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Original Research Article

Are obstetrics and gynaecology residents able to repair third and fourth degree perineal tears? : An annonymous survey in a teaching hospital in north central Nigeria

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Abstract

Introduction: Third and fourth degree perineal tears sustained during the process of childbirth can be a life changing event; recognition of such tears and the skills to repair them should therefore be imparted during the training of residents in Obstetrics and Gynaecology. This survey sought to evaluate the training experiences of resident doctors in a teaching hospital in North Central Nigeria with regard to recognition and repair of third and fourth degree perineal tears.

Methodology: A structured pretested questionnaire was administered to 44 residents in the Department of Obstetrics and Gynaecology. The cadre of residents and experience in the repair of third and fourth degree perineal tears were evaluated.

Results: A total of 39 residents completed the questionnaires out of a total of 44 residents in the department giving a response rate of 89%. Eighty-two percent of the residents were males while 18% were females. More than a third (35.9%) of the residents felt they did not have sufficient proficiency in the repair of third and fourth degree perineal tears. Fifteen (38.5%) residents had never repaired either a third or fourth degree perineal tear while 15% of the residents had repaired at least 1 perineal tear.

92% felt they required more supervision/ training in the repair of third and fourth degree perineal tears.

Conclusion: A majority of the residents surveyed have not received adequate exposure and tutelage in the repair of third and fourth degree perineal tears in the course of their training in Obstetrics and Gynaecology.

Keywords: Resident doctors, Obstetrics and Gynaecology. Third and fourth degree perineal tears

1.Introduction

Injury to the anal sphincters during childbirth are serious morbidities that not only have effects on the physical well-being of a parturient but also cause profound psychological effects as well.[1,2] Its incidence in Western populations is reported to be 0.4%-2.5% during vaginal deliveries when mediolateral episiotomies are performed and 19% with midline episiotomies.[1,2] In Nigeria, its incidence has been reported to be 1.8%.[3] If left untreated, third and fourth degree perineal tears can lead to persistent perineal pain, faecal incontinence as well as sexual and urinary dysfunction.[4]

Childbirth is the singular time in a woman's life when the pelvic floor structures are most vulnerable to damage[5] and even though endo-anal ultrasonography has greatly enhanced the understanding of the anal sphincters during obstetric trauma[6]; such technology is unavailable in most facilities in Nigeria. The Nigerian obstetrician therefore has to rely on his clinical acumen to make the diagnosis and identify the anatomical damage.

Studies have however shown that the knowledge of obstetricians and gynaecologists is deficient with regard to repair of anal sphincteric injuries and the training given to residents in obstetrics and gynaecology is often insufficient.[7,8] This is against a background of generally poor exposure of obstetrics and gynaecology residents to vaginal procedures.[9]

This research aims to evaluate the experience of and training of residents in obstetrics and Gynaecology in the identification and repair of third and fourth degree perineal tears that occur during vaginal delivery.

2. Materials and Methods

This was a descriptive cross sectional study carried out in the Jos University Teaching Hospital, a tertiary hospital situated in Jos, Plateau in the north central region of Nigeria. It is a referral center that serves the neighboring states of Benue, Nassarawa, Bauchi, Gombe as well as the host state, Plateau State. The institution trains specialists in the field of obstetrics and gynaecology. The study population consisted of all residents in the Department of Obstetrics and Gynaecology. The study took place between January and March 2015.

A structured self-administered pretested questionnaire was used to collect data on the gender of the residents, their years of training, cadre, number of third and fourth degree tear repairs observed and performed and perceived proficiency where repairs were done. Questionnaires were given to all the 44 residents in the department and 39 were filled and returned for analysis giving a response rate of 89%. The data generated was entered and analyzed using EPI INFO software version 3.5.4. Frequency tables and percentages were used to present the data. Chi square test was used to determine the association between categorical variables. A 95% confidence interval was used in this study and a p value ≤ 0.05 was considered as statistically significant.

3. Results

We received 39 questionnaires out of the 44 sent out (89%). These consisted of 16 registrars (1^{st}-3^{rd} year of residency) and 23 senior registrars (4^{th} and fifth year of residency). There were 32 (82%) male residents while 7 (18%) were females. The aggregates of the responses are shown in Table I. 42% registrars and 58% of the senior registrars) but yet as many as 46% of the registrars and 54% of the senior registrars felt they would be unable to recognize the muscles of the pelvic floor during a pelvic examination. About 60% of the residents surveyed did not feel they had received adequate supervision when managing patients with third and fourth degree perineal tears and 64% percent felt they required more theoretical and 91% desired more supervision and training in the repair of third and fourth degree perineal tears.

