

ORIGINAL RESEARCH ARTICLE

Determinants of Referral Practices of Clients by Traditional Birth Attendants in Ilorin, Nigeria

Abodunrin OL¹ Akande TM² Musa IO² Aderibigbe SA²

¹Community Medicine Department, Ladoke Akintola University of Technology, Osogbo; ²Department of Epidemiology and Community Health, University of Ilorin, Ilorin.

*For Correspondence: Abodunrin OL. E-mail: drgbenga_2000@yahoo.com.

ABSTRACT

A sizeable number of deliveries still take place with the assistance of Traditional Birth Attendants in Nigeria. This study aims to determine the factors that determine the referral practices of the TBAs in Ilorin of high risk and complicated pregnancies. This descriptive study was conducted among all the 162 registered TBAs in Ilorin that were traceable using pre-tested semi-structured interviewer-administered questionnaire. About 90%, whose source of skill acquisition was by inheritance did not refer their clients appropriately compared with 48% of those whose source of skill acquisition was through formal training ($p < 0.05$). The more the numbers of trainings, the more appropriate the referral ($p < 0.05$). Having supervisory visit by qualified personnel is associated with appropriate referral practices ($p < 0.05$). Regular training and re-training of TBAs with routine monitoring and supportive supervision will promote prompt referral of high risk and complicated pregnancies and deliveries (*Afr. J. Reprod. Health* 2010; 14[2]:77-84).

RÉSUMÉ

Déterminants des pratiques d'orientation des clientes chez les accoucheuses traditionnelles à Ilorin, Nigéria. Bon nombre d'accouchements ont toujours lieu avec l'assistance des accoucheuses traditionnelles au Nigéria. Cette étude a pour but de d'établir les facteurs qui déterminent les pratiques d'orientation des patientes chez les ATs à Ilorin des grossesses à haut risque et compliqués. Cette étude prescriptive a été menée au sein de toutes les 162 SFTs qui sont à Ilorin qui ont été trouvée grâce au questionnaire semi-structuré et pré-testé qui a été administrée par l'enquêteur. A peu près 90% dont la source de l'acquisition des compétences étaient à travers l'héritage n'ont pas orienté leurs patientes comme il faut envers les spécialistes par rapport à 48% de celles dont la source de l'acquisition des compétences a été a travers une formation formelle ($p < 0,05$). Plus les nombres de formations plus les orientations vers les spécialistes par le personnel qualifié est lié aux pratiques d'orientations appropriées ($p < 0,05$). La formation régulière et la re-formation des SFTs avec la surveillance de routine et le contrôle de soutien vont encourager l'orientation rapide des grossesses et des accouchements à haut risque et compliquées (*Afr. J. Reprod. Health* 2010; 14[2]:77-84).

KEYWORDS: TBAs, referral practice, high risk pregnancies.

INTRODUCTION

Every day, at least 1,600 women die from the complications of pregnancy and childbirth globally¹ with majority, about 90%, of these deaths occurring in Asia and sub-Saharan Africa.^{1,2} On the average, maternal mortality is about 18 times in the developing world than in the developed world¹ In Nigeria, maternal mortality ratio (MMR) is between 700-800/100,000 live births.^{1,3,4} Having a skilled health personnel present at deliveries is one of the key interventions for reducing maternal and perinatal mortality and morbidity.¹ However, a sizeable number of deliveries take place outside health facilities without the assistance of a skilled birth attendant.⁵ Such deliveries are attended to by Traditional Birth Attendants (TBAs), relatives or nobody at all.⁵ Although, TBAs are not included among the skilled personnel because their training is narrow in scope and of a very short duration^{1,6}, they play a supportive role during uncomplicated labour especially in rural communities of developing countries. A large proportion of pregnant women are attended at childbirth by TBAs and in some countries up to 50% of pregnant women rely on the services of TBAs for antenatal care and delivery including the care of the new born.⁷

TBAs attend to a number of deliveries especially where modern health services are unavailable or inadequate⁸ as is the case in Nigeria in which the World Health Organization (WHO) has reported that 60-80% of all deliveries occur outside modern health facilities.⁸ Notwithstanding, in the light of meeting the fifth Millennium Development Goal, efforts are to provide skilled personnel at deliveries.⁹ But while still awaiting the ideal situation and goal, the services of TBAs may not be put aside totally. The services usually provided by TBAs range from Ante-Natal Care (ANC); child delivery; treatment of infertility; management of threatened abortion; circumcision of babies and also circumcision of the mothers during labour and child birth.¹⁰ Other maternal and child health services being provided by TBAs include mobilizing

for immunization and family planning. They also provide non-maternal and child health services such as treatment of common ailments.¹⁰

