

African Journal of Nursing and Health Issues

*Official Journal of the Department of Nursing, College of Medicine,
University of Ibadan, Ibadan, Nigeria.*

VOL. 10 NOS: 1 & 2

May/June,

November/December, 2019

Editorial Board

Prof. Prisca Olabisi Adejumo – Editor in Chief

Dr. F.A. Okanlawon

Dr. O. Abimbola Oluwatosin

Consulting Editors

Professor J.O. Aina – Nigeria

Dr. Uche Omekara- U.S.A.

Dr. Esther Fakeye - UK

Dr. Bola A. Ofi – Nigeria

Managing Editors

Prof. Prisca Olabisi Adejumo - Chairperson

Dr. Beatrice M. Ohaeri

Dr. Rose E. Ilesanmi

Dr. Chizoma M. Ndikom

Dr. Adeyinka G. Ishola

Ifeoluwapo O. Kolawole – Secretary

Subscriptions and Marketing

Two issues of AJoNHI are published per year (May/June and November/December editions) by the Department of Nursing, University of Ibadan, Nigeria. Annual Subscriptions: Nigeria and ECOWAS member states (₦2,000.00) individuals, institution ₦3,000.00. For advertisement and other marketing details, please contact: The Chairperson, Managing Editors.

African Journal of Nursing and Health Issues

Department of Nursing

University of Ibadan

Ibadan, Nigeria.

E-mail: uninursingjournal1965@yahoo.com

© Department of Nursing, University, of Ibadan, Ibadan. Nigeria

All Rights Reserved 2019

Published by:

Mola Print Associate, Ibadan

Nigeria

African Journal of Nursing and Health Issues

*Official Journal of the Department of Nursing, College of Medicine,
University of Ibadan, Ibadan, Nigeria.*

VOL. 10 NO: 2

November/December 2019

Table of Contents

Pages

Editorial

1. Family Support as Correlate of Well-Being among People Living with HIV/AIDS in Ibadan Nigeria
Ojedokun, I. M. 78-92
2. Experiences of Gender-Based Violence among Female Staff and Students of a University in Southwestern Nigeria
M. I. Olatubi, O. O. Irinoye, A. E. Olowokere 93-104
3. Awareness and Practice Measures of Obstetric Fistula among Pregnant women Attending Antenatal Clinic at Adeoyo Maternity Teaching Hospital in Ibadan.
A. M. Afolabi, C. A. Onyeneho, 105-118
4. Adolescents Sexual Behaviour in a Selected Secondary School in Ibadan
A. G. Ishola, O. P. Fawole 119-130
5. Nurses' Awareness and Practice of Hospital Discharge Planning Process: A Feasibility Study
I. O. Kolawole, P. O. Adejumo 131-141
6. Cultural and Clinical Implications of Cord Care Practices among Women of Saki West Local Government, Oyo State, Nigeria
O. A. Oluwatosin, G. O. Owolabi 142-155

**CULTURAL AND CLINICAL IMPLICATIONS OF CORD CARE
PRACTICES AMONG WOMEN OF SAKI WEST LOCAL
GOVERNMENT, OYO STATE, NIGERIA**

**O. Abimbola Oluwatosin RN, RM, PhD. FUICC, Department of Nursing,
University of Ibadan, Nigeria**

***Gbonjubola O. Owolabi (M.Sc.), Oyo State College of Nursing and Midwifery,
Eleyele, Ibadan, Nigeria**

***Corresponding Author:
gbonjubolaowolabi@gmail.com**

Abstract

Background: Harmful cultural practices relating to umbilical cord care may predispose neonates and infants to morbidity and mortality in Oyo State, Nigeria.

Aim: The study explored the cultural and clinical implications of umbilical cord care practices among women in Saki West, Oyo State, Nigeria.

Methods: A well-structured questionnaire was administered to sixty-two (62) women who were randomly selected from the Saki-West Local Government of Oyo State, Nigeria. The study applied frequency distributions, chi-square, and Spearman rank correlation to identify cord care practices among the respondents, using SPSS 16.0.

Results: The study shows that crude methods of cord care practices among rural women were not significantly associated with poor educational background, beliefs, previous experiences, religion, or occupation ($p > 0.05$). Results also show that ashes, saliva, and salt (24.2%), ashes and saliva (12.9%), the back of a tree and salt (9.7%), the blade of grass (9.7%), the unprotected razor blade (19.4%), and thread (66.1%), among others, remain predominant as current cord care materials.

