

AN EVALUATION OF PREGNANT WOMEN'S KNOWLEDGE AND ATTITUDE TOWARDS MODES OF DELIVERY AT A TEACHING HOSPITAL, SOUTH-WEST, NIGERIA

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ABSTRACT

This study sets out to assess the knowledge and attitude of pregnant women at the booking clinic on the preferred mode of delivery. This was a cross-sectional descriptive study of 284 consenting pregnant women who presented for antenatal care booking between 1st November 2012 and 30th of June, 2014. They were interviewed through self-administered structured questionnaire for the literates, while the illiterate women had theirs administered by the research assistants. Data were entered, analyzed for descriptive and inferential statistics using SPSS 16 statistical package. The mean age of the respondents was 28.8 ± 5.1 years. About 64% of the participants had tertiary education and 62.3% (177) of the women were multipara. Overall, 85.6% of the women scored poor on knowledge about mode of delivery. Good knowledge score about mode of delivery was more among multigravidae. Positive attitude towards caesarean delivery was highest among women with previous history of miscarriages.

Largely, the level of knowledge about mode of delivery was low. High level of neutrality of attitude about mode of delivery indicates that health education needs to be improved in antenatal clinics so that women would be well informed and not to be misinformed.

KEYWORDS: Pregnant Women, Knowledge, Attitude and Mode of Delivery

INTRODUCTION

Cesarean section (CS) was introduced in clinical practice as a life-saving procedure both for the mother and the baby and is ranked the number one major surgical procedure performed in the industrialized world (Petrou et al 2001). Increasing rates of caesarean delivery is now a major public concern worldwide. CS rates above 15% have not shown additional benefit for the mother or the baby, and some studies have even shown that high CS rates could be linked to negative consequences in maternal and child health (Althabe and Belizán 2006; Betrán et al 2007; Althabe 2006; Ronsmans et al 2006; Belizan et al 2007; Villar et al 2005; Barros et al 2005 and Hall et al. 1999). Hence, in 1985, the World Health Organization (WHO) categorically stated that "There is no justification for any region to have CS rates higher than 10-15% (Ronsmans et al 2006). However, according to World Health Report (2010) in which CS rates were obtained for 137 countries from 192 United Nations member states of the world which represented 95% of global births in the year 2008, it was observed that there was an unequal distribution of this major medical intervention. It was recommended that CS utilization should be reduced in most developed countries while its accessibility should improve in low and some middle income countries, mainly most African countries, to reduce adverse maternal and perinatal outcomes (Klein-Fedyshin et al 2005; WHO Report 2010).

Some of the reasons suggested for the increasing CS rates include increasing mother's age at the first child, increasing birth weight, socioeconomic factors, reduced parity, improvements in surgical techniques, perceived relative safety of CS, falling threshold of clinicians for CS and increasing maternal request (Van Roosmalen et al 1995; Elferrink-stinkens et al 1995, Hemmink 1996; Oye-Adeniran 1998; Saropala and Suthutvorayut 1999; Deom et.al 1987; Chukset. al 2011).

Historically, vaginal delivery has always been perceived as safer than caesarean section and requests for elective caesarean section without any medical indication have usually been refused. However, this view is changing as advances in obstetric, surgical and anaesthetic techniques, the availability of blood and blood products, as well as antibiotic and thrombo-prophylaxis have made caesarean section much safer; for the average woman the difference in risk between a vaginal and caesarean delivery is very small. Labour and vaginal delivery has been shown to have more benefits for the average woman and her baby compared to pre-labour caesarean section – PLCS (Mary et al 2012 and Anjital et.al 2011). Studies have shown that even at term, PLCS babies are at increased risk of respiratory morbidity (respiratory distress syndrome, RDS, or transient tachypnoea of the newborn) compared to CS preceded by labour and this increases with decreasing gestational age.

Such babies were also more likely to require intermediate or intensive nursery care at admission and require greater respiratory support than neonates who underwent labor (Mary et al 2012). CS has been associated with an increased risk of neonatal asthma hospitalization, in particular in premature infants, which confers the respiratory advantages of labour to neonates. Furthermore, a number of epidemiological publications suggest that PLCS is related to higher chances of the child having type-1 diabetes or adolescent obesity compared to vaginal delivery, which may add substantially to poor population health. Also, it has been shown that maternal mortality and morbidity is 2-3 times and 5-7 times higher, respectively, in CS than vaginal delivery and CS is 2-3 times more expensive than vaginal delivery. It is then possible that the general public has shown increased acceptance of caesarean delivery without being aware of its adverse consequence (Chuks et.al 2011; Mary et al 2012 and Anjital et.al 2011).