A number of community members especially in the rural areas patronize the services of the TBAs and this necessitated the training of the TBAs in order to secure the safety of the mother and the baby. The objective of training TBAs is to ensure that they have gained competence in information, certain skills and procedures necessary for the safety of the mother and the baby and most importantly recognizing high risk pregnancies and complications during labour and referring them promptly to the modern health facilities.^{10,11} The TBAs are expected to refer their clients to the nearest health facilities but preferably a government facility. The various primary, secondary and tertiary health facilities and also the private hospitals within the study area serve as referral centres.

It has been observed however that in spite of the training, there has not been significant improvement in the reduction of maternal mortality¹² due to delay in or non-referral of their clients appropriately. In a 6-year period (1997-2002) review of maternal mortality in the University of Ilorin Teaching Hospital, the MMR was found to be 825 per 100,000 live births¹³. This relatively high MMR for a teaching hospital in the North-central zone of Nigeria has been attributed to high number of unbooked patients and late referral of patients from referring centres among other external factors. However, the referrals from the TBA centres were not clearly distinguished from those from the peripheral modern health facilities. A study in Uganda by a World Bank Group¹⁴ gave an account of problems associated with referral practices of TBAs as transportation and distance between referral points; opposition and embarrassment faced from medical personnel at referral centres and rejection of referrals by the clients themselves or their relatives. Another factor was the TBAs' attitude that they can handle those cases that they were supposed to refer immediately. There

TBAs' Referral Practices in Ilorin

have also been reports that some TBAs felt referral of their clients was not important as they claimed they could manage complications in pregnancy including abnormal lie and presentation by simple manipulation and turning the baby or simply by "making some incantations"¹⁵. This made referral to the health facilities too late and sometimes at the time the pregnant women are unsalvageable.

Without an effective and efficient supervision and monitoring, the training of TBAs will not have achieved the desired impact in reducing maternal mortality. The willingness of the clients including their relatives to be referred is another factor as some might refuse referral and whatever is the outcome of the pregnancy care by the TBA would be accepted as divine^{16,17}. The value of the services of TBAs and their training is currently a topical issue. One major challenge to the realization of the MDG-5 by developing countries would be the poor referral practice by peripheral health-care facilities especially the TBAs unless adequate data are provided for appropriate decision making. The aim of this study therefore is to assess the factors that determine the referral practices of the Traditional Birth Attendants in Ilorin of high risk and complicated pregnancies.

MATERIALS AND METHODS

Study Location

This study was carried out in the three local governments that make up Ilorin the capital of Kwara state which is in the North Central zone of Nigeria. The three LGAs are Ilorin East, West and South with headquarters in Oke-oyi, Oja-oba and Fufu respectively. The local government areas included urban and rural communities with a total estimated population of 857,366 (Kwara state Planning Commission, Ilorin 2004).

There are 32 primary health facilities, 8 secondary health facilities, one teaching hospital, one specialist hospital, and several private hospitals. There are also traditional and herbal practitioners among which are Traditional Birth Attendants. The TBAs are expected to refer their clients to the nearest modern health care facility as mentioned above which serve as referral centres for the TBAs but preferably the public health facilities.

Study Population

This study was restricted to only the registered TBAs in the study area. This is because these were the TBAs that have received formal training from professionals and were recognized by the department of health at the local government and the state ministry of health. There were 212 registered TBAs identified in the register of the State Ministry of Health. They were then traced to their homes through the help of a focal person who is also a TBA. A total of 162 TBAs who were alive and still practicing were located and used for the study. Those that could not be traced were either dead, relocated from the study areas or no more practicing the art.

Study Design

This study was a descriptive survey conducted between March and April 2007 to assess their practice of referral of high risk and complicated pregnancies as well as various socio-demographic factors that determine their referral practice.

