powder. Few (2.20%) apply scent leaf local herb.

Table I: Age distribution of respondents

Age(years)	frequency	percentage
<15	4	1.47%
15-25	81	29.67%
26-35	164	60.07%
36-45	22	8.06%
>45	2	0.73%

Table II: Linear Regression of knowledge of cord care and age in years

Variable(Age in years)	Coefficient	Std Error	F-test	P-Value
(15-25/<15)	-0.198	0.170	1.3497	0.246363
(26-35/<15)	-0.104	0.168	0.3808	0.537722
(36-45/<15)	-0.045	0.180	0.0635	0.801300
(>45/<15)	-0.500	0.287	3.0250	0.083139
CONSTANT	1.000	0.166	36.2998	0.000000

Correlation Coefficient: = 0.03

Table III: Respondents Knowledge and attitude about cord care.

Umbilical cord care means keeping the cord clean and dry, and free from infection.	Frequency	Percent	95% Conf. Limits
No	35	12.82%	9.09% - 17.38%
Yes	238	87.18%	82.62% - 90.91%
Smelling cord is a sign of infection	Frequency	Percent	95% Conf. Limits
Don't know	30	10.99%	7.54% - 15.31%
No	39	14.29%	10.36% - 19.01%
Yes	204	74.73%	69.13% - 79.77%
Should the cord be exposed and kept dry?	Frequency	Percent	95% conf. limits
Don't know	21	7.69%	7.54% -15.31%
No	109	39.93%	53.26% - 65.22%
Yes	143	52.38%	24.32% - 35.47%

Table IV: Practice: Substance applied to the umbilical cord

Substance Applied	Frequency	Percentage
Vaseline	101	37.00
Tooth paste(close-up)	30	10.99
Methylated spirit	160	58.61
Hot water	69	25.27
Scent leaf (nchoanwu)	6	2.20
Dusting powder	18	6.59
Chlorhexidine	30	10.99

Discussion

A substantial proportion of neonatal deaths occur as a result of infection of the umbilical cord. In this study, mothers aged 26 years and above (60.34%), had good knowledge of cord care. These women most likely were not exposed to early marriage therefore must have acquired some level of formal education before marriage and so are better informed. This finding is similar to a cross sectional survey done by Obimbo, Musoke and Were⁷ in Kenya.

Also women who had between 2-4 children had good knowledge of cord care when compared to those who have one or more than four. Those who have one child might be too naive and not experienced enough to give adequate

cord care to their baby while those who have more than four might be too busy to adequately care for the cord. Likewise, urban dwellers had good knowledge of cord care compared to the rural dwellers. While many know that a smelly umbilical cord is a sign of infection, some (14.29%) still do not know and some (10.99%) had no idea, even though WHO recommends that the umbilical cord should be kept clean and dry.

In many cultures, various substances are applied to the umbilical stump. Some of these include hot compress, herbs, native chalk, salt, sand, saliva, palm oil, menthol-containing balm, petroleum jelly, toothpaste, breast milk, cow dung, chicken faeces and dust^{4,5,6}. Most of these practices are harmful because these substances are often contaminated with bacteria and spores, thus increasing the risk of infections. This study also observed similar applications such as vaseline, tooth paste (close-up – in the belief that it will close up the cord), hot water, scent leaf (nchoanwu), and dusting powder.

Conclusion

There are still gaps in knowledge, attitude and practice among mothers at all levels. This was observed more in mothers who had low education, mothers who came from rural areas, irrespective of place of delivery (home, maternity centers and Teaching hospital). We recommend that periodic and quality health education on cord care should be at all levels of contact.

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