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Post Episiotomy Morbidity among Parturient in Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi State

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Abstract

Background: Episiotomy is a very common obstetric surgery, and it could be associated with serious complications. However, these complications largely are not noticed due to the shift of attention from mother to baby, after a successful delivery. **Objective:** To identify the morbidities associated with episiotomies and factors associated with such morbidities. **Method**: This was a questionnaire based cross sectional descriptive study among women who attended the Obstetric Department of Alex Ekwueme Federal University Teaching Hospital Abakaliki Ebonyi State, between 1st July and 31st Nov, 2023. The study population consisted of parturients who had episiotomies in their previous confinements, attending either the antenatal clinic or the postnatal clinic at Alex Ekwueme Federal University Teaching Hospital Abakaliki Ebonyi State. **Results**: Macrosomia was the most common indication of episiotomy at a rate of 31.6%. The majority of episiotomies were performed on the parturients in their first confinement at a rate of 64.5% and the majority of repairs were performed by the Registrar at a rate of 65.0%. Informed consent was obtained from 45.79% of parturients while 54.21% were not informed before the episiotomy was administered. Only 55.3% of the parturient received analgesia before episiotomy was administered. The majority of the parturients had their episiotomy repaired between 10 - 15 minutes at a rate of 40.3%. Postoperative pain at the rate of 44.5% was the most common complication and dyspareunia as a form of sexual complication was the commonest at a rate of 31.3%. **Conclusion**: The parturient needs to be properly counselled before administration of episiotomy and adequate analgesia should be given, as episiotomy is a surgical procedure. Proper training of health workers on both the technique of administering and repairing episiotomy is important. Restrictive use of routine episiotomy in

primigravidae is advised to reduce the rate of episiotomy.

Keywords

Episiotomy, Vulva, Pains, Primigravidae, Morbidities, Analgesia

1. Introduction

Episiotomy can be defined as a surgical incision made on the perineum to increase the diameter of the vulva outlet, during the latter part of the second stage of labour, to facilitate vaginal delivery [1] [2]. It is the most common obstetric surgical operation [2]. Vaginal lacerations are common during childbirth, to reduce its incidences and its attendant complications, midwives and obstetricians may be compelled to make surgical incisions to increase the diameter of the vaginal outlet to facilitate the birth process [1] [3] [4]. However, the potential complications of this procedure are often underestimated. These complications largely go unnoticed, because of the deviation of attention after successful delivery and subsequent loss of follow up of parturient after delivery [5].

Despite current evidence supporting the restrictive use of episiotomies with 10% recommended by World Health Organization [6]. The incidence of episiotomy world-wide ranges from 20% to 100% with a wide inter-centre variations [1] [7]. Routine episiotomy is still an integral part of the traditional midwifery practice in Nigeria [5]. The practice of routine episiotomy has resulted in a high episiotomy rate in many countries and regions, reaching 30% [1] in Europe, 62.5% [1] in the USA, 80% [8] in Argentina and about 100% [1] [8] in Taiwan Region. In Nigeria, the incidence ranges from 20.8% - 54.9% [7]. There is a wide variation in the incidence of episiotomies reported in Nigeria, for example, in Zaria, the incidence of episiotomy is 35.6% [9], 46.6% in Benin [10], 54.9% in Lagos [11], 39.1% in Portharcourt [12] and 40.4% in Enugu [8]. These were higher than the 10% recommended by World Health Organization.

Episiotomy was more frequently performed in primiparae, aimed at protecting the perineum from imminent tear [8]. Other indications for episiotomies include foetal distress, instrumental delivery, assisted vaginal breech delivery, preterm babies, previous third-degree and fourth-degree perineal tears, past history stress incontinence, prolapse and vesico-vaginal fistula following delivery; and persistent occipito-posterior position [3] [7] [13] [14].

Maternal benefits of episiotomy are a reduction in likelihood of third-degree perineal tears, the preservation of the perineal muscles, relaxation of the pelvic floor and perineum leading to improved sexual function, reduced risk of faecal and urinary incontinence, as well as ease of repair and better healing, as compared to laceration, because it is straight clean incision. [7] [8] [14]. For the neonate, it is suggested that episiotomy reduces the prolonged second stage of labour in some cases of rigid perineum. Thereby preventing foetal asphyxia, cranial trauma, cerebral haemorrhage and mental retardation. It may also reduce the

possibility of shoulder dystocia [7] [8].

The practice of routine episiotomy has resulted in high episiotomy rates with increased accompanying complications [5]. Complications associated with episiotomy include; postpartum pain, haemorrhage, local anaesthetic toxicity, urinary retention, constipations, wound infections, wound breakdown, interference with mothers' comfort during postpartum period, sexual dysfunction (e.g. dysparuenia and laxity of vagina), iatrogenic cutting of the anal sphincter or rectum especially in midline episiotomies or unavoidable extension of the incision, unsatisfactory anatomical outlooks such as skin tags, asymmetry or excessive narrowing of the introitus, vaginal prolapse, recto vaginal fistula and fistula in-ano [1] [5] [7] [14] [15]. Careful inspection of episiotomy site for its extent and possible extensions and proper repair as soon as possible after delivery, would help in the reduction of the complications associated with episiotomy [14].