Data collecting Instrument and Method of Data Collection

The research instrument for this study was a pre-tested semi-structured interviewer - administered questionnaire with the help of 15 trained research assistants who were also health workers (Nurses, CHEWs, Health Information Officers, medical and nursing students). The instrument was pre-tested in Offa, Offa local government using 20 questionnaires. The town is about 45km from the study area.

Data were collected from the respondents in each of the local government at a different day. They were respectively conveyed to an agreed primary health centre in the respective LGA where data collection took place. This was done to facilitate the process of data collection rather than the researcher or the assistants locating the houses on individual basis. The TBAs' transportation was provided by the researcher and snacks were also served.

The questionnaire sought information such as socio-demographic characteristics, the actions the TBAs usually take when they encounter clients who have the high risk and complicated conditions already listed. Respondents who reported referring very high risk pregnancies they encountered (previous repeated miscarriage, previous still birth, multiple pregnancies, abnormal lie, bleeding in previous or current pregnancies) without tampering with them were considered to have appropriate and timely referral. Similarly, those who reported immediate referral of their clients who develop complications (prolonged labour, bleeding during labour, tiredness or loss of strength, seizures and retained placenta) in

TBAs' Referral Practices in Ilorin

the course management were also said to have appropriate and timely referral. Other actions such as delayed referral for any reason, wrong referral or non-referral of the clients were said to be inappropriate. Delayed referral indicates "not referring immediately any of such very high risk pregnancies or complicated labour and delivery as mentioned above". Wrong referrals are those made to any other place (including other TBAs) other than a modern health care facility.

Verbal informed consent was sought from each respondent before administration of the questionnaire.

Data Analysis

Data entry and analysis were done using the EPI-Info version 3.4.1 (2007) software package. Chi square test was used to determine statistical difference in various cross tabulated variables with level of significance pre-determined at p -value < 0.05 .

RESULTS

A total of 162 respondents were obtained and interviewed giving a response rate of 100%. The mean age was 46.3 ± 5.8 years. The female constituted 145 (89.5%) and majority were married 116 (71.6%) and of Islamic religion 149 (92.0%). Most of the respondents 104 (64.2%) had at least primary school education. The respondents were mainly part-time TBAs (85.8%) having other forms of livelihood such as hospital ward assistants (orderlies), trading, hair dressing, cloth tying and dyeing.

Overall, 34 (21.0%) of the respondents practiced appropriate and timely referral while 128 (79%) did not. Five out of seven representing 71.4% of the respondents in the age 20-29 year age group referred their clients appropriately compared to 8 out of 70 (11.4%) and 5 out of 42 (11.9%) respectively in the 40-49 and > 49 years age groups. The difference in the referral practice with regards to age group was statistically significant ($p = 0.0000$). More proportion of males, 7 out of 17 (41.2%) compared to females 27 out of 145 (18.6%) referred their clients appropriately but the difference was not significance ($p = 0.0529$). Among the singles, 50% referred their clients correctly whereas 84.5% and

69.4% of the married and separated / widowed respectively did not. With regards to educational status, the highest proportion that did not refer their clients appropriately was among those that have primary education 67 out of 75 (89.3%) followed by those with secondary education 16 out of 20 (80%) Table 1.

Most of the respondents whose source of skill acquisition was by mere inheritance, 53 out of 59 (89.8%) followed by those who got into the practice through self initiation usually delay or did not refer their clients whereas 12 out of 25 (48%) whose source of skill acquisition was through formal training had appropriate and timely referral of their clients. The highest proportion 26.7% who had their last formal training less than 5 years ago had appropriate referral of their clients although the difference was not statistically significant. With regards to re-trainings, respondents who have had more than one re-training constituted the group with the highest proportion 9 out of 13 (69.2%) of appropriate referral of their clients ($p = 0.0000$). Similarly, respondents who had ever had a supervisory visit by qualified personnel had a higher proportion 9 out of 20 (45%) of appropriate referral than those who have never had supervisory visit ($p = 0.0151$) Table 2.

DISCUSSION

The mean age in this study and the fact that they were mainly married which showed that experience of previous childbirth is a major influence in the profession are similar to other reports.²⁰ This is because most TBAs usually train their children who would eventually take up the profession when they might have died.¹⁸ This idea is also demonstrated in this study as more than one third of the respondents inherited the practice, however as much as 15% of the respondents got into the profession through formal organized training. This mode of entry (formal training) into TBA practice as found in this study is not a common phenomenon and no previous studies available reported similar incident.

