Original Article

Upright or dorsal? childbirth positions among antenatal clinic attendees in Southwestern Nigeria

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ABSTRACT

Background: Upright childbirth positions are associated with better delivery outcomes. These positions such as kneeling and squatting were the norm for childbirth in indigenous Nigerian custom. However, westernization has largely replaced them with supine positions.

Objective: This study was conducted to compare the knowledge, attitude and experience regarding childbirth positions between antenatal clinic attendees in southwest and northwest Nigeria.

Materials and Methods: A mixed methods design was employed. Quantitative data were obtained using a structured questionnaire in Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife (*n* = 201) and Federal Medical Centre, Katsina (*n* = 104). Knowledge was graded as poor, fair or good whereas attitude toward each position was graded as favoured, indifferent or against. The resulting proportions were compared using Chi-square. Qualitative data were obtained through key-informant interviews.

Results: Knowledge of childbirth positions was generally poor. Overall, only to women (0.6%) had good knowledge, whereas 60 (19.7%) had fair knowledge and the rest (79.7%) had poor knowledge. More women in Katsina than Ile-Ife knew the squatting position (32.7% vs. 16.4%; $P < 0.001$) and favoured it (25.0% vs. 7.5%; $P < 0.001$), whereas more Ile-Ife women knew the lithotomy position (42.3% vs. 26.9%; $P = 0.01$). Attitudes towards the remaining positions were comparable between them. Key-informant interviews of the midwives revealed that they were trained to conduct delivery exclusively in the supine positions. They were, however, interested in learning the use of upright positions.

Conclusion: Knowledge about childbirth positions was very poor. Women in northwestern Nigeria were more aware and favorably disposed to childbirth in their customary squatting position. Training of Nigerian midwives on upright childbirth positions is recommended.

Key words: Childbirth position; knowledge; labour duration; practice; preference; Yoruba women.

Introduction

The position adopted for childbirth by a parturient in the second stage of labour has significant impact on delivery outcomes. Evidence from several studies including recent meta-analyses has shown that the upright positions such as standing, kneeling, sitting, squatting and under-water birth are associated with a shorter duration of the second stage of labour, less pain, lower rates of episiotomy and instrumental delivery, as well as better neonatal outcome, when compared with the supine positions such as dorsal and lithotomy.[1-3] However, the upright positions are also

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associated with more perineal tears and intrapartum blood loss, including significant postpartum haemorrhage than the supine positions; upright positions are currently the preferred choice for childbirth as recommended in various intrapartum care guidelines including those of NICE and RCOG.[4]

Interestingly, in many indigenous populations of the world, the upright position and its various modifications were customary for childbirth from ancient times.[5,6] Among the Yoruba people of southwestern Nigeria, for example, women traditionally delivered in the kneeling position. In fact, the Yoruba word for childbirth is '*ikunle*' which translates literally as 'kneeling'. The Yoruba exclamation '*ikunle abiyamo o!*' which literally translates as 'O the kneeling of the parturient' figuratively refers to the travails of a woman during childbirth. Similarly, '*ojo ikunle*' which literally means 'the day of kneeling', actually refers to the day of childbirth. It is also interesting to note that Yoruba girls and women normally kneel as a mark of respect when greeting their elders.[7,8]

In comparison, squatting occupies the equivalent position in the custom of the Hausa-Fulani people of northern Nigeria. In Hausa-Fulani culture, it is customary to adopt the squatting position during greeting, and, traditionally, Hausa-Fulani women gave birth in the squatting position. Home delivery was the norm, and this was usually supervised either by the matriarch of the household or by a traditional birth attendant.[9,10]

Over the years, however, the utilization of these indigenous childbirth positions has been substantially eroded by the dorsal and lithotomy positions of orthodox midwifery, fuelled by the massive promotion of hospital delivery as a means of reducing maternal mortality.[5] Typically, these hospital deliveries were supervised by healthcare personnel trained and skilled in conducting vaginal deliveries exclusively in the supine positions, with little or no allowance for the parturients' own desires or preferences.

The present consumer attitude study was, therefore, conducted to evaluate and compare a sample of antenatal clinic attendees of two tertiary healthcare institutions located in the semi-urban areas of southwestern and northwestern Nigeria, respectively, with respect to their knowledge, attitude and experience regarding the various childbirth positions. Key informant interviews of the labour room and antenatal clinic nurses/midwives were also undertaken.