Avoiding routine episiotomy would help to improve the health of women, increase the rate of intact perineum or limit perineal trauma and reduce postpartum pain and maternal morbidities [3] and improve positive birth experience.

2. Justification of Study

Episiotomy is the most common surgical operation in Obstetrics. It is carried out by all cadres of Midwives and Doctors without considering the remote rates of immediate and long term complications.

1) This study is intended to highlight and document the post-episiotomy morbidities/complications experienced by women who had episiotomy during delivery that most providers or care givers are often unaware of.

2) Also to document the incidence of post episiotomy complication in Alex Ekwueme Federal University Teaching Hospital Abakaliki.

3. AIM

To determine post episiotomy morbidities among parturients in Alex Ekwueme Federal University Teaching Hospital, Abakaliki.

Specific Objectives

1) To determine the major predictors of episiotomy in Alex Ekwueme Federal University Teaching Hospital Abakaliki.

2) To determine the relationship between health attendants at delivery and the rate of episiotomy.

3) To determine the percentage of parturients that had verbal or any other forms of consent before episiotomy.

4) To determine the relationship between the health attendants that repair the episiotomy and the associated morbidities.

5) To determine the average delivery-repair time interval after episiotomy.

6) To help document the gravity of the complications associated with episiotomy which has gone unnoticed by most practitioners.

4. Materials and Method

4.1. Study Area

The study was carried out in the Obstetrics department of Alex Ekwueme Federal University Teaching Hospital Abakaliki (AEFUTHA), Ebonyi State. The hospital is situated at the centre of the State capital. The department of Obstetrics and Gynaecology of the hospital maintains an Accident and Emergency, labour ward, antenatal ward and antenatal clinic, postnatal ward and postnatal clinic for booked and unbooked patients. The labour wards offer 24 hours services and are manned by consultants and resident doctors with trained nurses and midwives. The annual rate of vaginal deliveries from the labour ward is 2506.

4.2. Study Design

This was a questionnaire based cross sectional descriptive study among women who attended the Obstetric Department of Alex Ekwueme Federal University Teaching Hospital Abakaliki Ebonyi State between 1st July and 30th November 2023. The study population includes parturient who had episiotomies in their previous confinements, attending either the antenatal clinic or the post natal clinic of AEFUTHA, and consented to participate in the study.

4.3. Sample Size Determination

Sample size was determined using Fisher's (1998) formula for sample size determination.

$$n = Z^2pq/d^2.$$

where n is the desired sample size population, Z is the standard normal deviate-set at 1.96 and corresponds to 95% confidence level, p is prevalence rate of episiotomy (40.4%), q is $1 - p$ and d is 0.05 (5% error margin).

Hence $n = 1.96^2 \times 0.404\ (1 - 0.404)/0.05^2$

$n = 3.8416 \times 0.404\ (0.596)/0.0025$

$n = 1.5520064 \times 0.596/0.0025$

$n = 369.99$

$=370$

An attrition rate of 10% ($370 \times 0.10 = 37$) was used to accommodate attritions and omissions during the study. Hence total sample size is $370 + 37 = 407$.

4.4. Data Collection

Parturient who had episiotomy in their previous deliveries and now pregnant, attending Antenatal clinic and those who had episiotomy in their current deliveries and attending postnatal clinic at 6 weeks were given the structured anonymous questionnaire, as displayed in **Appendix 1**. The questionnaire was pretested prior to distribution and necessary corrections were made. The researcher and the research assistants personally administered the questionnaire after obtaining an informed consent from parturients. Every parturient who had episi-

otomy in her previous confinement and attending antenatal or postnatal clinic that consented to participate in the study were recruited (**Appendix 2**).

4.5. Data Analysis

Data collected were analyzed using Epi info software (7.2.1 CDC Atlanta Georgia). The result was expressed in frequency tables, percentages, mean, standard deviation, bar and pie charts. Association between categorical data was analysed using X^2, with a p-value < 0.05 considered statistically significant.

4.6. Ethical Considerations

Ethical approval was obtained from the Research and Ethics Committee of the Alex Ekwueme Federal University Teaching Hospital Abakaliki.