Conclusion: Rural women still use traditional methods of caring for the umbilical cord, which has implications for both neonatal morbidity and mortality. Community-based intervention strategies that will be affordable and available should be the priority of policymakers for the community.

Keywords: Umbilical cord, Clinical practices, Neonatal morbidity, Mortality, Cord Care, Cultural practices.

INTRODUCTION

The umbilical cord (UC) which connects the baby and placenta to the uterus (the womb) is made of blood vessels and connective tissue. It is covered by a membrane that is normally bathed in amniotic fluid. After birth, cutting the cord physically and symbolically separates the mother and her baby¹. The umbilical cord therefore needs to be handled with care because if it is not well treated, it can be a source where harmful bacteria and viruses can invade the neonate. Globally, about 130 million babies are delivered annually, 4 million (3.1%) die within the first 4 weeks of life and 25 percent of these deaths are as a result of umbilical infection. In developing countries, most of the cord care is home-based since two-third of births take place at home. It was further stressed that in Nigeria, several hospital-based studies have reported cases of umbilical cord infections². For instance, in Port Harcourt, umbilical cord infection accounted for 10% of neonatal admissions and 30% of neonatal deaths. A review of umbilical infection in Ibadan showed that it accounts for 18% of neonatal deaths. Cord care can, therefore, be said to be sets of activities that are done on the umbilical cord of the infants to prevent mortality and risks of infections. Cord care practices in the community for births occurring at home can have some serious challenges. ³In a study, providers reported that strings from a piece of cloth, pullover, blanket, banana leaf sheath, corn husks, or sisal were used to tie the UC. The cord is then cut using a razor blade, a knife, fingernails, or sugarcane peels. Also, that substances that are applied to the cord after cutting include cow dung, traditional herbs, ash, soot, baby powder, spirit (whether surgical or methylated),

and droppings of chicken, lizard, or bat. The practices often resulted in umbilical infections and sometimes death. Providers in the study attributed these practices to socio-cultural beliefs, lack of information on available services, inability to afford the costs of health care, long distances to health facilities, and lack of birth preparedness.

Overall, majority of the respondents in another study were found to engage in good cord care practices as evident by the use of methylated spirit, cleaning of the cord from the base to the stump, hand washing prior to cord cleaning, and a higher frequency of cleaning⁴. A study carried out in Ethiopia on practices during childbirth and reasons for the practice, provides strong evidence of cultural practices during the entire period of pregnancy, delivery and after delivery including food taboo, cord-cutting by unsterile material, not to tie cord, abdominal massage, bush birthing practice, burying of placenta around the home, immediate bathing, and drying⁵. World Health Organization (WHO) recommends daily chlorhexidine (4%) application to the umbilical cord stump during the first week of life for neonates who are born at home in settings with high neonatal mortality (neonatal mortality rate >30 per 1000)⁶. Clean, dry cord care is recommended for neonates born in health facilities, and at home in low neonatal mortality settings. The use of chlorhexidine in these low-risk situations should only be considered to replace the application of a harmful traditional substance such as cow dung to the cord stump. Data on the pattern of umbilical cord stump care, separation time, and the effects of different cord care regimens are

useful lessons to be learned. Furthermore, nursing and midwifery intervention would positively influence health-seeking behaviour in addition to adult education. There is evidence on various issues on cord care practices and reasons for the mother's choice. This study assessed the cultural and clinical implications of cord care practices among women of Saki West, Oyo State, Nigeria.

METHODS

Design and setting

This descriptive cross-sectional study was conducted in Saki West Local Government Area, Oyo State, Nigeria.

Instrument

A semi-structured questionnaire sectioned into four with section A looking at demographic characteristics, section B delivery and immediate cord care after birth, section C method of cord care, section D factors that influence cord care practices and used to collect data from a cross-section of 62 women to assess the socio-cultural and clinical implications of cord care practices among the women in Saki-West Local Government of Oyo State. The questionnaire was purposely designed for preliminary investigation and scrutinized.

Population and sampling technique

A multistage sampling technique was employed to select the respondents in the study area. Firstly, the study purposively chose Saki-West local government because of the low hospital birth attendance record. This same technique was adopted in the second stage to select three wards out of the eleven wards from

the local government. The third stage involved a random selection of five communities from the selected wards in the second stage based on the lucky-dip approach^{7,8} while the last step involved a random selection of sixty-two (62) married women that were used for the study.

