

## Knowledge and Practice of Episiotomy among Midwives at Adeoyo Maternity Hospital Ibadan Oyo State Nigeria

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### ABSTRACT

**Background & Aim:** Although there are records of episiotomy being used for more than a century. However, in the 1950s, the practice of episiotomy was common among midwives around the world and this practice was widespread until it began to be questioned by research findings in the 1980s. Despite the body of knowledge, episiotomy is still a common midwifery practice. The thrust of this study is to examine the knowledge and practice of episiotomy among midwives at Adeoyo Maternity Hospital, Ibadan, Nigeria

**Method:** A cross sectional design was adopted and sample size of 150 calculated using Slovin formula was used. 150 questionnaires were distributed to the midwives in the selected wards of the hospital. Reliability of the instrument was done via test- retest method with a coefficient of stability of 0.774. The data were analyzed using Chi-square and Analysis of Variance via the Statistical Product Service Solution (SPSS) at 0.05 level of significant.

**Result:** About 70% of the respondents with over 11 years of experience are between age 36 years and above ( $p = 0.000$ ) while about 70% of the respondents with less than 10 years of experience are Registered Nurse/ Registered midwives (RN/RM). There is no significant difference on the rate of giving episiotomy between respondents with more than 11 years' experience and the respondents with less than 10 years' experience ( $p$ - value = 0.395). There is no difference in knowledge of episiotomy between the respondents with more than 11 years of experience and the respondents with less than 10 years' experience ( $p$ - value = 0.167)

**Conclusion:** The rate of giving episiotomy is declining as midwives improve their knowledge about delivery and this can be achieved through

continuous education and research oriented practice.

**Key Words:** Knowledge, Practice, Episiotomy, Midwives, Maternity

### INTRODUCTION

Episiotomy is a surgical incision made in the perineum during labour to ease child birth <sup>[1,2]</sup> and it is a common midwifery practice across the world starting from 1950s when the procedure was advocated to 1980s when midwives had started discussing the need for restrictive use of the procedure. <sup>[3-7]</sup> In most countries of the world, its routine use have been contested for more than two decades and studies have shown that there is a steady decline in the routine use of episiotomy among midwives. For instance, Weber and Meyn <sup>[8]</sup> reported that 31% of women having babies in U.S hospitals received episiotomies in 1997 compared with 56% in 1979.

In developing countries, routine episiotomy remains midwives' common procedure during child birth. Teckla, Omoni, Mwaura & Omuga <sup>[1]</sup> reported the midwives' response from an interview in a study at Liverpool, U.S where midwives were drawn from Nigeria, Ghana, Zambia, Kenya, Malawi, Nepal and most of them considered routine episiotomy to have more good than harm. The midwives indicated that episiotomy was performed routinely to primigravida to prevent third degree laceration. Also, it appears that many episiotomies are still being performed because people who were trained in an era

when routine episiotomy was standard have not changed their practices and then pass to younger midwives.

Traditionally, midwives have used episiotomies with the opinion that it will lessen perineal trauma, minimize postpartum pelvic dysfunction by reducing anal sphincter muscle damage, reduce the loss of blood during delivery and protect against neonatal trauma. While all these are advantages ascribed to the use of episiotomy over the years, studies however have shown that episiotomy itself can cause all these problems. [2,3,9-12] Hartmann, Viswanathan, Palmieri, Gartlehner, Thorp, Lohr [13] opined that giving episiotomy can pave way for continuous tearing of the perineum which may not occur in natural tears. Similarly, Weber & Meyn, Low, Seng, Murtland & Oakley [8,9] noted that when an incision is made the cut may continue tearing on its own and becomes difficult to fix which is unlikely when the vaginal opening tear naturally.