5. Results

A total of 407 questionnaires were sent out and 380 were returned, giving a retrieval rate of 93%. The socio-demographics characteristics of the parturient are shown in Table 1. The mean age of the respondent was 29.6 ± 3.95. The age range of parturient was 15 - 40 years. The age range of 26 - 30 years had the highest rate of episiotomy at delivery (32.9%) and the least prevalence was among women that are older than 40 years. There was a direct correlation between the risk of having episiotomy during delivery and level of education, as majority of the respondents had tertiary education (37.4%), while women with no former education had the least prevalence of episiotomy. Women at Para 2-3 constituted majority of the respondents at a rate of 45.3% while 23.2% were primipara and 3.9% were grand-multiparous. Majority of the respondents were married with a prevalence of 76.8%, while 11.8% were unmarried. Majority of the respondents were Roman Catholic (44.2%), and there was no relationship between religion, level of education and risk of having episiotomy in labour.

Table 1. Socio demographic characteristics of respondent.

Age	Frequency	Percentage
15 - 20	35	9.2
21 - 25	65	17.1
26 - 30	125	32.9
31 - 35	81	21.3
36 - 40	45	11.8
>40	29	7.6
Marital status	**Frequency**	**Percentage**
Single	45	11.8
Married	292	76.8
Divorced	18	4.7
Widowed	25	6.6

Continued

Religion	Frequency	Percentage
Catholic	168	44.2
Pentecostal	85	22.4
Muslim	21	5.5
CMS	39	10.3
Protestant	42	11.1
Traditional	25	6.6
Total	380	100.0
Occupation	**Frequency**	**Percentage**
Trader	81	21.3
Farmer	47	12.4
Civil servant	100	26.3
Hair dressing	23	6.1
Seamstress	35	9.2
House wife	50	13.2
Student	44	11.6
Total	380	100.0
Parity	**Frequency**	**Percentage**
0 - 1	88	23.2
2 - 3	172	45.3
4 - 5	105	27.6
>5	15	3.9
Educational status	**Frequency**	**Percentage**
None	37	9.7
Primary	66	17.4
Secondary	135	35.5
Tertiary	142	37.4
Total	380	100.0

According to Table 2 is a major predictor of episiotomy with p-Value = 0.00654. Episiotomy was administered to 64.5% of women who were primigravida, and 10.5% of our respondents were P1, 17.1% of the respondents were P2, and 5.2% of women were P3 when they had episiotomy. The risk of having episiotomy for respondents who were P4 and above was lowest. Foetal macrosomia and tight perineum were another strong predictors for episiotomy among our respondents, as shown in Figure 1. While assisted breech delivery and instrumental deliveries were moderate predictors, at the rate of 14.7% and 12.9% respectively. Foetal distress; and other indications, were the least common reasons why episiotomies were given at delivery (7.9% and 1.3% respectively).

Table 2. Relationship between parity and risk of episiotomy.

Parity	Frequency	Percentage
O	245	64.5
1	40	10.5
2	65	17.1
3	20	5.2
4	10	2.6
5>	0	0

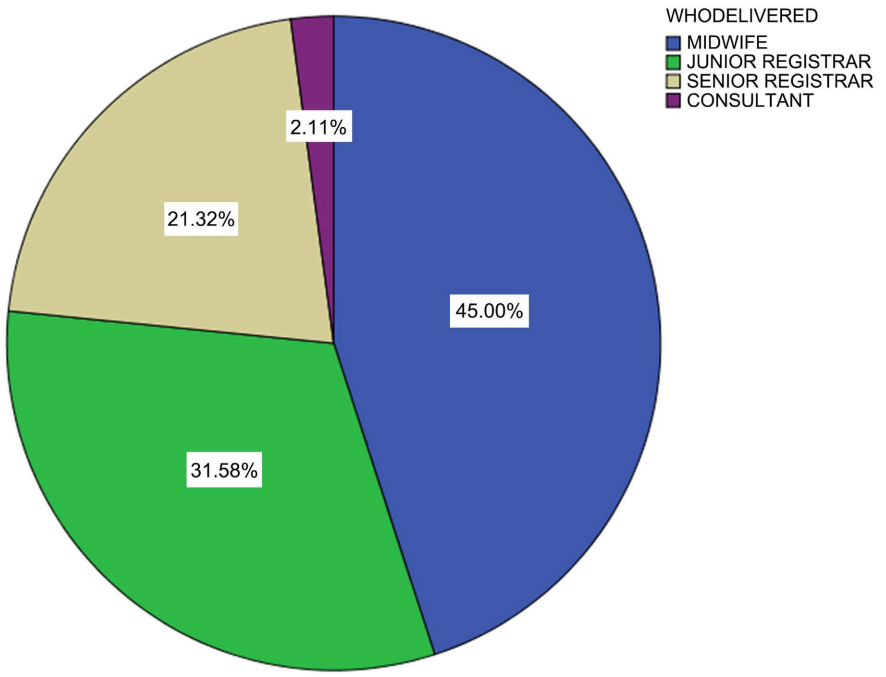

Figure 1. Rate of episiotomy based on the attendants at delivery.