Ethical considerations

Before the commencement of the study, permission was sought from the Local Government Secretariat. Also, the approval of the Oyo state ethical research committee was obtained. The study complied with all regulations and informed consent was obtained from participants. Permission was sought from individual respondent, the procedure was explained to the respondent orally hence consent was given orally, emphasis was laid on their willingness to participate in the study and they were at liberty to opt out at any point from the study. Acceptance to participate however means consent.

Data analysis

Data analysis was carried out using Statistical Package of the Social Sciences Version 16.0 (SPSS). The analysis gave an outline of the frequency distribution of demographic characteristics of the respondents and some key variables relevant to the study objectives and the research questions. The demographic data were analysed using the frequency tables and simple percentages. Chi-square statistical analysis was used to test the hypotheses at $p < 0.05$ level of significance, while spearman rank correlation was used to show the relationship between cord care practice and independent variables.

RESULTS**Table 1: Demographic characteristics of the respondents****N = 72**

Demographic characteristics	144	Fr %	p< value
Age (Mean ± SD = 40.4 ± 19.0) years			
12-25		18 (29)	p=0.048
26-39		13 (21)	
40-53		14 (22.6)	
54-67		9 (14.5)	
68-81		7 (11.3)	
No response		1 (1.6)	
Parity			
1-5		47 (75.8)	
6-10		14 (22.6)	
No response		1 (1.6)	
Sex of last child			
Male		26 (41.9)	
Female		21 (33.9)	
No response		15 (24.2)	
Religion			
Islam		54 (87.1)	
Christian		7 (11.3)	
Africa. Tradition		1 (1.6)	
Marital status			
Married		54(87.1)	
Divorced		5 (8.1)	
Widowed		2 (3.2)	
No response		1 (1.6)	
Level of education			
Primary		4(6.5)	
JSS		2 (3.2)	
SSS		1 (1.6)	
No formal education		55 (88.7)	
Family type			
Monogamy		22 (35.5)	p>0.05
Polygamy		31 (50.0)	
Others		4 (6.4)	
No response		5 (8.1)	
Ethnicity(mother)			
Yoruba		36 (58.1)	
Igbo		1 (1.6)	
Hausa		3 (4.8)	
Others		15 (24.2)	
No response		7 (11.3)	
Ethnicity(father)			
Yoruba		34 (54.8)	
Igbo		2 (3.2)	
Hausa		2 (3.2)	
Others		17 (27.4)	
No response		7 (11.3)	
Occupation			
Trader		27 (43.5)	
Farmer		30 (48.4)	
Tailor		4 (3.2)	
No response		1 (1.6)	
Place of birth (last child)			
Home		34 (54.8)	
General hospital		15 (24.2)	
Private hospital		4 (6.5)	
Mission hospital		1 (1.6)	
Primary healthcare		7 (11.3)	
No response		1 (1.6)	

Demographic characteristics of the respondents are presented in Table 1. Fifty percent (50%) of the respondents are between age 12-39 (50%), three-quarter of the respondents 47(75.8%) had a parity between 1 to 5. Less than half of the respondents 26 (41.9%) last child is male; many of the respondents were Muslim

(87.1%), 54(87.1%) were married while 55(88.7%) had no formal education. Half of the respondents 31(50.0%) are polygamous, 36(58.1%) of the respondents are Yoruba; 34(54.8%), 30 (48.4%) were farmer while 34(54.8%) of the respondents had their last birth at home.

Table 2: Delivery and immediate cord care practices among women in Saki-West Oyo State

