

Umbilical Cord Care Practices in the Volta Region of Ghana: A Cross Sectional Study.

By

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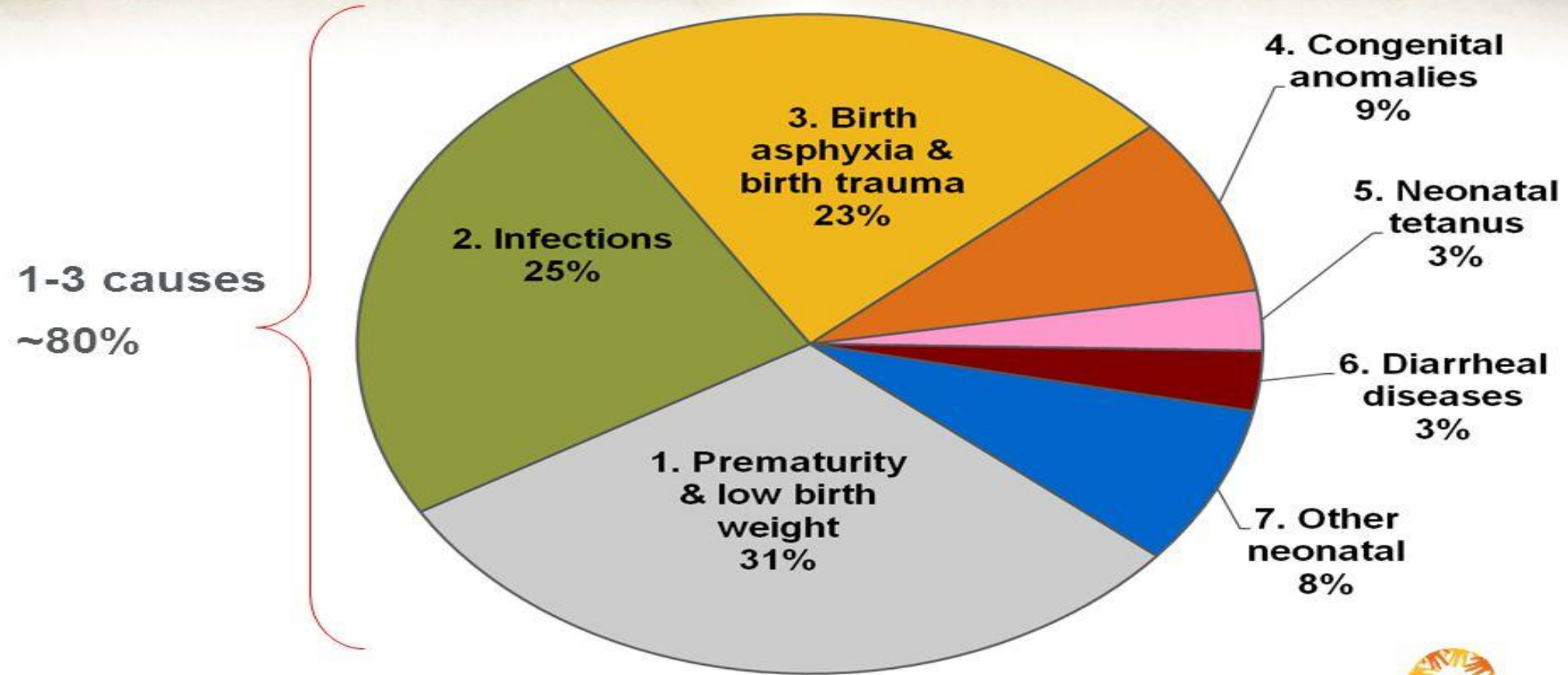
Objectives

- At the end of this presentation participants will;
 - Identify the non-medical (unhygienic) practices of care of newborn umbilical cord
 - Understand factors associated with non adherence of recommended cord care practice in Ghana

Background

- Infections account for approximately 36% of neonatal mortality worldwide.
- In developing countries infection of the umbilical cord is the leading sources of neonatal sepsis (Black et al., 2010)
- Neonatal sepsis may stem from local umbilical cord infections that become systemic.
- Most mothers and sometimes healthcare workers including traditional birth attendants may lack the necessary knowledge and skills to care for the umbilical cords of the newborns (Asif Padiyath, Bhat, & Ekambaram, 2010).