Also, majority of the respondents (54.2%) were not given verbal or any form of consent, before performing episiotomy while in labour. As seen in **Figure 2**, Midwives took majority of deliveries at a rate of 45.0%, followed by junior registrar and senior registrars respectively. The remaining 2.1% of deliveries were taken by consultant. Furthermore, majority of our respondents (55.3%) had pain relief before the episiotomy and majority of the episiotomy were repaired by the registrars at the rate of 65.0% and least by House officers at the rate of 2.1%, as shown in **Figure 3**. **Figure 4** shows that majority of the respondents had their episiotomy repaired between 10 - 15 minutes at the rate of 40.3% while 10.5% of episiotomies were repaired between 50 - 60 minutes.

From **Figure 5**, pain was the most common complication of episiotomy according to our respondents, at a rate of 44.5%. Bleeding was reported in 17.6% while urinary retention was reported in 6.1% of our respondents. Perineal discomfort was noted at a rate of 5.5% and episiotomy site infection was 5.3%. Dis-

torted vulva anatomy, prolonged wound healing and wound breakdown were noted at rates of 5.0%, 4.7% and 4.2% respectively. Flatus and faecal incontinence were reported in 3.2% and 2.9% respectively. Constipation was reported as the least complication at the rate of 1.1%.

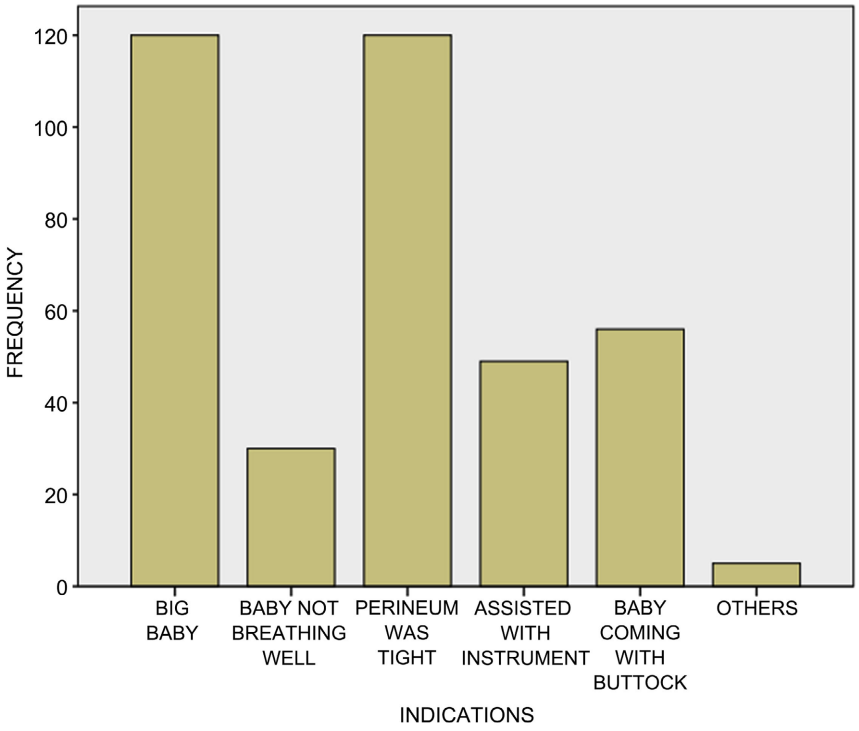

Figure 2. Different predictors for episiotomy.

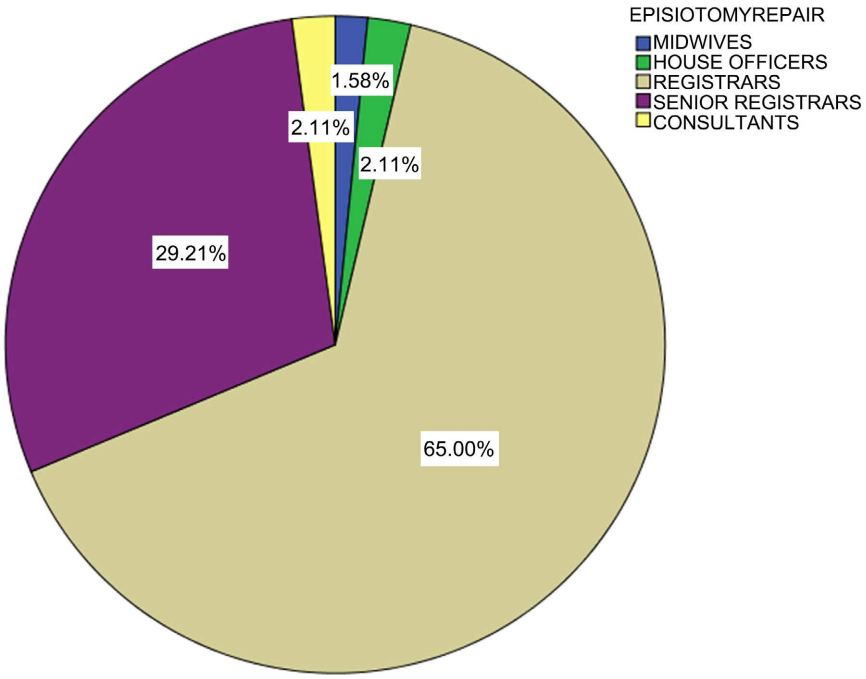

Figure 3. Cadre of health staff who repaired episiotomy.