However, despite the increasing CS rates, most women in developing countries are still averse to CS, which is perceived as a curse on an unfaithful woman and as the lot of the weak women (Hall et al 1999). Also, patients in Nigeria have aversion to the procedure for many socio-cultural reasons, among which is the feeling that caesarean section represents a form of failure of the woman's reproductive capability (Aboyeji 1997). Hence CS in Nigeria is viewed with suspicion, misconception, fear, guilt, misery and anger²³ and very few women in Nigeria would, therefore, accept the procedure even in the face of obvious clinical indications (Behaque 2002). This negative view and perception of CS by women in the developing countries has led to gross underutilization of the procedure compared to the large burden of Obstetric morbidity requiring resolution by CS (Okonofua 2001).

There are few data on knowledge and perceptions of women in Nigeria about CS but limited data on knowledge and perceptions of Nigerian women about vaginal delivery. Although it is important to determine patients' knowledge of CS, it is also important to access their knowledge, attitudes and beliefs about vaginal delivery. Therefore, this study aims at determining the knowledge and attitude of pregnant women in Ladoke Akintola University of Technology (LAUTECH) Teaching Hospital Ogbomosho, Nigeria in a bid to determine the factors that might affect the pregnant women's acceptance of a mode of delivery and refusal of the other and also help to define strategies for reducing caesarean delivery rates.

MATERIALS AND METHODS

This study was carried out at LAUTECH Teaching Hospital, Ogbomoso, South-west Nigeria. The study population was all 284 consented pregnant women who presented at the booking clinic (first antenatal clinic) for routine antenatal care between 1st November, 2012 and 30th June, 2013. It was a cross-sectional descriptive study.

The data collection instrument is a multi-item structured questionnaire consisting of 3 sections. Section A was used to determine socio-demographic characteristics of the women, section B sought relevant information about obstetric and gynaecological characteristics and section C consisted of closed-ended questions for evaluating knowledge and attitude of the women to either of the modes of delivery. For clarity, the questionnaire was pre-tested on pregnant women at the General Hospital, Ogbomoso, after which it was re-structured and ambiguous questions were re-phrased. The strength of the questionnaire was endorsed by 3 Obstetric Consultants in the Department. The questionnaire was self-administered by the literate women, while the illiterate women had theirs administered by the research assistants who read the questions to them and chose the answers based on their opinion. The exclusion criteria for the study were non-consenting pregnant women who presented for booking for their antenatal care.

The consent of the respondents was sought verbally during the health talk at the counseling sessions during the visits. The questionnaires were also introduced with a request for consent and freedom of participation was duly stressed to the women. The women that did not consent to participate in the study were in no way discriminated against with regards to medical treatment of their conditions. Also, approval for the study was obtained from LAUTECH Teaching Hospital ethics review committee.

The raw data from the field was screened for inconsistencies and duly edited. For the questions on knowledge assessment, correct answer was scored 1 while incorrect and don't know answers were scored 0 each. Overall, knowledge statements were scored as follows: Good knowledge 7-10; Intermediate knowledge 4-6 and Poor knowledge 0-3. The reliability of coefficient of the knowledge statement was 0.65 using the Kuder-Richardson test (Kuder and Richardson 1937). The attitude statements were scored on a 5-point Likert scale (5-1), from strongly agree to strongly disagree (Wuensch 2005). Final Attitude score was graded as: Positive 21-60; Neutral 13-20 and Negative 1-12. The Cronbach coefficient (Cronbach 1951) for attitude statement was 0.7. Analysis of data was by computer using SPSS (Statistical Package for Social Sciences) SPSS version 16 for Windows evaluation version. Data were presented using tables and graphs. Cross-tabulation of variables was performed and chi square was used to establish statistical association between variables. The level of statistical significance was set at $p < 0.05$.

RESULTS

The demographic characteristics of the participants were as shown in Table 1. The mean age of the respondents was 28.8 ± 5.1 years and age ranged between 17–44 years. Majority (86.9%) being between the ages of 21 and 35 years while 3.5% were between 15 and 20 years, 7.7% were between 36 and 40 years and the least proportion (1.8%) were between 41 and 45 years. Majority of the women (63.4%) had tertiary level of education while the least (2.1%) had no formal education. Most (89.4%) of the respondents were of Yoruba ethnicity, 4.9% were Ibo, 1.4% were Hausa and 4.2% were of other ethnic groups. About three-quarter 204 (71.8%) of the respondents were Christians while 27.8% were Muslims and only 0.4% belonged to other religions. About one-third of the women were unemployed (undergraduates - 20.8%, applicants - 4.6%, housewives - 2.1%).