Research evidence shows that a lot of women especially the primigravida are afraid of delivery in an established hospital due to fear of routine use of episiotomy. [3] In Nigeria, researches which sample the responses of women on problems they face after they are giving episiotomy is limited owing to diversity in women perception and need. Nevertheless, in the U.S, studies in 2010 based on interviews with postpartum women have concluded that limiting perineal trauma during birth is conducive to continue sexual function after birth [10,11] From experience, midwives across cadre, level of education, years of experience, practice settings have divergent perception about the frequency, risk associated and the care of episiotomy. Therefore, it was the interest of the researchers to assess the knowledge and practice of episiotomy among midwives at Adeoyo Maternity Hospital Ibadan, Oyo, Nigeria. The hospital is a major hub for midwifery practice in South West Nigeria.

## METHODS

This was a cross sectional research design with a focus on eliciting information from practicing midwives at Adeoyo Maternity Hospital, Ibadan, Oyo State, Nigeria using a self-structured closed ended questionnaire. The questionnaires were distributed to the midwives covering morning and afternoon shifts in various wards/clinics of the maternity hospital at different time in the same day. Morning shift runs from 8am to 2pm while the afternoon shift runs from 2pm to 8pm daily. The settings for the study included various wards, clinic and unit of the hospital such as Antenatal clinic, Ante natal ward, labour room, Gynecological ward, lying in ward, family planning Unit.

The sample size estimation was done by the Slovin's formula for sample size estimation and the sample was 150 midwives with consideration for attrition rate. Midwives on managerial role and those on leave were exempted from the study. Simple random technique through balloting was used to select midwives for the study from various wards/clinics.

Slovin's formula is given as:

$$n = \frac{N}{1 + N(e)^2} \text{ (Araoye 2004) [14]}$$

Where:

n = Required sample

N = Size of the population

e = Error of tolerance which is 0.05

Given N = 200

$$n = \frac{200}{1 + 200(0.05)^2}$$

$$n = \frac{200}{1 + 200 \times 0.0025}$$

$$n = \frac{200}{1.5}$$

$$n = 133.33$$

$$n \approx 133$$

To calculate attrition rate

$$n = \frac{1}{1 - f} \times \text{calculated sample size}$$

$$1 - f$$

Where f = attrition = 10%

$$n = \frac{1}{1 - 0.1} \times \text{calculated sample size}$$

$$1 - 0.1$$

$$\text{Therefore Sample Size } n = \frac{1.11 \times 133}{0.9} = 147.63$$

Sample Size  $\approx$  150

A self-structured questionnaire consisting of 30 items was used to collect

data from the midwives after face and content validity. The questionnaire was divided into section A and B. Section A focused on demographic data of the respondents while Section B which was divided into two parts elicited information on respondents' knowledge and practice of episiotomy.

The reliability of the instrument was done through test- retest method where by ten questionnaires were first administered to ten midwives at Jericho General Hospital, Ibadan and same ten questionnaires were re-administered two weeks after. The instrument was found reliable with coefficient of stability of 0.774. All the suggestions and amendments from expert in midwifery practice were considered before collection of data.

The data obtained were cleaned, coded and analyzed using Chi-square and Analysis of Variance via the Statistical Product Service Solution (SPSS) at 0.05 level of significant. The findings were presented in tables. Ethical issues were considered from institutional to personal level; Permission to carry out the study was obtained from University of Ibadan/ University College Hospital Ethical Committee while informed consent was obtained from the midwives before filling the questionnaires.

## RESULT

Table 1 shows the socio demography distribution of respondents by years of experience. From the table, the age distribution of the respondents with work experience of over 11 years versus those with work experience less than 10 years is statistically different, so about 68% of the respondents with over 11 years' experience are more than 36 years old while only about 6% of the respondents with work experience of less than 10 years are 36 years old (p-value = 0.000).

Also, there is a statistical difference between the marital status of the respondents with over 11 years of

experience and the respondents with less than 10 years' experience; Essentially, about 78% of the respondents with more than 11 years' experience are married while in the group of respondents with less than 10 years of experience about 45% are married (p-value < 0.000).