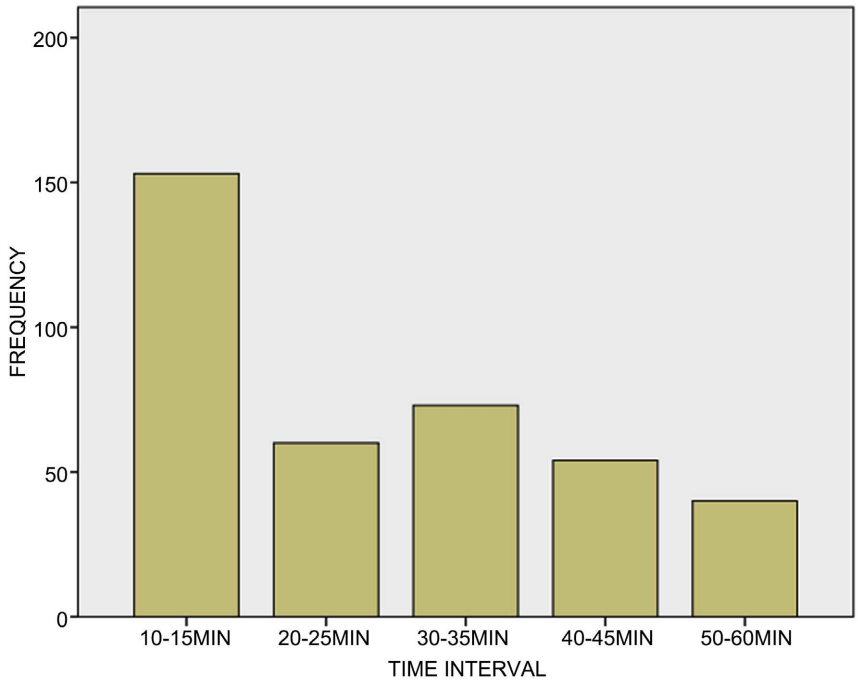

Figure 4. Delivery- repair intervals.

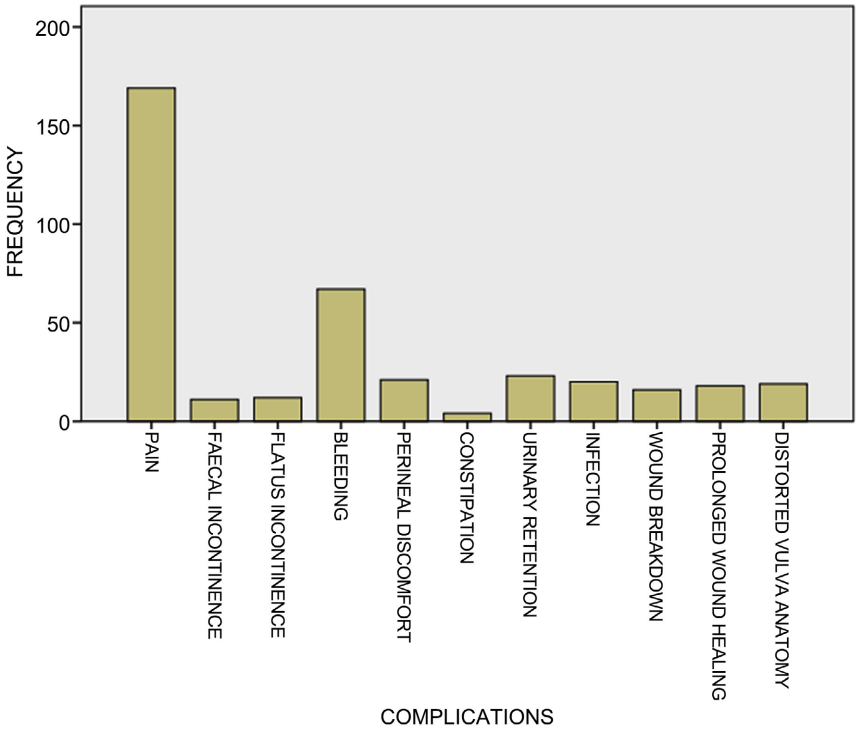

Figure 5. Complications associated with episiotomy.