Materials and Methods

This comparative cross-sectional study with a qualitative arm was conducted in the Antenatal Clinics of the Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Ile-Ife in southwestern Nigeria and the Federal Medical Centre, Katsina in northwestern Nigeria. Both institutions are Federal Government owned tertiary healthcare facilities which are located in semi-urban areas in Osun and Katsina States of Nigeria's southwest and northwest geopolitical zones, respectively.

Ile-Ife is an ancient town, which in Yoruba history, is regarded as the cradle of civilization and the spiritual and ancestral home of the Yoruba people. It lies on the geographical coordinates 7° 29' N and 4° 34' E and has a tropical climate, with a rainy season from April to October and a November to March dry season. It has a population of over 355,000 according to the 2006 census figures,[11] and the people are mainly farmers, artisans, civil servants and students, Ile-Ife being a university town.

Katsina located on coordinates 12° 59' N and 7° 36' E is the capital of the State. It is an ancient town with a heavy influence of Islamic civilization, and is home to the Hausa and Fulani tribes of northern Nigeria. Katsina has a semi-arid climate with rains between May and September, and a dry season from October to April. The population according to the 2006 census is over 318,000.[11] Katsina has a vibrant agricultural industry and is also an important commercial hub in the north.

The sample size for this study was calculated using the formula for comparing proportions.[12] Owing to the lack of published local data, it was assumed that 50% of antenatal clinic attendees in the study environments should have a favorable disposition toward the upright childbirth positions (an intelligent guess). The study was powered to detect a minimum difference of 20% between the two groups at 95% confidence level. Adding 10% for possible lost or incomplete data, a sample size of 105 women was obtained for each arm of the study. However, because OAUTHC is a two-arm hospital with an annual number of antenatal clinic attendees of approximately 3000, which was approximately double that of FMC Katsina, a ratio of 2:1 was adopted with 210 women studied in Ile-Ife and 105 in Katsina within the same timeframe.

The study instrument was a pretested, interviewer-administered questionnaire validated in the Yoruba, Hausa, and Fulani languages. It comprised five sections. Section one captured the sociodemographic characteristics and obstetric parameters of the participants, whereas section two evaluated the knowledge of the subjects regarding the various childbirth positions by asking women to appropriately answer 'yes', 'no' or 'don't know' to whether childbirth

was possible in each of nine listed recognized childbirth positions. The listed positions were (1) dorsal, (2) lithotomy, (3) semirecumbent, (4) sideways, (5) kneeling, (6) squatting, (7) sitting, (8) standing and (9) under water birth. Based on their responses, each woman's knowledge was graded as good if they answered yes to 7 or more positions, average if they answered yes to 4–6 positions, and poor if they answered yes to less than 4 positions.

The attitude of the respondents to each of the listed childbirth positions was determined in section three. Here, attitude was categorized into 'favour', 'indifferent' and 'against'. In section four the parous respondents experience was assessed by asking them to indicate the position(s) they adopted for pushing during their previous deliveries. Finally, section five explored the respondents' willingness to participate in a future randomized trial comparing childbirth positions.

The questionnaire was administered at the various antenatal clinics by research assistants trained in its use. All consecutive women attending the antenatal clinics at the different sites during this study were considered eligible. Only women who refused consent were excluded. Each participants participated only once. Data were collected concurrently over 4 consecutive weeks in all the study locations.

The completed questionnaires were collated and the data were entered into an electronic spreadsheet. Data were cleaned and analysis was performed using the Statistical Package for the Social Sciences version 17.0. Frequencies and proportions were generated for categorical data and these were compared using Chi-square, whereas means and standard deviations were generated for the continuous variables and compared using student's *t*-test. *P* value <0.05 was accepted as statistically significant.

The qualitative arm of this study comprised of 19 key informant interviews with the antenatal clinic and labour room nurse-midwives across the study centers. These interviews were conducted by the co-investigators in each centre based on the principle of saturation sampling. A standardized pre-tested interview guide was employed in interviewing successive informants until no new information emerged. The interview focused on the respondents' knowledge, attitude and experience with conducting delivery in the various childbirth positions, and what they perceived as the obstacles to the use of the various positions in their practice. Each interview was audio-recorded and lasted 20–35 minutes. Field notes were also taken and combined with the audio recordings to produce expanded notes (which included important verbatim quotes, themes and reflections) immediately after each interview. Coding was done after interviewing the 8th key informant, and a coding template was developed, which was then applied in the analysis of data from all the centres. A framework approach was used for the narratives, to facilitate the thematic analysis.

