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Original Article

Do women want disclosure of fetal gender during prenatal ultrasound scan?

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Abstract

Background/Objectives: It is possible that not all women would want the disclosure of fetal gender by the sonologist during a prenatal scan. The objectives of this study were to determine the proportion of women who do not want fetal gender disclosure at the time of prenatal ultrasonography and document their reasons.
Method: A cross-sectional survey of women that were 20 weeks or more pregnant that had prenatal ultrasound at a private health facility in January 2006. The sonologist asked each of the women during the procedure whether they wanted to know fetal sex or not. Those that consented had disclosure of fetal sex while those that declined gave their reasons, which were documented.
Results: Two hundred and one (201) women were studied within the study period. Most of the women (82%) were of the Hausa/Fulani ethnic group and were predominantly of the Islamic faith (90%). One hundred and ninety women (94.5%) consented to disclosure of fetal gender, while eleven (5.5%) declined. The main reason for not wanting to know fetal sex was: '*Satisfied with any one that comes*'.
Conclusion: Most of the pregnant women (94%) would want disclosure of fetal gender at prenatal ultrasound scan. Only 5.5% of the women would not want fetal sex disclosure because they were satisfied with whichever that was there. It is advisable for the sonologist to be discrete on what to say during the procedure especially as it relates to fetal sex so as not to hurt those that do not want disclosure.

Keywords: Disclosure, fetal gender, prenatal ultrasound

Résumé

Arrière-plan/objectifs: It est possible que les femmes ne sont pas tous les voudrait la divulgation du sexe du foetus par le sonologist au cours d'une analyse prénatale. Les objectifs de cette étude étaient déterminer la proportion de femmes qui ne veulent pas de divulgation du sexe du foetus à le temps d'échographie prénatale et documenter leurs raisons.
Méthode: Une étude transversale des femmes qui étaient 20 semaines ou plus enceinte qui avait échographie prénatale à un établissement de santé privés en janvier 2006. Le sonologist demandé chacune des femmes au cours de la procédure s'ils voulaient connaître le sexe du fœtus ou non. Ceux qui consenti eu divulgation du sexe du fœtus tandis que ceux qui ont diminué ont donné leurs raisons, qui ont été documentées.
Résultats: Deux cents et un (201) femmes ont été étudiées au cours de la période d'étude. Plupart des les femmes (82%) étaient du Hausa groupe ethnique Peuls et étaient principalement de la foi islamique (90%). Femmes d'un cent quatre-vingt-dix (94.5%) avaient consenti à divulgation du sexe du foetus pendant onze (5.5%) a refusé. La principale raison de ne voulant pas connaître le sexe du fœtus était: «*satisfait avec un quelconque qui vient*».
Conclusion: La plupart des femmes enceintes (94%) voudrait divulgation du sexe du foetus à échographie prénatale. 5.5% Seulement des femmes ne voudrais pas que sexe du fœtus divulgation parce qu'ils étaient satisfaits avec n'importe quel qui était là. Il est conseillé de pour le sonologist à être discret sur ce qu'il faut dire au cours de la procédure en particulier en ce qui concerne les sexe du fœtus donc à ne pas se blesser ceux qui ne veulent pas de divulgation.

Mots clés: Divulgation, échographie prénatale, foetal sexe

Introduction

The lifelike appearance of current fetal ultrasound images enables even the untrained to visualize a fetus with relative ease. Ultrasound can be used to determine fetal gender as early as the first trimester using the 3D imaging techniques.[1,2] With the commonly available real-time ultrasound, fetal sex can be determined with some degree of certainty as from the 16th week, and by the 20th week of gestation the accuracy is close to 97%.[3,4] What will limit determination of fetal gender at that gestation would be the experience of the sonologist, the quality of the machine, the amount of liquor present, the fetal presentation, and position.

The reasons for prenatal fetal sex determination vary from medical indications like sex-linked medical disorders to social reasons like what house to relocate and what wears to buy for the baby.[5,6] Studies elsewhere have shown that determination and disclosure of fetal gender to pregnant women may be associated with positive or negative parental attitude.[7,8] Also the fear of selective abortion and fetocide of an unwanted sex has led to restrictions or complete ban on prenatal fetal sex determination in some countries.[9,10] This certainly is not the experience in Nigeria for most of the reasons for seeking prenatal fetal gender are innocuous.[6,11] Even then, it is not likely that all women that come for prenatal ultrasound would want disclosure of fetal sex before delivery. For any given community, it would be appropriate for the sonologist or the sonographer to know that such a group of women exist and it might also help to know their reasons for not wanting to know fetal sex before delivery.