From Table 3 depicts the post-episiotomy sexual dysfunctions among our respondents. About 31.3% of our respondents reported pain during sexual intercourse, while laxity of the vaginal canal was reported by 16.3% of our participants. Loss of sexual interest was noted among 13.9%, and 12.9% reported that

they no longer found sex enjoyable after episiotomy. During postpartum assessment, 73.4% of the respondents had their episiotomy site examined, while 26.6% never had their episiotomy site examined during their postnatal visit.

Table 3. Post-episiotomy sexual dysfunctions among respondents.

Type	Frequency	Percentage
Pain at intercourse	119	31.3
Laxity of vaginal canal	62	16.3
Psychological inhibitions due to anatomical distortions of introitus	46	12.1
Don't enjoy sex any longer	49	12.9
Loss of interest by my spouse	53	13.9
Others	51	13.4

6. Discussions

Majority of our respondents are in the age range of 26 - 30 years, and this could be explained by the fact that most of the respondents had completed tertiary education before starting childbirth, which probably delayed their reproductive career. Also, many of the educated respondent have read about episiotomy in the second stage on the net, and had the wrong impression that routine episiotomy will help reduce duration of the second stage and hasten their delivery process. "Cut me, so that my baby can come", is a common saying among some of our educated parturients. This finding was similar to what was reported by Nyengidiki *et al.* in which respondents between the ages of 31 - 35 years [5] has the highest prevalence. However, study by Alanyande *et al.* noted that increased rate of episiotomy among Adolescents at a rate of 74% was due to their tenser musculature than adult women [2].

The study showed that primigravidae is a major predictor of episiotomy, as 64.5% of parturient had episiotomy in their first confinement. This could be explained by the fact that episiotomy is given due to rigid or tight perineum, which was noted as some of the commonest indications for episiotomy in this study at a rate of 31.6%. This was similar to what was reported by Alayande, *et al.* in which 62.2% of episiotomies were seen among primiparous women and none was reported among grand-multiparous women [2]. Also, in a study done by Enyindah, *et al.* in port-Harcourt, Nigeria, 77.1% prevalence of episiotomy was reported among primigravidae and 9.7% among grand-multiparous women [12]. However, routine episiotomy to prevent third degree perineal tear was the reason for the high rate of episiotomy among primigravidae in Port-Harcourt [12].

Furthermore, this study showed that foetal macrosomia and tight or rigid perineum were also strong predictors of episiotomy. These findings were similar to the findings in a study done by Abubakar, *et al.*, who reported that foetal macrosomia was the commonest indication for episiotomy (62.5%) [7]. Also, in

a study by Izuka, *et al.*, it was noted that higher gestational age at delivery and birth weight are significant factors that increased the risk of episiotomy among primigravida. Because foetal weight increases with gestational age, larger weight of new born may increase the perceived threat of perineal tear [8]. However, Owa *et al.* [1] and Alayande, *et al.* [2] reported that instrumental delivery and assisted breech deliveries were timed-honoured indication for episiotomy, which has remained unchanged in many countries. Owa *et al.* also noted that birth weight is not a significant risk factor for episiotomy [1]. We also noted that most of the macrosomic babies (90%) were delivered by women who were multiparous, and this was also similar to what was reported by Otoide, *et al.* at UBTH, Nigeria [10].

The chances of having an episiotomy had been linked to the attendant at delivery and the institutions where delivery is being conducted [16]. Majority of our respondents were delivered by the midwives at a rate of 32.6%, and episiotomies were performed on many of them. However, majority of the episiotomy repairs were done by doctors, and complications after the repair were minimal. This was similar to what was reported by Nyengidiki, *et al.* who reported that more than half of the deliveries were conducted by the midwives, and episiotomies were routinely given in the process [5]. This can be attributed to the fact that the midwives are not involved in the repair of the episiotomies after being given it. Hence the liberty in given episiotomies during deliveries conducted by the midwives as against those conducted by Doctors [12]. However, Owa *et al.* reported that episiotomies were more common when deliveries were conducted by doctor [1]. Also Onah *et al.* reported that most episiotomies were given by doctors [17]. The reasons given by these two studies were that all the instrumental deliveries and most assisted breech deliveries (67%) were taken by the doctors, in which episiotomies were needed to ensure there are enough space to perform the required manoeuvres.

Informed consent is required prior to any clinical or surgical procedure. This requirement should be met before any such procedure is performed [18]. Majority of our participants were not counselled before performing episiotomy (54.2%). This was similar to the findings in a study done by Abubakar, *et al.* in which 66.1% of women were not counselled and only 19.6% had prior counselling before episiotomy [7]. Also, similar findings were noted in a study by Inyang, *et al.* where 61.5% [19] of the women studied were not counselled and 35.2% were counselled prior to the procedure. This finding was disturbing, because this type of practice does not recognize that episiotomy is essentially a surgical procedure. Findings in this study showed that 55.3% of the respondents had pain relief before the episiotomy while 44.7% of the respondents did not. This supported the fact that episiotomy which is essentially a surgical procedure requires adherence to basic surgical principles, adequate anaesthesia must precede the procedure [19]. The findings were similar to the reports from other studies [18] [20].