Results

A total of 341 women were counselled for participation in this study. Twenty-six of them refused to participate (17 in Ile-Ife and seven in Katsina), whereas 315 consented and were recruited (210 in Ile-Ife and 105 in Katsina). However, 9 questionnaires in Ile-Ife and 1 in Katsina were excluded from analysis due to incomplete data. The sociodemographic characteristics of respondents from the two regions were compared, as shown in Table 1. Expectedly, there were statistically significant differences between them in ethnicity and religion. In addition, the respondents in Katsina had a significantly higher mean parity and booked for antenatal care later than their Ile-Ife counterparts. However, both populations were comparable in age, marital and educational status, as well as the mean gestational age at the time of the study.

The comparison of the respondents' levels and sources of knowledge about childbirth positions is shown in Table 2. Clearly, knowledge was very poor in both populations, with 81.6% of respondents in Ile-Ife and 76% in Katsina unable to correctly identify up to 4 out of the 9 listed childbirth positions. In fact, only 2 (0.6%) of the total 305 women had good knowledge about childbirth positions. The difference in knowledge between the two populations was not statistically significant. Table 3 shows the detailed comparison of the respondents' knowledge about the individual childbirth positions on the list. While a significantly higher proportion of the Katsina women knew of the squatting position (32.7% vs. 16.4%; $P = 0.002$), a higher proportion of women in Ile-Ife knew about the lithotomy position for childbirth (42.3% vs. 26.9%; $P = 0.01$). Although the difference in knowledge about the sideways position attained statistical significance in the 2×3 table; when the 'no' and 'don't know' responses were merged, the difference was not statistically significant. In addition, respondents' poor knowledge of the remaining childbirth positions in the list was comparable in the two populations.

Table 4 shows the comparison of the respondents' attitudes towards each of the nine childbirth positions. In both study populations, the most favoured positions were dorsal and semi-recumbent. A statistically significant difference in attitude towards the squatting and semi-recumbent positions however existed between the two groups, with the northern

Table 1: A comparison of the sociodemographic characteristics of the two study populations

	Study population (*n* (%)*)		*P*
	OAUTHC Ile-Ife	FMC Katsina	
Variable	**(*n* = 201)**	**(*n* = 104)**	
Age (Mean ± SD years)	29.14±5.04	28.43±5.71	0.27
Parity (Mean ± SD)	1.05±1.17	2.03±2.13	<0.01
EGA at time of interview (Mean ± SD weeks)	31.10±6.50	31.48±7.15	0.66
EGA at booking (Mean ± SD weeks)	20.30±7.01	22.46±6.91	0.02
Number of visits since Booking (Mean ± SD)	4.21±2.28	3.48±3.35	0.28
Marital status			
Single	2 (1.0)	0 (0)	0.55
Married	199 (99.0)	104 (100.0)	
Tribe			
Hausa	2 (1.0)	68 (65.4)	<0.001
Ibo	11 (5.47)	21 (20.2)	
Yoruba	188 (93.5)	15 (14.4)	
Religion			
Christian	184 (91.5)	36 (34.6)	<0.001
Muslim	17 (8.5)	68 (65.4)	
Educational status			
No formal	0 (0)	1 (1.0)	
Primary	12 (6.0)	7 (6.7)	
Secondary	65 (32.3)	40 (38.5)	
Tertiary	124 (61.7)	56 (53.8)	0.30

*Figures in parenthesis are percentages of the total in the column; EGA - Estimated gestational age; SD - Standard deviation

Table 2: A comparison of the respondents' levels and sources of knowledge about childbirth positions

	Study population (*n* (%)*)			*P*
	OAUTHC Ile-Ife	FMC Katsina	Total	
	(*n*=201)	(*n*=104)	(*n*=305)	
Level of knowledge				
Good	2 (1.0)	0 (0.0)	2 (0.6)	
Average	35 (17.4)	25 (24.0)	60 (19.7)	
Poor	164 (81.6)	79 (76.0)	243 (79.7)	0.18
Sources of knowledge				
Antenatal clinic	95 (47.3)	29 (27.9)	124 (40.7)	0.01
Doctor	44 (21.9)	19 (18.3)	63 (20.7)	0.33
Nurse/Midwife	72 (35.8)	16 (15.4)	88 (28.9)	<0.01
TBA	9 (4.5)	4 (3.8)	13 (4.3)	0.33
Books	31 (15.4)	12 (11.5)	43 (14.1)	0.28
Newspaper	8 (4.0)	2 (1.9)	10 (3.3)	0.17
Radio	22 (10.9)	4 (3.8)	26 (8.5)	0.02
Television	33 (16.4)	4 (3.8)	37 (12.1)	0.002
Internet	4 (2.0)	3 (2.9)	7 (2.3)	0.82
Mother	49 (24.4)	14 (13.5)	63 (20.7)	0.03
Husband	3 (1.5)	3 (2.9)	6 (2.0)	0.21
Sister	28 (13.9)	2 (1.9)	30 (9.8)	<0.001
Aunt	12 (6.0)	2 (1.9)	14 (4.6)	0.09
Friend	28 (13.9)	13 (12.5)	41 (13.4)	0.42