Considering the respondents educational level, there is a statistical difference in the Registered Nurse/ Registered Midwives (RN/RM) qualifications of the respondents in the two groups; about 67% of the respondents with less than 10 years of experience are RN/RM certified while less than 50% of the respondents in the group with more than 11 years' experience are RN/RM certified (p-value = 0.037)

Table 1: Socio - demography distribution of respondents by years of experience

Variable	Experience duration		P value
	≤10	≥11	
<b>Age</b>			
<b>20-25</b>	57(48.3)	4(12.4)	0.000*
<b>26-30</b>	35(29.7)	0(0.0)	
<b>31-35</b>	19(16.1)	6(18.8)	
<b>36 an above</b>	7(5.9)	22(68.8)	
<b>Religion</b>			
<b>Islam</b>	25(21.2)	5(15.6)	0.168
<b>Christianity</b>	92(78.0)	25(78.1)	
<b>Traditional</b>	1(0.8)	1(3.1)	
<b>None</b>	0(0.0)	1(3.1)	
<b>Marital status</b>			
<b>Single</b>	60(50.8)	4(12.5)	0.000*
<b>Married</b>	54(45.8)	25(78.1)	
<b>Divorced</b>	4(3.4)	1(3.1)	
<b>Widowed</b>	0(0.0)	2(6.3)	
<b>Educational level</b>			
<b>RN/RM</b>	80(67.8)	19(59.4)	0.037*
<b>BNSC/BSC</b>	36(30.5)	9(28.1)	
<b>MSc</b>	2(1.7)	3(9.4)	
<b>PHD</b>	0(0.0)	1(3.1)	

Table 2 shows the proportion of respondents' practice and skill on episiotomy by years of experience. The method of giving mediolateral episiotomy is statistically different between respondents with more than 11 years of experience and the respondents with less than 10 years' experience, about 81% of the respondents with less than 10 years' experience practice mediolateral episiotomy which is about 43% in the group with more than 11 years' experience (p- value = 0.000).