Table 2 shows the obstetric performance of the participants. Majority (62.3%) of the women were multipara and 90.1% of the participants had no previous caesarean delivery. Of the women who had caesarean delivery, 7.7%, 1.8% and 0.4% had one, two and three caesarean deliveries respectively.

Figure 1 shows the knowledge scores of the participants about modes of delivery. Only 14.4% of the participants had good knowledge of the modes of delivery. Figure 2 revealed that most of the respondents had neutral attitude to Caesarean section (CS) (64%) and vaginal delivery (VD) (54%) and more respondents had negative attitude to CS (37%) than VD (3%). Also, only 0.4% of the respondents had positive attitude to CS as opposed to 45% with positive attitude to VD.

Table 3 compares the participant's knowledge with attitude to vaginal and caesarean delivery. Of those that scored good knowledge on the modes of delivery, 7.7% had positive attitude, 6.3% had neutral 0.4% had negative attitudes towards vaginal delivery while none had good, 8.1% had neutral and 6.3% had negative attitudes towards CS. Majority of those women with poor knowledge had neutral attitude towards VD (27.1%) and CS (33.5%). Age, parity, educational status, occupation, religion, previous miscarriage and previous vaginal delivery or caesarean section did not prove to determine the knowledge and attitude of the women to the modes of delivery as seen in Table 4.

DISCUSSIONS

There is some evidence that the information an individual has, to a significant extent, affects the attitude and perception of the individual, and on the modes of delivery, it may have a significant role in the willingness to consent to a procedure and refuse the other (Coulter et al 2008 and Mould et al 1996). Other previous studies have shown that patients who are knowledgeable about their conditions are able to actively participate in shared decision-making (Coulter et al 2008). The information women received were from diverse sources and may vary in their accuracy and reliability. Failure to ensure patients receive accurate information may result in inappropriate perception and attitude of some women leading to refusal of a CS or VD, which may be necessary to prevent both maternal and fetal morbidity and mortality.

In this study, it was discovered that the knowledge of most (85.6%) of the participants was low about the two modes of delivery as similarly discovered by Aali et al amongst the women in Kerman, Islamic Republic of Iran (Aali et al 2005 and Mungrue et al 2010), although Aziken M. et al 2007 found that the women attending maternity care at the University of Benin Teaching Hospital in Nigeria had good knowledge of CS and this may be due to cultural difference. This study also revealed that most of the respondents had neutral attitude to CS (64%) and VD (54%) and more respondents had negative attitude to CS (37%) than VD (3%) but only 0.4% of the respondents had positive attitude to CS as opposed to 45% with positive attitude to VD and this was associated with the perception of safety (maternal or fetal death), difficulty (complications to mother and baby) and pain. This finding was similar to the findings by Aboyeji et al 1997, Orji et al 2003 and Adeoye et al 2011 in which it was affirmed that a significant proportion of antenatal clients are averse to CS and that the negative cultural perception may have further reinforced this aversion. Also, Aziken M. et al 2007 found that only 6.1% of his studied population were willing to accept CS as a method of delivery, while 81% would accept CS if needed to save their lives and that of their babies but up to 12.1% of women would not accept CS under any circumstances, a decision that was also linked to culturally biased misconceptions about CS. Karlström A et al 2011 however, found that negative birth experience is related to a future preference for caesarean section and this should be considered by caregivers providing intrapartum care.

Also, in this study majority of the women with poor knowledge had neutral attitude towards VD (27.1%) and CS (33.5%) further establishing the indecision associated with lack of knowledge. However, age, parity, educational status, occupation, religion, previous miscarriage and previous vaginal delivery or caesarean section did not prove to determine the knowledge and attitude of the women to the modes of delivery. This is in contrast to the finding of Aali et al 2005 where Housewives had higher scores for vaginal delivery probably due to economic factor that more favour VD than CS, younger age group women in their study also had positive attitude to CS than older women possible reason deduced was families believes that young women have a small pelvis that is not proper for VD.

CONCLUSION AND RECOMMENDATIONS

This study further reinforced that it is imperative that information on CS and VD forms a component of a structured antenatal education programme such that pregnant women get first-hand information from the knowledgeable health care provider. Also, there is need for programmes to increase the understanding of women and the community about CS as a method of delivery in Ogbomoso, south western Nigeria.