*Figures in parenthesis are percentages of the total in the column; Good, knows 7-9 positions; Average, knows 4-6 positions; Poor, knows 0-3 positions; TBA - Traditional birth attendant

women being more favourably disposed to these positions than their southern counterparts. Attitudes regarding the remaining childbirth positions were comparable between the groups.

A comparison of the parous women's experiences regarding childbirth positions is presented in Table 5. While a significantly higher proportion of women in Katsina had experienced childbirth in the squatting position compared to their Ile-Ife counterparts, the reverse was the case regarding the lithotomy position and caesarean section, which were significantly higher among the Ile-Ife population. There was no difference between the two populations in any of the remaining childbirth positions.

Key informant interviews

All the interviewees were knowledgeable about the supine and some of the alternative positions for childbirth. However, most of them felt incapable of conducting delivery in anything other than the dorsal, lithotomy or semi-recumbent position. The major reason for this was the fact that these supine positions were the only positions on which they were trained in midwifery school to conduct delivery. In the words of an interviewee:

Table 3: A comparison of the respondents' knowledge about each of the childbirth positions

Position	Response	Study population *n* (%)*		*P*
		OAUTHC Ile-Ife	FMC Katsina	
		(*n*=201)	(*n*=104)	
Dorsal	Yes	161 (80.1)	89 (85.6)	
	No	22 (10.9)	9 (8.6)	
	Don't know	18 (9.0)	6 (5.8)	0.48
Lithotomy	Yes	85 (42.3)	28 (26.9)	
	No	77 (38.3)	57 (54.8)	
	Don't know	39 (19.4)	19 (18.3)	0.01
Semi-recumbent	Yes	85 (42.3)	56 (53.8)	
	No	69 (34.3)	34 (32.7)	
	Don't know	47 (23.4)	14 (13.5)	0.07
Sideways	Yes	17 (8.5)	8 (7.7)	
	No	138 (68.6)	85 (81.7)	
	Don't know	46 (22.9)	11 (10.6)	0.03**
Sitting	Yes	20 (10.0)	11 (10.6)	
	No	137 (68.1)	81 (77.9)	
	Don't know	44 (21.9)	12 (11.5)	0.09
Squatting	Yes	33 (16.4)	34 (32.7)	
	No	123 (61.2)	58 (55.8)	
	Don't know	45 (22.4)	12 (11.5)	0.002
Kneeling	Yes	47 (23.4)	24 (23.1)	
	No	109 (54.2)	63 (60.6)	
	Don't know	45 (22.4)	17 (16.3)	0.42
Standing	Yes	3 (1.5)	3 (2.9)	
	No	161 (80.1)	90 (86.5)	
	Don't know	37 (18.4)	11 (10.6)	0.15
Underwater	Yes	7 (3.5)	5 (4.8)	
	No	137 (68.2)	77 (74.0)	
	Don't know	57 (28.3)	22 (21.2)	0.36

*Figures in parenthesis are percentages of the total in the column; **Not significant in the 2×2 comparison of 'Yes' versus 'No/don't know' (P=0.82)

> *I was not taught to perform delivery in upright positions in midwifery school, and I've never witnessed delivery in such positions* (Labour Ward Midwife).

Interestingly, however, one of the interviewees reported having actually witnessed childbirth in the kneeling and squatting positions, but this was not in the hospital setting:

> *My mother was a popular Traditional Birth Attendant and I used to observe her taking deliveries when I was young. Interestingly, she was using the kneeling or squatting position for most of the deliveries* (Antenatal Clinic Midwife).

Other reasons cited by most interviewees included their impression that the supine positions were safer, more convenient for the accoucheur, and also afforded increased access and better control over the delivery process.

Most of the interviewees actually acknowledged that, owing to their own opinions and lack of experience, with the upright childbirth positions, they did not discuss these positions with the pregnant women during antenatal classes but rather taught the women only about the supine positions. All the interviewees, however, expressed interest in receiving further training in the use of alternative childbirth positions for the future benefit of their clients.