Delivery and immediate cord care after birth	Frequency (%)
The timing of cord cutting by birth attendant	
Immediately after birth	7 (11.3)
After the placenta was delivered	51 (82.3)
After Milking the cord	1 (1.6)
I don't know	1 (1.6)
No response	2 (3.2)
Mean±SD	1.9±0.7
Material used to tie the cord	
Strings	1 (1.6)
Thread	41 (66.1)
Strip of cloth	5 (8.1)
Cord clamp	8 (12.9)
Others	1 (1.6)
No response	6 (9.7)
Mean±SD	2.18±1.1
Instrument used to cut the cord	
New or boiled blade	8 (12.9)
Old Unboiled blade	6 (9.7)
Tailor's Scissors	
Cord Scissors	19 (30.6)
Leaves	1 (1.6)
Blade of grass	6 (9.7)
Heated Knife	1 (1.6)
Razor Blade	12 (19.4)
Others	3 (4.8)
No response	3 (4.8)
Mean± SD	6.4±4.6
Material applied to cord stump after birth	
Methylated spirit	19 (30.6)
Ankara material	1 (1.6)
Ashes	3 (4.8)
Erun Alamo	3 (4.8)
Alligator Pepper (Atare)	2 (3.2)
Black soap	1 (1.6)
Ashes and saliva	6 (9.7)
Potash	5 (8.1)
Black soap and lime	2 (3.2)
Powder and methylated spirit	3 (4.8)
Blade and lantern	4 (6.5)
No response	13 (21.0)

Mean± SD

4.5±4.7

Table 2 above shows that 51(82.3%) of the respondents agreed that birth attendant cut the cord after the placenta was delivered; 41(66.1%) agreed that thread was used to tie their baby cord; 19(30.6%) agreed that the instrument used for cutting the cord was cord scissors while 19(30.6%) agreed that material applied to cord stump after

birth was methylated spirit. This aligns with the study where it was stated that the umbilical stump cord is always cut and secured with various materials, also that using strings of clothes in tying umbilical cord and cleaning the cord stump with methylated spirit were steps involved in good cord care practices⁴.

Table 3: Correlation between good cord care practice and time of cutting the cord

Variables	1	2	3	4
Good Cord care practice	1			
Immediately after birth	-.016	1		
After the placenta was delivered	1.000**	-.016	1	
After milking the cord	.373**	.013	.373**	1

****.** Correlation is significant at the 0.01 level

Correlation between cord care practice and dependent variables are reported in Table 3. The result shows that there are statistically significant correlations existing between cord care practice and time of cord cutting (after the placenta was delivered and after milking of the cord). The correlations between cord care and

these dependent variables are quite high, above 0.35. The highest correlation exists between good cord care practice and cutting after placenta was delivered ($r = 1.0$). Only cutting after birth has a negative correlation though not significant with cord care practice among all the dependent variables

Table 4: Correlation between good cord care practice and instrument used to tie the cord

Variables	1	2	3	4	5
Good cord care practice	1				
Use string	.445**	1			
Use thread	.714**	.672**	1		
Use strip of cloth	.617**	.820**	.933**	1	
Use cord clamp	.684**	.728**	.962**	.954**	1

****.** Correlation is significant at the 0.01 level

As shown in Table 4, Pearson's correlation coefficients are calculated to determine if statistically significant relationships exist between cord care practice and instrument used to tie the cord. The correlations between cord care practice and some

independent variable (string, thread, strip of cloth, cord clamp) are statistically significant. They yield correlation coefficients greater than 0.4, which indicates that relationships exist between the mentioned

variables (Table 4). All the variables have positive relationship with cord care practice; none exhibits negative relationship with cord care practice.

Table 5: Correlation between good cord care practice and material applied to the stump

Variables	1	2	3	4	5	6
Good cord care practice	1					
Methylated spirit	.373**	1				
Ankara material	.370**	.955**	1			
Alligator pepper	.131	.735**	.666**	1		
Black soap and lime	.365**	.911**	.950**	.641**	1	
Blade and lantern	-.038	.081	.135	.034	.140	1

****.** Correlation is significant at the 0.01 level

Table 5 presents the correlations between cord care practice and materials applied to the stump. Among the variables, methylated spirit, ankara (fabric) material and black soap and lime were found to be correlated positively with good cord care practice (r= 0.37, 0.37 and 0.36) and

significant at p<0.01 level of significance. By the same token, there has been a strong positive association between cord care practice and respondents' belief that substance should be applied directly on the cord p<0.01 (Table 5).