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Table 1: Socio-Demographic Status of the Participants

Characteristic	Number (284)	Percentage (%)
Age group		
15-20	10	3.5
21-25	65	22.9
26-30	118	41.5
31-35	64	22.5
36-40	22	7.7
41-45	5	1.8
Religion		
Christians	204	71.8
Muslims	79	27.8
Others	1	0.4
Educational Status		
None	6	2.1
Primary/Arabic	11	3.9
Secondary	87	30.6
Tertiary	180	63.4
Occupation		
Business	85	34.9
Civil Servant	34	12.0
Artisan	29	10.2
Undergraduates	59	20.8
Professional	58	20.4
Applicant	13	4.6
Housewife	6	2.1
Ethnicity		
Yoruba	254	89.4
Ibo	14	4.9
Hausa	4	1.4
Others	12	4.2
Total	284	100.0

Table 2: Obstetric Performance of the Participants

Variable	Number (284)	Percentage (%)
Gravidity		
Primigravida	93	5.0
Multigravida	177	62.3
Grand multigravida	14	32.7
Miscarriage		
0	228	80.3
1	38	13.4
2	11	3.9
3	6	2.1
4	1	0.4
CS Delivery		
0	256	90.1
1	22	7.7
2	5	1.8
3	1	0.4

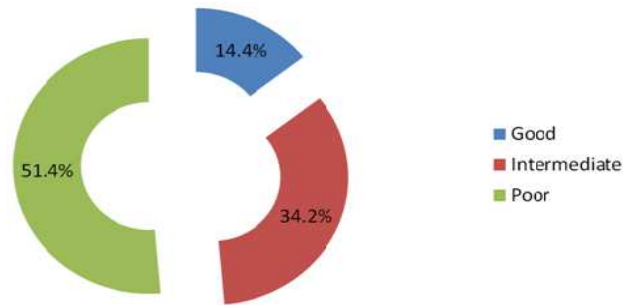


Figure 1: Knowledge Score about Mode of Delivery

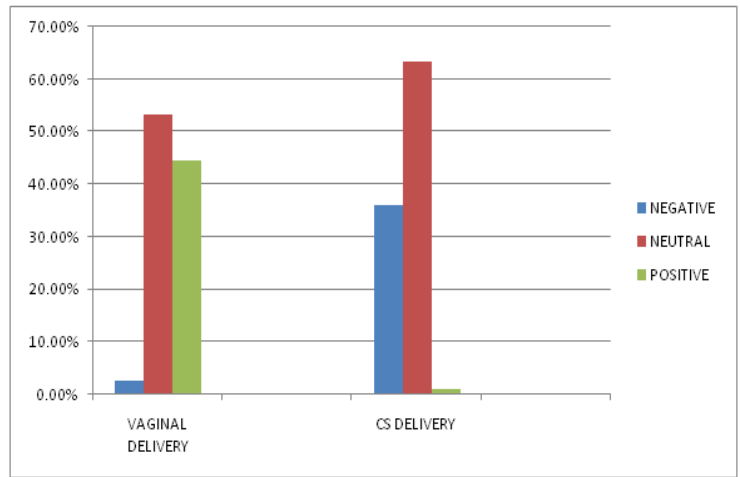


Figure 2: Attitude about Mode of Delivery

Table 3: Crosstabulation of Participants Knowledge Score with Attitude to Vaginal and CS Delivery

Knowledge Score	Attitude Towards Vaginal Delivery			Attitude Towards CS		
	Negative N (%)	Neutral N (%)	Positive N (%)	Negative N (%)	Neutral N (%)	Positive N (%)
Good	1 (0.4)	18 (6.3)	22 (7.7)	18 (6.3)	23 (8.1)	0
Intermediate	2 (0.7)	56 (9.7)	39 (13.7)	35 (12.3)	62 (21.8)	0
Poor	4 (1.4)	77 (27.1)	65 (22.9)	49 (17.3)	95 (33.5)	2 (0.7)

Anova test= 2.3, df=4, p value = 0.52 Anovatest = 3.3, df=4,p value = 0.68

Table 4: Crosstabulation of Participants' Character with Knowledge and Attitude Scores

Character	Knowledge Score			Attitude Score For Vaginal Delivery			Attitude Score For Caesarean Delivery		
	F	DF	P-Value	F	DF	P-Value	F	DF	P-Value
Age group	10.85	10	0.37	8.81	10	0.55	4.20	10	0.94
Parity	3.16	4	0.53	8.76	4	0.07	3.57	4	0.47
Educational status	8.68	6	0.19	4.65	6	0.60	2.36	6	0.88
Occupational status	21.53	14	0.08	22.10	14	0.08	9.98	14	0.76
Religion	1.72	4	0.79	1.69	4	0.80	2.80	4	0.60
Miscarriage	5.54	8	0.70	6.03	8	0.64	2.83	8	0.94
Previous vaginal delivery	10.7	16	0.83	13.1	16	0.66	13.6	16	0.63
Previous CS delivery	2.3	6	0.89	8	6	0.24	1.66	6	0.95

F= Anova test df= degree of freedom



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