Major Causes of Neonatal Deaths



Source: World Health Organization. *The Global Burden of Disease: 2004 update*. WHO, Geneva, 2008.



Purpose of the Study

- To investigate the knowledge on umbilical cord care of health workers and mothers in the Volta region of Ghana and to learn about the current practices in this community.

Methods – Design and Sample

- This was a cross sectional study.
- Total of 102 mothers and 66 health workers in 11 health centers and hospitals in the Volta region of Ghana.
- Survey data was collected through face-to-face semi-structured interviews.

Methods – Design and Sample cont'd

- Mothers data included socio-demographic characteristics, the cord care treatment used for the most recent child, and sources of information regarding the treatment method.
- Healthcare workers were asked about their education and credentials, and their recommendations for cord care.

Methods - Statistical Analysis

- Data was analyzed using STATA version 11 (College Station, TX).
- Descriptive inferential statistics were used to summarize the percentages and variables.
- means of continuous variables and proportions of categorical Data was stratified by northern and southern Volta.
- Means were compared statistically with t-tests and proportions were compared with chi-square tests.

Result

- While the most commonly used practice for cord care was methylated spirits (68%), a significant number of mothers used non-recommended practices including shea butter (18%), toothpaste (4%), oil (2%), water (2%) and (6%) nothing.
- Overall 79% of the mothers surveyed received recommendations from healthcare workers on the best medical practice.
- Mothers residing in the southern Volta region or in urban areas and those with higher levels of education were most likely to follow best recommended practices for cord care.

Table 1: Socio-Demographic Characteristics of the Women Interviewed			
Characteristics	All N (%)	Southern N (%)	Northern N (%)
Age at Interview			
18 -24	37 (36)	14 (29)	23 (43)
25-34	54 (53)	27 (56)	27 (50)
35 and Above	11 (11)	7 (15)	4 (7)
Highest level of Education			
No School	27 (26)	9 (19)	18 (33)
Primary/Middle	51 (50)	26 (54)	25 (46)
Secondary and Above	24 (24)	13 (27)	11 (21)
Language of Interview			
Local Dialect	82 (80)	39 (81)	43 (80)
English	20 (20)	9 (19)	11 (20)
Rural Residence			
Yes	68 (67)	20 (42)	48 (89)
No	34 (33)	28 (58)	6 (11)
Married			
Yes	89 (87)	43 (90)	46 (85)
No	13 (13)	5 (10)	8 (15)
Employed			
Yes	18 (18)	8 (17)	10 (19)
No	84 (82)	40 (83)	44 (81)
Type of Occupation			
Professionals & Related Work	8 (8)	6 (13)	2 (4)
Clerks	3 (3)	2 (4)	1 (2)
Service workers	19 (18)	12 (25)	7 (3)
Sale workers	25 (25)	12 (25)	13 (24)
Elementary Workers/Housewives	37 (36)	14 (29)	23 (43)
Students or Apprentice	10 (10)	2 (4)	8 (15)
Religion			
Christianity	74 (73)	43 (90)	31 (57)
Muslim	22 (22)	1 (2)	21 (39)
Other	6 (5)	4 (8)	2 (4)