Table 1: Demographics of residents

Variable	Frequency (%) n= 39
Gender	
Female	7 (17.9)
Male	28 (71.8)
Missing data	4 (10.3)
Designation	
Registrar	16 (41.0)
Senior Registrar	23 (59.0)

Table 2: Knowledge and experience of repair of 3^{rd} and 4^{th} degree tears among obstetrics and gynaecology residents

Variable	Registrar (%)	Senior Registrar (%)	Total (%)	χ^2	Df	p-value
Distinguish between 3^{rd}& 4^{th} degree perineal tears clinically						
Yes	14 (93.3)	19 (86.4)	33(89.2)			
No	1 (6.7)	3 (13.6)	4 (10.8)			0.63*
Total	15 (40.5)	22 (59.5)	37 (100)			
Proficient in repair of 3^{rd}& 4^{th}degree perineal tears						
Yes	10 (62.5)	15 (65.2)	25 (64.1)			
No	6 (37.5)	8 (34.8)	14 (35.9)	0.03	1	0.86
Total	16 (41.0)	23 (59.0)	39 (100)			
Able to identify anal sphincters clinically during perineal tears repair						
Yes	16 (100)	15 (65.2)	31 (79.5)			0.01*ł
No	0 (0.0)	8 (34.8)	8 (20.5)			
Total	16 (41.0)	23 (59.0)	39 (100)			
Number of 3^{rd}& 4^{th} degree perineal tears repair observed						
None	2 (12.5)	2 (8.7)	4 (10.3)			
1-3	8 (50.0)	13 (56.5)	21 (53.8)			
4-7	5 (31.3)	5 (21.7)	10 (25.6)			0.85*
>7	1 (6.3)	3 (13.1)	4 (10.3)			
Total	16 (41.0)	23 (59.0)	39 (100)			
Number of 3^{rd}& 4^{th}degree perineal tears repair assisted						
None	5 (31.3)	2 (8.7)	7 (17.9)			
1-4	8 (50.0)	20 (87.0)	28 (71.8)			0.05*ł
>5	3 (18.7)	1 (4.3)	4 (10.3)			
Total	16 (41.0)	23 (59.0)	39 (100)			
Number of 3^{rd}& 4^{th} degree perineal tears repair performed						
None	8 (50.0)	7 (30.4)	15 (38.5)			
1-3	5 (31.3)	10 (43.5)	15 (38.5)	1.53	2	0.47
4-6	3 (18.7)	6 (26.1)	9 (23.0)			
Total	16 (41.0)	23 (59.0)	39 (100)			

*Fisher's Exact; ł Statistically significant relationship

4. Discussion

This study evaluated the experience of residents with respect to repair of third and fourth degree perineal tears as well as their perceptions of their training on the repair of perineal tears and their self-assessment of their proficiency in carrying out such repairs. A majority of the residents surveyed felt they had adequate knowledge of pelvic floor anatomy (42% registrars and 58% of the senior registrars) but yet as many as 46% of the registrars and 54% of the senior registrars felt they would be unable to recognize the muscles of the pelvic floor during a pelvic examination.

Even though as many as 60% of the senior registrars (15) and 40% (10) felt they were proficient in the repair of the third and fourth degree perineal tears, only 1 registrar and 3 senior registrars had repaired more than 7 of such perineal tears (Table I). Indeed a majority (54%) had only observed between 1-3 repairs being affected yet they perceived themselves able to distinguish clinically third and fourth degree perineal tears.

We are unable to identify any similar surveys among residents in Nigeria to compare our findings with but a similar study in Catalonia Spain albeit with a larger study population of 72 residents showed that as much as 70% (32) residents in Obstetrics and Gynaecology had repaired less than 10 third or fourth degree perineal tears with similar findings with respect to the residents desiring more theoretical training and supervision during the repair of third and fourth degree perineal tears.[8]

The devastating consequences of obstetric sphincteric injuries demand that when they do occur, resident doctors in obstetrics and Gynaecology should be able to call on the resources of specialists who themselves have been tutored specifically in detecting and carrying out such repairs. Perineal examination by an experienced person is said to double the rate of anal sphincter injury.[9]

The fact that residents in this study feel under supervised in such repairs points to the need for a structured assessment of the skills needed for the repair of perineal tears among residents to be introduced in the course of their residency training. Studies have however noted the deficiencies in the training of obstetricians and their trainees in the repair of sphincteric injuries which may be improved by workshops that provide hands on training. It is for this reason that the Royal College of Obstetricians and Gynaecologists recommends that sphincter repair be performed by appropriately trained obstetricians.[7,10]

A limitation of this study is recall bias that is typical of studies such as ours that rely on questionnaires to ascertain level of practice and proficiency. The small sample size also reduces the statistic power of the study and may limit its applicability in similar tertiary centers such as the one the residents surveyed work in. It is our belief however that the study represents the state of training with respect to repair of third and fourth degree perineal tears in this center in North Central Nigeria given that it surveyed nearly 90% of the residents in the department. Larger multicenter studies in the region may give a broader view of the level of proficiency of residents in this skill.

5. Conclusion

Our study shows that there is a need to improve the exposure of residents in Obstetrics and Gynaecology to the skills of repair obstetric sphincteric injuries possibly by designing a protocol and hands on skill acquisition workshops on models and better supervision by appropriately trained Obstetricians during repairs on parturients that sustain such injuries.

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