The study showed that majority of the episiotomies were repaired by Regis-

trars at a rate of 65.0%. This could support the reduced rate of complications, except for postoperative pain noted in the study. Unlike the study by Inyang Etoh *et al.* and Nyengidi *et al.* where house officers and interns carried out most of the repairs [5] [18], and this was associated with an increased rate of complications reported in their respective studies.

It seems reasonable for episiotomy to be repaired immediately. However, a short interval of time may be needed to get the patient ready. This should ideally not exceed fifteen minutes [18]. Any further delay may be unreasonable, as the risk of bleeding, wound contamination and infection increases with prolonged delivery-repair interval [18]. Findings in our study showed that majority of the episiotomy was repaired between 10 - 15 minutes, at a rate of 40.3% and 10.5% of our parturients had episiotomy repair done between 50 - 60 minutes after delivery. This would have been the reason why reduced rate of bleeding, wound contamination and infections were noted in our study. This differs from what was reported in a study done by Inyang Etoh *et al.* were 97.1% and 38.6% of women had their repair within one hour and 15 minutes of delivery respectively. Also, Abubakar *et al.* noted that 69.6% of episiotomies were repaired within an hour of birth. And a study in Zaria reported a mean delivery-repair interval of 60.5 minutes, due largely to inadequate episiotomy repair packs in the centre [9].

Findings in our study showed that pain was the commonest complications of episiotomy at a rate of 44.5%. This could be supported by the fact that about 44.74% of the respondent did not receive anaesthesia before the procedure. This was similar to findings by Nyengidiki, *et al.*, where severe pain (44.1%) was noted as one of the commonest complications of episiotomy, because 68% of parturient were not given any form of anaesthesia before the procedure [5]. This was different from study by Inyang-Etoh, *et al.* in which they noticed perineal discomfort (29.5%) as the commonest complications of episiotomy, followed by perineal pain in 25.1% of patients [18]. This was attributed to inadequacy of anaesthesia, failure of postoperative analgesia or inappropriate surgical technique in their studies.

Other complications noted in our study includes bleeding (17.6%), urinary retention (6.1%), perineal discomfort (5.5%), episiotomy site infection (5.3%), distorted vulva anatomy (5.0%), prolonged wound healing (4.7%), wound breakdown (4.2%), flatus incontinence (3.2%), faecal incontinence (2.9%) and constipations (1.1%). In a study by Chigbu, *et al.* [21], extended episiotomy with third degree (2.2%) and fourth degree (0.5%) perineal tears were reported as part of complications of episiotomy, but none was seen in our study. Episiotomy was also noted to affect the sexual life of most of the respondents with dyspareunia as the commonest at the rate of 31.3%. This was similar to a study by Nyengidiki *et al.* where dyspareunia was commonest at a rate of 70% [5]. Also, Adama *et al.* reported dyspareunia and decreased sexual sensitivity as the most common sexual complications 3 months after episiotomy [22]. Other sexual complication noted in our study include; Laxity of vaginal canal (16.3%), loss of sexual interest by the spouse due to laxity of vaginal canal (13.9%), not enjoying sex any longer

(12.9%) and psychological inhibition due to anatomical distortions of introitus in 12.1%. similar sexual complications was noted in other studies. [5] [22] [23]. The need to practice restrictive episiotomy as advised by World Health Organization and other agencies, would help to reduce the increasing rate of episiotomy and its attendant complications [6].

One of the interventions to reduce or ameliorate some of the complications following episiotomy is by examination of episiotomy site during the postnatal visit. However it was noted in our study that 26.6% of the parturient did not have their episiotomy sites examined during follow up visit in postnatal clinic. There by missing the chances of counselling the parturient on the procedure and outcome, or correcting any existing defects. Similar finding was noted in a study by Nyengidiki *et al.* [5] were 37% of parturient never had their episiotomy site examined during the postnatal visit. There is need to ensure that all episiotomies are promptly repaired after delivery by a trained health care provider to avert complications. Recent guidelines opposed routine use of episiotomy, and going by this, episiotomy rate and incidence of accompany complications should drop [24].

7. Conclusion

Episiotomy has long and short term complications in affected women, both psychosexual and physical. Based on available evidence, restricted use of episiotomies should be encouraged by careful selection of parturients including primiparous patients. Encouraging antenatal perineal massage which has been proven to be beneficial in reducing the incidence of episiotomies should be advocated. There is also a need to improve the quality of care of patients, and ensure that patients that had episiotomy have their episiotomy site well examined during their postnatal clinic visit. Proper training of health workers on both the technique of administering and repairing episiotomy is important.