Table 6: Clinical implications of cord care practices among the participants

Cord care Practices	Fr (%)
The day which the cord fell off	
Third day	31 (50.0)
Seventh day	13 (21.0)
No response	18 (29.0)
Mean±SD	0.92±0.7
Presence of any infection	
Yes	5 (8.1)
No	56 (90.3)
Indifferent	1 (1.6)
Mean±SD	1.91±19.0
Source of information about cord care	
Nurse	14 (22.6)
Doctor	3 (4.8)
Mother	17 (27.4)
Mother-in-law	20 (32.3)
No response	8 (12.9)
The cultural/traditional ways to care for the cord	
Back of a tree salt	6 (9.7)
Ashes and saliva	15 (24.2)
Animal fat	3 (4.8)
Toothpaste and salt	5 (8.1)
Erun Alamo	3 (4.8)
Bombom leaves	3 (4.8)
Ashes, saliva and salt	8 (12.9)
Bombom and calabash	1 (1.6)
No response	18 (29.0)

Table 6 above shows that 50.0 percent of the respondents agreed that cord fall off on the third day 90.3 percent agreed that there was infection 32.3 percent received

information about cord care from their mother-in-law while 24.2 percent agreed that ashes and saliva were the traditional ways to care for the cord.

Table 7: Socio-cultural implications of cord care practices of the participants

Cord care Practices	Fr (%)
Ways by which women applied the substance	
Directly on the cord	12 (19.4)
In a cloth heated on lantern	3 (4.8)
Others	2 (3.2)
No response	45 (72.6)
Reasons for selecting the substance used in cord care	
Keep devil away	2 (3.2)
Make wounds(stump) heal fast	31 (50.0)
Make stump falls within 3-4days	16 (25.8)
Cost effectiveness	2 (3.2)
Quick relieve to newborn and mother	2 (3.2)
No response	9 (14.5)
Information which nurses should give women about cord practices	
Treat well, apply heat to avoid infection	4 (6.5)
Tell mothers to use methylated spirit	6 (9.7)
Tell mothers to take care of cord	8 (12.9)
Always use scissors to cut the cord	1 (1.6)
Mothers should use antiseptics	4 (6.5)
Mothers should fear God and yield to counsel	1 (1.6)
Tell them on dangers of traditional methods and encourage them to visit clinics	1 (1.6)
Tell mothers to use hot water thrice daily	1 (1.6)
No response	34 (54.8)

Table 7 above shows that 72.6 percent of the respondents did not give response to how they apply substance 50.0 percent gave reason for selecting substances used

for cord care because they want wounds (stump) to heal fast 54.8 percent did not give response on what they think nurses should tell them about cord practices.

Table 8: Correlation between good cord care practice and belief that substance should be applied directly on the cord

Variables	1	2	3	4	5	6
Good cord care practice	1					
To keep away devil	.935**	1				
To make stump heal fast	.938**	.820**	1			
To make stump fall within 3-4days	.862**	.728**	.954**	1		
Cost effective	.888**	.774**	.967**	.968**	1	
Quick relieve to new-born and mother	.798**	.666**	.917**	.951**	.943**	1

****.** Correlation is significant at the 0.01 level

Correlation between good cord care practice and respondents' belief that substance should be applied directly on the cord is reported in Table 8. Most importantly, the analysis showed that higher correlations exist between

cord care practice and each of the variables which is higher than 0.80. All the variables are statistically significant with the cord care practice.

Table 9: Correlation between cord care practice and belief that substance should be applied in a cloth heated on lantern

Variables	1	2	3	4	5	6
Cord care practice	1					
Keep away devil	.017	1				
Make stump heal fast	.159	.820**	1			
Make stump fall within 3-4days	.285*	.728**	.954**	1		
Cost effective	.211	.774**	.967**	.968**	1	
Quick relieve to new born and mother	.388**	.666**	.917**	.951**	.943**	1

***. Correlation is significant at the 0.05 level; **. Correlation is significant at the 0.01 level**

Correlation between cord care practice and respondents' belief that substance should be applied in a cloth heated on lantern was reported in Table 9. The result shows that there are statistically significant correlations existing between cord care practice and respondent's beliefs that substance should be applied in a cloth

heated on lantern (it will make stump fall within 3-4days and quick relieve to new born and mother). The correlations between cord care and these dependent variables are moderately high, above 0.28. The highest correlation exists between cord care practice and to bring quick relieve to new born and mother ($r = 0.39$).