Table 1. Respondents' socio-demographic data in relation to appropriateness of referral of clients.

Variables	Appropriate and Timely Referral Freq (%) n= 24	Delayed/Non-Referral Freq (%) n=128	Total	Statistical test
AGE GROUP (in years)				
20-29	5(71.4)	2(28.6)	7	$X^2 = 23.51$ df= 3 p=0.0000
30-39	16(37.2)	27(62.7)	43	
40-49	8(11.4)	62(88.6)	70	
>49	5(11.9)	37(88.1)	42	
SEX				
Male	7(41.2)	10(58.8)	17	$X^2 = 3.41$ df= 1 p=0.0529
Female	27(18.6)	118(81.4)	145	
MARITAL STATUS				
Single	5(50.0)	5(50.0)	10	$X^2 = 9.16$ df= 2 p=0.0103
Married	18(15.5)	98(84.5)	116	
Separated/Widowed	11(30.6)	25(69.4)	36	
RELIGION				
Islam	30(20.1)	119(79.9)	149	¶ $X^2 = 0.30$ df= 1 p=0.4749
Christianity	4(30.8)	9(69.2)	13	
EDUCATIONAL STATUS				
None				$X^2 = 11.35$ df= 3 p=0.0100
Primary	18(31.0)	40(69.0)	58	
Secondary	8(10.7)	67(89.3)	75	
Post-secondary	4(20.0)	16(80.0)	20	
TYPE OF TBA				
Part time	4(44.4)	5(55.6)	9	$X^2 = 0.14$ df= 1 p=0.5809
Full Time	28(20.1)	111(79.9)	139	
	6(26.1)	17(73.9)	23	
	34(21.0)	128(79.0)	162	

¶ = Yates Corrected

The vocation is more or less an apprenticeship kind of training. Generally, TBAs who are trained in formal organized instructions are those who are already practitioners but lack training by experts. Furthermore, one would think that the usual six weeks of organized formal training would be inadequate for those who have not had any previous practical experience.

The formal training as an initial mode of skill acquisition has also explained the rea-

son why almost two thirds of the respondents were educated in contrary to other studies where about two thirds were illiterates.¹⁹ This is because some people who had some education (secondary and even post-secondary) could have easily taken the opportunity of such training to be gainfully self-employed. For the same reason, this study also found a relatively high proportion of young people in the profession contrary to usual occurrences. TBAs are usually older women in the com-

Table 2. Respondents' training, experience and years of practice in relation to appropriateness of referral of clients.

Variable	Appropriate and Timely Referral Freq (%)	Delayed/Non-Referral Freq (%)	Total	Statistical test
Initial Source of Skill Acquisition				
Formal training	12(48.0)	13(52.0)	25	$\chi^2 = 20.27$ df= 3 p=0.0001
Apprenticeship	11(32.4)	23(67.6)	34	
Self Initiated	5(11.4)	39(88.6)	44	
Inherited	6(10.2)	53(89.8)	59	
Last Formal Training Received				
≥ 10 years ago	4(13.3)	26(86.7)	30	$\chi^2 = 1.66$ df= 2 p=0.4351
6-9 years ago	22(21.6)	80(78.4)	102	
≤ 5 years ago	8(26.7)	22(73.3)	30	
Number of Re-Trainings Received				
None	11(9.6)	103(90.4)	114	$\chi^2 = 34.71$ df= 3 p=0.0000
1	14(40.0)	21(60.0)	35	
≥ 1	9(69.2)	4(30.8)	13	
Duration of TBA Practice				
3-5 years	6(40.0)	9(60.0)	15	$\chi^2 = 3.71$ df= 2 p=0.1562
6-9 years	17(20.0)	68(80.0)	85	
≥ 10 years	11(17.7)	51(82.3)	62	
Ever Had Supervisory Visit				
No	25(17.6)	117(82.4)	142	$\chi^2 = 6.37$ df= 1 p=0.0151
Yes	9(45.0)	11(55.0)	20	
Distance from nearest Health Facility				
< 1km	14(19.4)	58(80.6)	72	$\chi^2 = 0.74$ df= 3 p=0.8638
1-5 km	8(22.9)	27(77.1)	35	
6-10 km	7(25.9)	20(74.1)	27	
> 10 km	5(17.9)	23(82.1)	28	
	34(21%)	128(79%)	162	

munity.