Table 2: Mothers Cord Treatment

	All n (%)	Southern N (%)	Northern n N (%)
Attended Prenatal Clinic			
Yes	102 (100)	48 (100)	54 (100)
No	0 (0)	0 (0)	0 (0)
Place of delivery			
Health facility	84 (82)	44 (92)	40 (74)
Home	18 (18)	4 (8)	14 (26)
Cord Care Treatment Used			
Methylated spirits	70 (68)	40 (84)	30 (56)
Water	2 (2)	0 (0)	2 (4)
Oil	2 (2)	1 (2)	1 (2)
Shea butter	18 (18)	5 (10)	13 (24)
Toothpaste	4 (4)	0 (0)	4 (7)
Other or nothing	6 (6)	2 (4)	4 (7)
Received Health Worker Cord Care Recommendations			
Yes	81 (79)	44 (92)	37 (69)
No	21 (21)	4 (4)	17 (31)
Timing of Health Worker Recommendations			
Before delivery	11 (11)	10 (21)	1 (2)
Just After delivery	67 (66)	33 (69)	34 (63)
Other time	24 (23)	5 (10)	19 (35)
Source of Cord Care Recommendations Followed			
Health worker	63 (62)	39 (81)	24 (44)
Other sources	39 (38)	9 (19)	30 (56)

Result cont'd

- Distrust in healthcare workers and low education levels were found to be the main barriers for adherence to the recommended practices.
- Health workers reported they were knowledgeable and confident in cord care practices (61%) and most (97%) supported medically recommended practices for cord care.
- Nurses and midwives were taught best practices of newborn cord care during their pre-licensure training

Table 3: Characteristics of Health Workers			
	All N (%)	Southern N (%)	Northern N (%)
Credentials			
CHN or EN	34 (52)	8 (31)	26 (65)
RN or RM	32 (48)	18 (69)	14 (35)
Work Location			
Rural	43 (65)	12 (46)	31 (78)
Urban	23 (35)	14 (54)	9 (22)
Care Provided			
Prenatal care	37 (56)	16 (62)	21 (52)
Delivery nurse	9 (14)	4 (15)	5 (13)
Post natal care	20 (30)	6 (23)	14 (35)
Years of Experience			
Less than 5 Years	58 (88)	22 (85)	36 (90)
Five Years and Above	8 (12)	4 (15)	4 (10)
Recommends Best Cord Care Practices			
Yes	64 (97)	26 (100)	38 (95)
No	2 (3)	0(0)	2 (5)
Where Cord Care Practices Were Learned			
During training/school	58 (88)	21 (81)	37 (93)
On the job	8 (12)	5 (19)	3 (7)
Timing of Cord Care Recommendations			
Before delivery	22 (33)	9 (35)	13 (33)
Just after delivery	42 (64)	17 (65)	25 (62)
Other time	2 (3)	0 (0)	2 (5)
Confidence Level for Making Cord Care Recommendations			
No or little confident	26 (39)	15 (58)	11 (28)
Very Confident	40 (61)	11 (42)	29 (72)

Implication

- More than 1 in 3 mothers do not follow the recommended practices in newborn cord care; even more do not follow recommended practices in the Northern region.
- Most healthcare workers are confident in their knowledge of cord care and do recommend standard practices.
- Public health interventions are needed to promote best practices for cord care especially in the northern Volta, in rural areas and among women with low education levels

Limitation

- Selection bias-subjects were selected from post natal clinics which
- Small sample size
- Mothers could not be linked to health worker that treated them

Next Steps

- Replicate this study in other part of Ghana with a larger sample size
- Design a program to increase trust among health workers and mothers
- Further study to determine if non medical cord treatment practices lead to cord infection

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Reference

- Asif Padiyath, M., Bhat, V. B., & Ekambaram, M. (2010). Knowledge attitude and practice of neonatal care among postnatal mothers. *Current Pediatric Research*, 14(2).
- Black, R. E., Cousens, S., Johnson, H. L., Lawn, J. E., Rudan, I., Bassani, D. G., ... & Eisele, T. (2010). Global, regional, and national causes of child mortality in 2008: a systematic analysis. *The lancet*, 375(9730), 1969-1987.

Thank you

Questions