Table 10: Frequency of cord care practices among the participants

How did you care for the cord?	Always	ST	N	NR
	Frequency (%)			
Use of cow dung on cord stump	1(1.6)	Nil	7(11.3)	54 (87.1)
Use of methylated spirit	30 (48.4)	1 (1.6)	25 (40.3)	6 (9.7)
Use of dusting powder	19 (30.0)	3 (4.8)	35 (56.5)	5 (7.1)
Use of heat from lantern	25 (40.3)	3 (4.8)	29 (46.8)	5 (8.1)
Use of earthen piece to apply heat	43 (69.4)	4 (6.5)	7 (11.3)	8 (12.9)
Use of hot water to clean the cord	42 (67.7)	2 (3.2)	12 (19.4)	6 (9.7)

Note: ST =sometimes, N =Never, NR =No response. $p < 0.05$ when compared with factors that influence cord practices [(df =10-20; 0.001 – 1.00)].

Table 10 above shows that 48.4 percent of respondents agreed that they used methylated spirit for care of the cord, 46.8 percent never used heat of lantern, 69.4

percent always used earthen piece to apply heat while 67.7 percent always used hot water to clean the cord.

Table 11: Factors influencing cord care practices

Factors	SA	A	D	SD	ND	NR
	Frequency (%)					
Methylated spirit on cord is against culture	16 (25.8)	5 (8.1)	5(8.1)	31 (50.0)	4(6.5)	1 (1.6)
Cost is a major determinant	14 (22.6)	1 (1.6)	8 (12.9)	34 (54.8)	4(6.5)	1 (1.6)
Culture is a major determinant	32 (51.6)	5 (8.1)	4 (6.5)	14 (22.6)	4(6.5)	3 (4.8)
Use of dusting powder is very common	21 (33.9)	10 (16.1)	5 (8.1)	20 (32.3)	4(6.5)	2(3.2)
Traditional method of cord care is best	27 (43.5)	8 (12.9)	3 (4.8)	15 (24.2)	8(12.9)	1 (1.6)
The information given by TBA is very important because they understand our belief	21 (33.9)	13 (21.0)	3 (4.8)	12 (19.4)	10(16.1)	3 (4.8)
Exposing cord and applying methylated spirit delay falling off of the cord stump	32 (51.6)	7 (11.3)	6 (9.7)	11 (17.7)	5 (8.1)	1 (1.6)
Sex of the baby determine how long it takes before the cord fall off	11 (17.7)	2 (3.2)	8 (12.9)	34 (54.8)	7(11.3)	0,0
The place of delivery of the baby determines how the mother will care for the cord	39 (62.9)	12 (19.4)	1 (1.6)	5 (8.1)	5(8.1)	0,0
Experience with previous children will determine cord care in subsequent babies	38 (61.3)	14 (22.6)	1 (1.6)	2 (3.2)	5(8.1)	2 (3.2)

Note: S = strongly agree, A = Agree, D =Disagree, SD =Strongly Disagree, ND =Not

Decided, NR =No Response. p<0.05

Table 11 shows that 43.5 percent of the respondents strongly disagreed with inadequate nurses in the clinic as a factor that influenced cord care practices. About half of the respondents (50.0%) strongly disagreed with methylated spirit being against the culture as a factor, 54.8 percent strongly disagreed that cost is a determinant in cord care practices, while

51.6 percent of the respondents strongly agreed that culture is a factor. Half of the respondents (51.6%) strongly agreed that exposing cord and applying methylated spirit delay falling off of the cord stump is a factor, 54.8 percent strongly disagreed that sex of the baby determines how long it takes before the cord falls off; while 62.9

percent of the respondents strongly agreed that the place of delivery of the baby determines how the mother will care for the cord.

DISCUSSION

From the results, most respondents were married. The findings revealed that socio-demographic characteristics of participants have no influence on their choice of crude methods for cord care. This is in consonant with findings of a study⁹ where the crude methods of cord care practices had no significant association with educational, background believes, previous experiences, religious as well as occupation. Also, in another study¹⁰,

where 30% of respondents claimed that cord scissors were used to cut cord this was similar to findings of⁴. It was revealed that few of women claimed to have patronized general hospital. However, ashes, saliva and salt, ashes and saliva, back of tree and salt, blade of grass, unprotected razor blade, and thread were the commonly used cord care materials among the respondents. This is at variance with what some researchers^{11,7} observed in their studied population.