**Table 2: Proportion of respondent's practice and skill on episiotomy by years of experience**

Variable	Years of Experience		P value
	≤10	≥11	
<b>When last did you read journals</b>			
Last week	44(37.3)	9(28.1)	0.119
Last month	26(22.0)	3(9.4)	
Last year	35(29.7)	13(40.6)	
none	13(11.0)	7(21.9)	
<b>Best method of giving episiotomy</b>			
Mediolateral	96(81.4)	14(43.8)	0.000*
Median	4(3.4)	0(0.0)	
Lateral	17(14.4)	16(50.0)	
None	1(0.8)	2(6.3)	
<b>Factors that predispose women to episiotomy</b>			
Length of 2 <sup>nd</sup> stage labour	68(57.6)	11(34.4)	0.000*
Occiput posterior position	9(7.6)	1(3.1)	
fetal macrosomia	22(18.6)	2(6.3)	
Primigravida fetus	19(16.1)	18(56.3)	
<b>Factors that may predispose Primigravida to episiotomy</b>			
Fear of pain	52(44.1)	7(21.9)	0.026*
Age	18(15.3)	11(34.4)	
Lack of exercise during pregnancy	18(15.3)	3(9.4)	
Midwife skills	30(25.4)	11(27.3)	
<b>Advantage of episiotomy is that</b>			
It decreases the amount of push the mother must do during labour	33(28)	9(28.9)	0.616
It makes expulsion of baby from the birth from the birth canal faster	31(26.3)	11(34.4)	
It decreases trauma to the vaginal	35(29.7)	6(18.8)	
A surgical incision is easier to repair than a spontaneous tear	19(16.1)	6(18.8)	
<b>How often do you give episiotomy</b>			
2 in 10	77(65.3)	21(65.6)	0.395
4 in 10	16(13.6)	6(18.8)	
6 in 10	6(5.1)	3(9.4)	
Never gave episiotomy	19(16.1)	2(6.3)	
<b>The following will improve midwives skill of giving episiotomy and care</b>			
Length of practice	47(39.8)	18(56.3)	0.375
BNSC certificate	30(25.4)	7(21.9)	
In-service training	32(27.1)	5(15.6)	
MSc in maternal and child health	9(7.6)	2(6.3)	
<b>Most complication of episiotomy</b>			
Bleeding	32(27.1)	8(25.0)	0.945
Incontinence	26(22.0)	6(18.8)	
Infection	52(44.1)	16(50.0)	
dyspareunia	8(6.8)	2(6.3)	
<b>Best advocated of perinal damage</b>			
Application of cold pack	25(21.2)	4(12.5)	0.703
Use of sitz bath	44(37.3)	12(37.5)	
Cleaning perineal with antiseptic	33(28.0)	11(34.4)	
Cleaning with water after defecation or urination	16(13.6)	5(15.6)	
<b>Factors affecting healing of episiotomy</b>			
Age of woman	26(22.0)	5(15.6)	0.709
Parity	5(4.2)	2(6.3)	
Depth of the cut	31(26.3)	11(34.4)	
Suturing method	56(47.5)	14(43.8)	
<b>Episiotomy practice is still common among midwives due to</b>			
Lack of information about its risk & complication	45(38.1)	8(25.0)	0.153
It is culturally acceptable	6(5.1)	4(12.5)	
It is part of midwives training	29(24.6)	12(37.5)	
It reduces maternal mortality	38(32.2)	8(25.0)	
<b>Best time of suturing episiotomy wound is</b>			
Immediately after delivery	90(76.3)	23(71.9)	0.148
20-60 minutes of delivery	17(14.4)	2(6.3)	
After 60 minutes of delivery	3(2.5)	3(9.4)	
No specific time	8(6.8)	4(12.5)	
<b>Best suturing techniques to achieve less short term pain</b>			
Continuous subcutaneous stitch	63(53.4)	19(59.4)	0.002*
Interrupted suturing	35(29.7)	2(6.3)	
Both	9(7.6)	9(28.1)	
Undecided	11(9.3)	2(6.3)	
<b>Best suture for repair of episiotomy</b>			
Catgut	94(79.7)	29(90.6)	0.170
Zilk	15(12.7)	0(0.0)	
Nylon	5(4.2)	1(3.1)	
vicry	4(3.4)	2(6.3)	

Based on the factors predisposing women to episiotomy, there is a statistical difference on the length of second stage of labour between respondents with more than 11 years of experience and the respondents with less than 10 years of experience, about 57% of the respondents with less than 10 years' experience indicated length of second stage of labour while it is about 34% in the group with more than 11 years of experience (p- value = 0.000).

Similarly, on the factors that may predispose primigravida to episiotomy, there is a statistical difference between the two groups, about 44% of the respondents with less than 10 years of experience indicated fear of pain as a factor while it is mainly about 22% in the group with more than 11 years' experience (p- value= 0.026)

However, there is no significant difference on the rate of giving episiotomy between respondents with more than 11 years' experience and the respondents with less than 10 years' experience, about 65% of the respondents in both groups give 2 episiotomies in 10 deliveries

Table 3: Association between respondent's knowledge of episiotomy and years of experience

Variable	Years of Experience		P value
	≤10	≥11	
Knowledge of episiotomy			
Poor	26(22.0)	12(37.5)	0.167
Average	58(49.2)	11(34.4)	
Good	34(28.8)	9(28.1)	

Table 3 shows the association between respondents' knowledge of episiotomy and years of experience. There is no difference in knowledge of episiotomy between the respondents with more than 11 years of experience and the respondents with less than 10 years' experience (p- value = 0.167)

## DISCUSSION OF FINDINGS

Traditionally, midwives are known to have a unique role of preventing adverse outcome when women are in labour. Research findings contesting the ascribed benefits to episiotomy have become standard. Several studies have shown that episiotomy procedure has a lot of demerits

than the often ascribed benefits and this corroborates Low et al, Inyang-Etoh & Umoiyoho, Bhattacharjee, Maier & Maloni. [2,3,9,10] opinions that episiotomy has no benefit and its use is not scientifically supported.