Previous studies^{20,21} have shown that the younger TBAs and those with higher educational level are more likely to refer clients with high risk and complicated pregnancies as was also found in this study. Being literate is an obvious determining factor for people in comprehending basic facts and acquiring knowledge which was reflected by the findings in this study. The better practice of appropriate referral among those with higher education can most likely be attributed to

better understanding of the instructions during trainings and a more positive perception of possible complications that might arise if referral was late.

Ironically, the male gender had higher proportion of appropriate referrals of their clients than their female counterpart as opposed to what would have been expected and has been reported.^{10,12,21} This is because one of the bases for many women embarking on the profession was experience at childbirth and that the women would have been

TBAs' Referral Practices in Ilorin

more compassionate on difficult deliveries. This conflict may however also be argued that because the women had experienced child-birth before (or will be), they were more daring than the men. This difference was however not statistically significant. As in previous studies^{12,16,17}, marital status was also found to be associated with the referral practice with the single TBAs having a best practice which may also be due to the fact that they are also likely to be younger and have a higher level of education than the married or widowed.

Training and re-training of TBAs is very vital to their referral practices.^{22,23} This study however showed poor practice of re-training of TBAs which ultimately affected their attitude towards referral of their clients. Due to their scope of training and limited skills⁶, frequent re-training is imperative in achieving the objective of reduction of maternal mortality through appropriate referral of high risk and complicated pregnancies. Although, the length of period in which the last formal training was received was not found to be associated with their practice of referral, the numbers of trainings received by the TBAs was associated. This was also reported in studies within and outside Nigeria.^{21,23} Delayed referrals of clients with high risk and complicated pregnancies usually result in rendering the modern health facilities handicapped as irreparable damage could have been done.

The fact that the TBAs who got involved into the profession through an organized formal training have the highest proportion of appropriate referral of their clients when compared with those who got involved through other means indicated that having skilled health workers right from the inception is essential. It was found out in this study that these groups of respondents were also younger and more educated, which probably explain the reason behind their positive actions. Education and young age of TBAs are known predictors of appropriate referral of clients.^{12,16,17}

TBAs that were supervised by qualified

health personnel or midwives in this study had better practice of referral as also reported by other studies.²⁴ Lower cadre of personnel in the health sector (especially the non-professionals) as in other sectors need close supervision and monitoring to ensure that their practices and actions are carried out as expected. The TBAs' training must be followed with frequent visit and adequate supervision so that there would be adherence to good practices including appropriate referral of their clients.

Distance of health facility was found not to be associated with prompt referral by the respondents as ordinarily would be expected. Proximity of health facilities to the community where the TBAs are based contributed to timely referral of their clients in Bangladesh.¹⁶ This showed that the practices of the TBAs themselves rather than availability or accessibility to referral centres were more important determinants of the referral practices of TBAs in this study.

In conclusion, this study have shown that age, marital status, educational status, initial source of skill acquisition, re-trainings and supervision of the respondents were statistically significant in prompt and appropriate referral of clients with high risk pregnancies. Young, unmarried TBAs with higher education have higher tendency to refer their clients promptly and appropriately.

It is recommended that regular training and re-training of TBAs with regular monitoring and supportive supervision be provided so as to promote prompt referral of high risk and complicated pregnancies and deliveries. Consideration may also be given to young, single and educated interested people in the community to be trained formally even if they have not had apprenticeship from older TBAs. But a further interventional research is suggested to determine and compare referral practices among TBAs and other primary care providers.

ACKNOWLEDGEMENT

The authors wish to acknowledge the assis-

TBAs' Referral Practices in Ilorin

tance of the Mrs Adeniran from the "women in health section" of the state ministry of health who served as the lead and focal person in searching for the TBAs in various communities. The invaluable efforts of the research assistants and Ezra who helped in data entry are also appreciated.