In all, respondents claimed that their traditional methods enhanced early fall off (3rd day, 50%; 7th, day 21%) and hasten healing processes of the cord stump. The result as well revealed that virtually all women studied were aware that methylated spirit is being use in accordance with previous studies⁷. Less information was available from nurses compared with information from mothers and mother-in-law on prescribed material but this is at variance with what was reported in a study¹¹ that there were more than 62.9 percent information from nurses as opposed to 25.3 percent from mothers and none from mother-in-law. Furthermore, the use of ashes and saliva were found in most women. This result is in consonant with the study¹¹ which stated that traditional practices of cord care in Benin City include the use of hot compress, menthol containing balm, herbs, native chalk, petroleum jelly, palm-oil, toothpaste (Close-up), salt, sand and saliva.

Fast healing was one of the most reasons for cord care practices as identified by respondents. This is comparable to the study¹² which found that the reasons given for applying these substances to the cord

are mainly to promote cord separation and to prevent bleeding from the stump. The use of methylated spirit was common among respondents. This is in agreement with the study carried out in Maiduguri¹³, where 140 (38.4%) of the respondents used methylated spirit, 84 (23.2%) used hot compress. Other methods used by the respondents were; charcoal, 23 (6.3%), Methylated spirit with Traditional mixture 20 (5.5%), Dustin Powder 17 (4.7%) and cow dung 10 (2.7%). Other methods include: toothpaste 10 (2.7%), salt 18 (2.2%).

There is a great influence of culture on cord care practices among women especially in the aspects of mothers and mothers-in-law roles, place of birth and history of previous births. This is inconsonant with the findings of a study in Benin City which said that the choices of cord care methods eventually practiced, particularly non-beneficial ones, were determined mainly by influences of nurses (51.3%), participants' mothers (32.0%), and their mothers-in-law (5.8%)¹². These are indeed important personalities in the lives of these mothers and it is therefore not surprising that they would accede to them. They could therefore be targeted in the campaign against the use of harmful substances in the treatment of the umbilical cord stumps in babies. Factors that influence cord care practices significantly ($p < 0.05$) correlated with methods of practices.

List of key points

- Majority (75.0%) of respondents adhere to the crude method of cord care. It then means that change is inevitable to them. These women did not embrace new technologies

of cord care even though it implies both morbidity and mortality of neonates.

- Their level of education (88.7% had informal education). The fact that respondents are majorly peasant farmers also has implications for their consistency on utilizing crude methods to care for cord which has implications for the enactment of community-based policy which will be culturally acceptable and hygienic for all and sundry.
- More than half of respondents refuse hospital delivery which has implications for consideration of policies that can embrace domiciliary midwifery or home delivery by qualified trained midwives or health personnel in these communities.
- Result of findings in Tables 2 and 6 revealed that respondents make use of crude materials to care for the cord despite the dangers to the health of neonates hence future research should target an intervention study that will make use of new technology in caring for the cord with a view of convincing the target population on the benefits of such.
- Crude methods of cord care practices among rural women are insignificantly associated with poor educational background beliefs, previous experiences religion as well as occupation.
- The role of mothers and mother-in-law cannot be overemphasized here as they can easily influence the community at large.

CONCLUSION

Rural women studied are mostly informally educated and this militates against being able to adopt the new and modern trend of cord care as most of them depend solely on oral instructions passed down by their mother-in-law or mothers, there is need for government to extend education to the rural women either through adult literacy programme and encouraging the community to send their girl child to school, there is need to educate the mothers on the ideal of modern cord care practice in the market places, mosques, and churches, using of jingles and mass media can serve as a means of enlightening the community. The study showed that rural women still use traditional methods which are associated with the cultural belief of Yoruba in caring for the cord which ran contrary to the modern method of cord care practice and has implications for both neonatal morbidity and mortality. Therefore, community-based intervention strategies that will be affordable and available should be the priority of policymakers for that community through key people (mothers, mother-in-law) in the community who can easily persuade nursing mothers positively. A new innovation of 7.1% chlorhexidine digluconate can be introduced to mothers as a fast means to heal the cord stump. There is also the need to reinforce positive cultural methods of child backing, breastfeeding to mothers in the community.

RECOMMENDATIONS

In view of the above, the following actions are recommended by the researchers:

- Nurses should be charged more to pay more attention to sensitising

pregnant women on the best cord care practices.