In an earlier publication, we had shown the reasons why some women would want to know fetal gender before delivery.[6] To complete the story, we sought to know from the same population why some may not want fetal sex disclosure. The objectives of this study, therefore, were to determine the proportion of pregnant women that would not want to know fetal sex at prenatal ultrasound scan and document their reasons.

Materials and Methods

This was a descriptive, cross-sectional study conducted at a private hospital (Karaye Hospital). The hospital offers ultrasound services and has a large clientele for obstetric ultrasonography drawn from pregnant women within Sokoto metropolis and its environs. There are three certified sonologists of comparable clinical competence at the center.

Consecutive pregnant women at 20 weeks or more gestation were recruited for the study in January 2006. These women were referred for prenatal scan by health care providers or from other hospitals for either a routine scan or for specific obstetric indications. Occasionally, a pregnant woman might come on self-referral for an obstetric scan. For the period of the study, each woman that fulfilled the inclusion criteria was asked by the sonologist during the scan if she wanted to know the sex of the fetus by providing a YES or NO response. Those willing to know fetal sex had disclosure if determined while those that declined had their wishes upheld and their reasons documented.

The ultrasound scan was performed with *Siemens Sonoline SL-1* machine using a transabdominal 5.0-MHz probe. Fetal gender was identified by the presence of the sonological features of external genitalia at the perineum. The female fetus was recognized by the two labial folds, which show as two oblong echogenic structures separated by an echo-free area. The male fetus was recognized by the presence of the scrotal sac as a rounded echogenic structure separated by an echogenic median raphe and the phallus as an echogenic cylindrical structure [Figure 1].

Other information obtained from the participating women included biosocial and demographic data (age, ethnic group, religion, occupational status, educational level, gravidity, and parity) and indications for the scan. The information obtained was entered into Statistical Package for Social Science 12.0 software for analysis. Simple frequency tables were generated for descriptive analysis of the total study population.

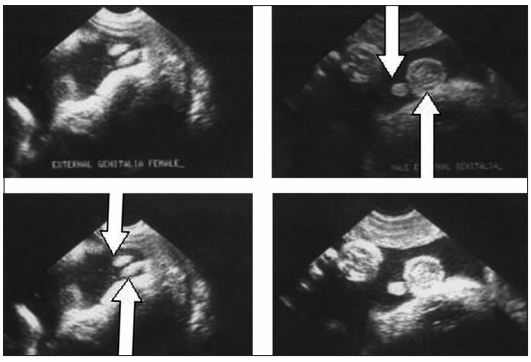

Figure 1: Sonographic appearance of external genitalia

Results

Two hundred and one (201) pregnant women fulfilled the criteria for inclusion. The age range was from 16 to 44 years with a mean age of 26 years. Majority of the women (82.6%) were of the Hausa/Fulani ethnic group. Others were Yoruba (7.5%), Ibo (4.5%), while the other ethnic minorities constituted 5.5% of the study population. Islam was the predominant religion (90.0%). Most of the study participants had no formal education (49.3%), while those with postsecondary education constituted 12.9%. Housewives constituted 90.5% of subjects studied, with civil servants and students constituting 6.5% and 3.0%, respectively. Primigravidae constituted 21.9% while 7% of the study population had had at least one previous miscarriage [Table 1].

Of the 201 women, 190 (94.5%) wanted to know the fetal sex while 11 (5.5%) declined. The descriptive analysis of the characteristics of the 11 pregnant women that do not want to know their fetal gender is as follows: Hausa/Fulani 8 (72.7%), Islamic religion 9 (81.8%), no formal education 5 (45.5%), housewives 9 (81.8%), and multigravidae 8 (72.7%). None of the women in this group has had a previous miscarriage.

The commonest reason offered for not wanting to know fetal sex was *'Satisfied with anyone'* – 5 (45.5%); *'Do not want to know'* – 2 (18.2%); *'Have both sexes already'* – 1 (9.1%); *'Prefers to know the sex after delivery'* – 1 (9.1%); *'Satisfied with God's choice'* – 1 (9.1%); and *'Personal reasons'* – 1 (9.1%) [Figure 2].