REFERENCES

1. World Health Organization. Life Time Risk of Maternal Deaths. Geneva: WHO, 2004.
2. Philip Gottlieb and Gunilla Lindmark. WHO Indicators for Evaluating Maternal Health Care Services, Applicability in Least Developed Countries: A Case Study from Eritrea. *Afr. J. Reprod. Health.* 2002; 6(2): 13 – 22.
3. Adetoro A. Adegoke, Taiwo O. Lawoyin, Martins O. Ogundeji, Ann M. Thomson. A community-based investigation of the avoidable factors of maternal mortality in Nigeria: the pilot experience. *Afr. Health Sci.* 2007; 7(3):176-181
4. National Planning Commission. Children's and Women's Rights in Nigeria: A Wake-up Call. Situation Assessment and Analysis 2001.
5. UNICEF. Overview of Maternal Mortality. Fact Sheet on Safe Motherhood: A Community Responsibility. 2001.
6. WHO. Making Pregnancy Safer – The Critical Role of Skilled Attendant: A Joint Statement by WHO, ICM and FIGO. Geneva. 2004.
7. Traditional Birth Attendants. available from <http://en.wikipedia.org/wiki/traditionalbirthattendants> accessed on 30th March, 2009
8. WHO. Fact Sheet on Safe Motherhood. Revised 2003. Number 134
9. The National Planning Commission, Federal Republic of Nigeria. Nigeria Millennium Development Goals, 2006 Report. 2007.
10. Neilson JP. Traditional Birth Attendant Training for Improving Health Behaviours and Pregnancy Outcomes. *Obst. Gynecol.* 2007; 110(5):1017-1018
11. Annelies Wilder – Smith. Current Status of Essential Obstetric Care Activities Internationally: A Literature Review. *Trop. Doct.* 2003; 33(3): 135 – 8.
12. Sibley LM, Sipe TA, Brown CM, Diallo MM, McNatt K, Habarta N. Traditional birth attendant training for improving health behaviours and pregnancy outcomes. Cochrane Database of Systematic Reviews. 2007, Issue 3.
13. Aboyeji AP, Ijaiya MA, Fawole AA. Maternal mortality in a Nigerian teaching hospital- a continuing tragedy. *Trop Doct* 2007; 37: 83-85
14. World Bank Group. Experience of the Iganga district in Uganda: Toolkit for reducing maternal mortality. World Bank Group 2007 available from <http://www.worldbank.org>
15. Granja A C, Machngo F, Bergstron S, Brabin B. Malaria Related Mortality in Urban Mozambique. *Annals Trop. Med. Parasitol.* 1998; 92: 257–63.
16. UNFPA Bangladesh. Context for Reproductive Health Programme in Bangladesh. Reproductive Health In Bangladesh. A Sectoral Rev. 1996; 34 – 70.
17. M.S. Khattab, M.Y. Khan, Y.M. Al-Khaldi, M.N. Al-Gamal. The need for traditional birth attendants (DAYAS) in Saudi Arabia. *East. Mediterranean Health J.* 2000; 6(1):13-24
18. Board in Global Health. Institute of Medicine. Reducing Maternal Mortality and Morbidity. "In" Improving Birth Outcomes: Meeting the Challenge in the Developing World. 2003. Available from <http://books.nap.edu/openbook.php> accessed on 16th June, 2007.
19. Creative Centre for Community Mobilization. Using a Sound Methodology to Change Attitudes and Behaviours Contributing to the Proliferation of HIV/AIDS in Malawi. Social Mobilization Campaign for AIDS Awareness. 1 – 9.
20. Tsui A O, Tsui W J, Haaga JG. Health Pregnancy and Childbearing. "In" Reproductive Health in Developing Countries: Expanding Dimension, Building Solutions. Washington. National Academy Press. *Natl. Acad. Sci.* 1997; 116 – 45.
21. John ME, Udoma EJ, Udoh MO, Ndebbio TJ, Idiong M S. Knowledge and Practice of Traditional Birth Attendants Concerning Risk Factors in Pregnancy, Labour and Puerperium. *Afr. J. Nursing Midwifery.* 2002; 4(1): 41 – 45.
22. Udo JJ, Anah MU, Ochigbo SO, Etuck IS, Ekanem AD. Neonatal Morbidity And Mortality In Calabar, Nigeria: A Hospital- Based Study. *Nig. J. Clin. Prac.* 2008; 11(3): 285-289
23. Edem J Udoma, Samuel M Itina, Asuquo D Ekanem, Margaret M Mboho Prevention of maternal mortality by training the birth attendants of church-based maternity homes in Akwa-Ibom State. *Tropical J. Obst. Gynaecol.* 2005; 22(2):180-183