Limitation

This is a hospital based study, which may not be a good representation of what is happening in the community. Also, this study was carried out in our centre only, a larger study involving many centres will definitely provide a better picture of rigors women pass through during and after episiotomies are given and repaired in most resource constraint settings.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix 1. Informed Consent Form

Dear Madam,

We humbly seek your consent to participate in research which aims at detecting post episiotomy morbidities among parturients at Alex Ekwueme Federal University Teaching Hospital Abakaliki (AEFUTHA). Below is the description of the study and the implications of participating in the study.

Purpose of the study: The purpose of the study is to determine post episiotomy morbidities among parturients at AEFUTHA.

Selection of participants: Any woman who had an episiotomy during her previous confinement attending either the antenatal clinic or post natal clinic and willingly wish to participate in the study will be recruited into the study.

Study implementation procedure: Every participant will be asked questions on her age, parity, educational status, religion, occupation, marital status, who delivered the baby, if she was given episiotomy, the reason for the episiotomy, if she was informed about before it was given, if she was given injection prior to the episiotomy, who repaired the episiotomy, time interval between delivery and repairing of the episiotomy, any complications associated with the episiotomy both early and long term complications and if the episiotomy site was examined in her follow up visit in post natal clinic.

Risk and benefits: There will be no direct financial gain or risks to the participants. However the factors leading to complications of episiotomy will be highlighted and help forestall such complications to other women by addressing the factors.

Confidentiality: Any information obtained from you in the course of this research will be treated with utmost secrecy. No other person except the researcher will know anything about your personal identity, phone number or address.

This study has been approved by the Research and Ethics Committee of FETHA. Any inquiries as regards this may be referred to the Chairman of Ethics Committee Prof OUJ Umeora of the department of Obstetrics and Gynaecology FETHA or through his email address: ouj@yahoo.com

Signature/ thumbprint: Your signature or thumbprint will be taken as an indication of your willingness to participate in the study. A copy of this consent form will be provided for you.

Declaration: I have read the above statement and have been able to ask questions and express concerns which have been satisfactorily responded to by the investigator. The purpose of the study, the benefits and potential risks has been explained to me. I hereby give my informed free consent to participate in the study.

Date ----------

---------- ---------- ----------

Participant Investigator Witness

Appendix 2

QUESTIONNAIRE ON POST-EPISIOTOMY MORBIDITY AMONG

PARTURIENT AT ALEX EKWUEME FEDERAL UNIVERSITY TEACHING HOSPITAL ABAKALIKI.

1) Age: 15 - 20 ( ) 21 - 25 ( ) 26 - 30 ( ) 31 - 35 ( ) 36 - 40 ( ) >40 ( )

2) Educational status: None ( ) primary ( ) secondary ( ) Tertiary ( ).

3) Parity: 0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) >5 ( )

4) Marital status: single ( ) married ( ) divorced ( ) widowed ( ).

5) Religion: Roman Catholic Church ( ) Pentecostal church ( ) Moslem ( ) CMS ( ) Protestant ( ) Traditional ( ).

6) Occupation: Trader ( ) Farmer ( ) civil servant ( ) Seamstress ( ) House wife ( ) Student ( )

7) Who delivered your baby: Midwife ( ) Registrar ( ) Senior Registrar ( ) Consultant ( ).

8) where you given episiotomy: Yes ( ) No ( )

9) If answer to question 8 is yes, what was the reason: Big baby ( ), perineum was tight not allowing baby delivery ( ), was assisted with an instrument to deliver my baby ( ), baby was coming with the buttock and had to be assisted to affect delivery ( ). Specify others ----------

10) Where you informed of episiotomy at early onset of labour: Yes ( ) No ( ).

11) If yes to question 10, did you give consent for episiotomy to be given during delivery: Yes ( ) No ( )

12) Any injection of drug at the site for pain relief before given: Yes ( ) No ( )

13) Who repaired the episiotomy: midwife ( ) House Officer ( ) Registrar ( ) Senior Registrar ( ) Consultant ( ).

14) What was the time interval between delivery and repairing: 10 - 15 mins ( ) 20 - 25 mins ( ) 30 - 35 mins ( ) 40 - 45 mins ( ) 50 - 60 mins ( ).

15) Was there any complication: pain ( ) bleeding ( ) perineal discomfort ( ) constipation ( ) urinary retention ( ) infection ( ) wound break down ( ) delayed wound healing ( ) distorted vulva anatomy ( ) faecal incontinence ( ) flatus incontinence( )

16) Have you resumed sexual intercourse: Yes ( ) No ( )

17) If yes to question 16, any complications noticed: Pain at intercourse ( ) laxity of vaginal canal ( ) psychological inhibitions due to Anatomical distortions of introitus ( ).

18) If no to question 16, why: loss of interest by my spouse ( ) don't enjoy sex any longer ( ) specify others ----------

19) Was the episiotomy site examined during the post natal visit: Yes ( ) No ( )