Table 1: Baseline profile of the women (*n* = 201)

Variable	Frequency	Percentage
Tribe		
Hausa/Fulani	166	82.6
Ibo	9	4.5
Yoruba	15	7.5
Others	11	5.5
Religion		
Islam	181	90.0
Christianity	20	10.0
Education		
None	99	49.3
Primary	25	12.4
Secondary	51	25.4
Tertiary	26	12.9
Occupation		
Civil servant	13	6.5
Housewife	182	90.5
Students	6	3.0
Gravidity		
Primigravidae	44	21.9
Multigravidae	157	78.1
Parity		
Nulliparous	48	23.9
Primiparous	35	17.4
Multiparous	87	43.3
Grandmultiparous	31	15.4
Previous miscarriage		
Yes	14	7.0
No	187	93.0

Discussion

Most of the women (95%) in this study wanted to know fetal gender at prenatal ultrasound. This percentage is higher than the 15% earlier reported from the same community[6] but comparable to the Boston study.[3] Whereas in the earlier study fetal sex seekers were defined as those women who requested fetal sex from the sonologist during the scan; in this present study, fetal sex seekers were those women that accepted to know fetal sex after the sonologist has asked the question. This present study also confirms the suggestions in the earlier work that some women might not have asked the sonologist for fetal sex because they did not know that fetal sex could be determined at ultrasound or that they were simply too shy to ask the question because of the concept of *'Kunya'*. 'Kunya' literally means shyness but it is a cultural manifestation of modesty and humility especially among the Hausa/Fulani women. More importantly, is the clear demonstration of the effect of methodology on the results of a study (in one study, the subjects were the ones that requested to know while in another it was the researchers that did the asking). The 95% found in this study is more likely to reflect the true wishes of the study population than the 15% that was earlier reported.

The reason for such a high percentage (95%) wanting to know fetal sex is difficult to explain especially that almost 49% of the study group was not literate. It is possible that some of the women agreed to know the fetal sex probably just to test the accuracy of the findings after delivery.

It is also probable that the 64–69% reported from some centers in Nigeria[11,12] that used questionnaire surveys to determine the percentage of women that would be interested in fetal sex could be higher if the methodology was by asking the women directly

Figure 2: Reasons for not wanting fetal gender disclosure (*n*=11)

at the time of the procedure as was done in this study. It means that in matters of this nature, there might be a difference between attitude and the real practice!

Only 5.5% of women in this study group declined the offer to know fetal gender. But then their wishes still had to be respected. This brings to fore the habit of running unsolicited commentary during the procedure of prenatal ultrasound especially if the commentary also includes fetal gender. Such would inevitably hurt the feelings of some women!

But should the sonologist wait to be asked by the woman before disclosing fetal gender or should the sonographer proactively ask the woman if she is interested in fetal sex, so as to know who to tell and who not to? Many would not subscribe to the proactive approach since it is of little or no clinical benefit. Some critics have gone further to argue that to routinely ask women such questions at ultrasonography might potentially create a gender-seeking obstetric-ultrasound population, which would put unnecessary pressure on the facility. Perhaps, a middle-of-the-course approach would be to disclose to only those that ask and simply indicate the fetal sex with a symbol (when it is determined) on the written report to the referring health care provider to cater for those that might be too shy to ask the sonologist.

Because of the very small number of women that did not want the disclosure of fetal sex, it was statistically difficult to meaningfully profile and characterize them. However, the most common reason for not wanting to know fetal sex was: '*Satisfied with anyone*'. Other reasons included: '*Prefers to know after delivery*' and '*Satisfied with God's choice*'. These reasons are similar to those reported by Shipp *et al*,[5] that also found 'wanting the surprise of birth', 'the joy of suspense at delivery' as reasons for not wanting to know fetal sex before delivery.

In conclusion, only about 6% of the study population declined to know fetal gender at ultrasound scan when asked by the sonologist. The main reason was that they were satisfied with whatever fetal gender that was present. There should be some discretion by the sonologist on what to say to the woman during prenatal ultrasound scan especially as it relates to fetal gender since not all women would like to know fetal sex before delivery.

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