Similarly, Hartmann et.al, Chighu, Onwere, Aluka, Kamanu, Adibe [13,15] argued that giving of episiotomy can actually prone the woman to having tears and then requires more stitches and experience more pain after childbirth. Again, Carroli, Belizan & Stamp, Haadem [5,16] asserted that women undergoing episiotomy are characterized by greater blood loss during delivery and there is also a risk of improper wound healing and increased pain during the early puerperium. However, there is paucity of data about the knowledge and rate of episiotomy among Nigerian midwives. This study examines the knowledge and practice of midwives about episiotomy and its care in a major midwifery setting in South West Nigeria.

Specifically, about two-thirds of the midwives in this current study give two episiotomies in ten deliveries. This shows that the rate of giving episiotomy among the midwives is declining and this result is in consonance with Weber and Meyn [8] finding that episiotomy rate declined from 1979 to 1997 in the United States. Lorenz, Nougara and Garner [17] noted that little is known about the rate of giving episiotomy in Africa. This study however provides a level ground to examine the rate of giving episiotomy among the Nigerian midwives [15]

Although the rate of giving episiotomy by the midwives is declining, however, the midwives reported average knowledge about episiotomy. The average knowledge is closely related to midwives lack of further education and inadequate exposure to disseminated information about episiotomy and its care from the global communities. About half of the practicing midwives are mainly registered midwives (RN/RM) without further education that can improve their knowledge about the

profession.

Similarly, the midwives do not often research and keep abreast the needed information about episiotomy which can be accessed in journals and other periodicals. Therefore, it can be concluded that continue practice of episiotomy can be linked to midwives low education rather than years of experience and this is in line with studies which opined that increased education can improve midwives skill. Wu LC [18] concluded that practice protocols and educational programmes are needed to change episiotomy practice. Therefore, midwives should opt for more studies to better their service delivery to women.

For instance, length of second stage of labour and fear of pain were considered by the midwives as the major factors predisposing women especially primigravida to episiotomy and is in congruent with Williams, Du, Florey, Mires, Ogston [19] finding that there is likelihood of having an episiotomy increased with the duration of the second stage of labour. This implies that the incidence of episiotomy can be further reduced if the midwives improve their knowledge about ante-natal care and intensify effort for the proper management of the second stage of labour whereby the women fear is allay through various education and supportive therapy about the process of labour. Education is key to evidenced base practice and further decline in the rate of episiotomy and management of women in labour cannot be achieved unless the midwives improve their education

Furthermore, midwives are generally insensitive to further education own to perpetual believe that years of experience or length of practice is the major tool to improve midwives skill on midwifery practice. However, extant studies have shown that midwives skill, best practices and education are not mutually exclusive. Also, this study shows that the average knowledge about episiotomy span across midwives years of experience. This further proof that improving midwives care to

women require continuous education rather than isolated years of experience.

This study is limited to hospital in a section of South West geo-political zone of Nigeria and is not appropriate for generalization to all midwives in Nigeria. There is no specific acceptable rate of episiotomy through literature studies. Rate of 2 in 10 deliveries in this study is believed to be appropriate however further studies need to be conducted in a similar setting to support the purported decline in the episiotomy rate.

## CONCLUSION

This study has shown that midwives have average knowledge about the challenges impose by episiotomy to reproductive women despite the declining in the rate of giving episiotomy during labour. The midwives rely to greater extent on the length of practice than further education to improve their practice.

The study shows that the method and rate of giving episiotomy is similar across all midwives cadres and this reflect the midwives usual transfer of ideas, principles from generation of midwives to another whereas this study also revealed that education is essential for continuous declining in the rate of episiotomy and improving midwives competency in midwifery practice.

Adequate information about labour, episiotomy and puerperium should be advocated to enable the midwives aware of the various risks and complications associated with the practice of episiotomy. Midwives should not limit themselves to diploma education but aspire to acquire more education that can influence their practice.

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