- Reinforce positive cultural methods of child backing breastfeeding to mothers in the community is needed.
- New innovation 7.1% chlorhexidine digluconate should be introduced to the community as one fast means to healing the cord stump
- Communicate the ideal methods of cord care to mother in the market place, mosques, and churches
- Use of Town criers to communicate the ideal way of caring for cord of the new-born.
- Use of leaflets, jingles and other means of advertisement like radio, television etc., on evidence-based health education on cord care to the communities
- Health education of mothers at every contact that is, antenatal, post-natal, infant welfare clinic or new baby clinic and other special clinics on cord care is of utmost importance.

ETHICAL PERMISSION

For this study, approval was sought from Oyo State Ethical Review Board; Letter of Permission from the Saki West Local Government and inform consent of the respondents was also gotten.

REFERENCES

1. Quattrin et al. 70% Alcohol versus Dry Cord Care in the Umbilical Cord Care: A Case-Control Study in Italy. *Medicine*. April, 2018;(95):14. ISSN: 0025 7974 DOI: 10.1097/MD.00000000000003207
2. Osuchukwu EC et al. Knowledge of Standard Umbilical Cord Management among Mothers in Calabar South Local Government Area, Cross River State, Nigeria. *International Journal of Nursing Science*. 2017;(7):3, 57-62 DOI: 10.5923/j.nursing.20170703.01
1. Muriuki A, Obare F, Ayieko B, Matanda D, Sisimwo K and Mdawida. Health care providers' perspectives regarding the use of chlorhexidine gel for cord care in neonates in rural Kenya. Implications for scale-up. *BMC Health Services Research*. 2017;17. 10.1186/s12913-017-2262-8.
2. Afolaranmi TO, Hassan ZI, Akinyemi OO, Sule SS, Malete MU, Choji CP and Bello DA. Cord Care Practices: A Perspective of Contemporary African Setting. *Front. Public Health*. 2018; 6:10. doi: 10.3389/fpubh.2018.00010#
3. Kitila SB, Molla W, Wedaynewu T, Yadessa T, Gellan M. Folk Practice During Childbirth and Reasons for the Practice in Ethiopia: A Systematic Review. *Gynecol Obstet*. 2018;8:465. doi:10.4172/2161-0932.1000465
4. WHO recommendations on newborn health: guidelines approved by the WHO Guidelines Review Committee. Geneva: World Health Organization; 2017 (WHO/MCA/17.07). License: CC BY-NC-SA 3.0 IGO.
5. Erhabor POI and Ojogbo O. Demand analysis for rice in Nigeria. *Journal of Food Technology*. 2011;9(2): 66-74
6. Ogunleke AO and Baiyegunhi, LJS. Households' Acceptability of

- Local (Ofada) Rice based on Quality Attributes in South-West, Nigeria. *British Food Journal*.2019;121(9): 22333-2248
7. Amolo L. et al. Knowledge of postnatal mothers on essential newborn care practices at the Kenyatta National Hospital: a cross sectional study. *Pan African Medical Journal*. 2017; 28:97 doi:10.11604/pamj.2017.28.97.13785
 8. Mahama S, Fusena A, and Felicia V. Prevalence and determinants of essential newborn care practices in the Lawra District of Ghana. *BMC Pediatrics*. 2018; 18:173 <https://doi.org/10.1186/s12887-018-1145-4>
 9. Mukhtar-Yola M, Iliyasu Z, Wudil BJ. Survey of umbilical cord care and separation time in healthy newborns in Kano. *Niger J Paediatr*. 2011;38(4):175–81. doi:10.4314/njp.v38i4.72280
 10. Abhulimhen-Iyoda BI, Ibadin MO. Determinants of cord care practices among mothers in Benin City, Edo State, Nigeria. *Niger J Clin Pract*. 2012; 15:210-3. Available from: <http://www.njcponline.com/text.asp?2012/15/2/210/97320>
 11. Dathini, H, Kever RT, Uba M.N, Nelson L, Haruna H, AyubaG.A, Friday I.E and Damkor P.I. Survey of umbilical cord care practices and separation time in healthy newborn in Maiduguri, Nigeria, *Clinical Nursing Studies* 2018, Vol. 6, No. 4. DOI: 10.5430/cns.v6n4p94.

DECLARATION OF INTEREST

The author reports no conflicts of interest. The two authors are responsible for the content and preparation of this paper.

List of Terminologies and Terminologies

*Erun Alamo - Local herbs

*Bom Bom and *Bom Bom Leaves refer to same plant

Abbreviations

JSS -Junior Secondary School

SSS- Senior Secondary School