Discussion

The present study compared the knowledge, attitudes and experiences of childbirth positions between antenatal clinic attendees in southwestern and northwestern Nigeria, and found generally poor knowledge especially regarding the upright childbirth positions. Significantly more northwestern women knew, favoured and had experienced delivery in their customary squatting position, compared to the southwestern group. Interestingly, the southwestern women did not demonstrate better knowledge, attitude or experience regarding their own customary kneeling childbirth position. Instead, more southwestern women knew or had experienced the lithotomy position.

These findings are consistent with a trend of increasing westernization of the Nigerian custom, a phenomenon which is known to be far more advanced in the southwest than in the northern part of the country. According to Engelmann in 1882, 'The primitive woman not exposed to western culture would avoid the dorsal position as much as possible'.[13] Indeed, historically, the Yoruba women of southwest Nigeria delivered in the kneeling position, whereas the Hausa-Fulani women of northern Nigeria practiced squatting childbirth. The pattern revealed in the present study can, therefore, be largely attributed to westernization.

The use of the supine childbirth positions is believed to have originated from 16th Century Europe, following the incursion of the 'Barber-Surgeons' into the practice of midwifery, which gave birth to the field of operative obstetrics. It was further escalated by the introduction of forceps delivery in the 17th century and general anaesthesia in the 19th Century. No doubt the supine positions were quite well-suited for such 'complicated' deliveries because they clearly granted the accoucheur better access to the perineum, and afforded more control over the delivery process, when compared to the upright childbirth positions. It is, therefore, not surprising that the supine positions soon attained widespread use, even for uncomplicated vaginal deliveries to the point where they virtually became the hallmark of orthodox midwifery and obstetrics. The near globalization of this practice was also helped in no small measure by the recommendations of notable early physicians, such as Mauriceau in Europe and Dewees in America, that women should preferably be placed on their backs to deliver, for convenience and safety.[5]

Table 4: A comparison of the respondents' attitudes towards each of the childbirth positions

Position	Attitude	Study population *n* (%)		*P*
		OAUTHC Ile-Ife	FMC Katsina	
		(*n*=201)	(*n*=104)	
Dorsal	Favour	162 (80.6)	90 (86.5)	
	Indifferent	19 (9.5)	6 (5.8)	
	Against	20 (9.9)	8 (7.7)	0.41
Lithotomy	Favour	87 (43.3)	34 (32.7)	
	Indifferent	35 (17.4)	20 (19.2)	
	Against	79 (39.3)	50 (48.1)	0.19
Semi-recumbent	Favour	88 (43.8)	63 (60.6)	
	Indifferent	55 (27.4)	13 (12.5)	
	Against	58 (28.8)	28 (26.9)	0.005
Sideways	Favour	13 (6.5)	3 (2.9)	
	Indifferent	34 (16.9)	13 (12.5)	
	Against	154 (76.6)	88 (84.6)	0.21
Sitting	Favour	14 (7.0)	9 (8.7)	
	Indifferent	21 (10.4)	9 (8.6)	
	Against	166 (82.6)	86 (82.7)	0.79
Squatting	Favour	15 (7.5)	26 (25.0)	
	Indifferent	29 (14.4)	13 (12.5)	
	Against	157 (78.1)	65 (62.5)	<0.001
Kneeling	Favour	29 (14.4)	19 (18.3)	
	Indifferent	31 (15.4)	16 (15.4)	
	Against	141 (70.2)	69 (66.3)	0.68
Standing	Favour	2 (1.0)	3 (2.9)	
	Indifferent	19 (9.5)	7 (6.7)	
	Against	180 (89.5)	94 (90.4)	0.37
Underwater	Favour	4 (2.0)	1 (1.0)	
	Indifferent	22 (10.9)	5 (4.8)	
	Against	175 (87.1)	98 (94.2)	0.13

Table 5: A comparison of the parous respondents' experiences on childbirth positions

Position	Study population *n* (%)*		*P*
	OAUTHC Ile-Ife	FMC Katsina	
	(*n*=118)	(*n*=70)	
Dorsal	86 (72.9)	59 (84.3)	0.07
Lithotomy	13 (11.0)	1 (1.4)	0.03
Semi-recumbent	6 (5.1)	1 (1.4)	0.78
Sideways	1 (0.8)	-	-
Sitting	2 (1.7)	2 (2.9)	>0.99
Squatting	4 (3.4)	10 (14.3)	0.02
Kneeling	-	2 (2.9)	-
Standing	-	-	-
Underwater	-	-	-
Caesarean section	18 (15.3)	3 (4.3)	0.04

*Figures in parenthesis are percentages of the total in the column. However, the sum of the percentages in each column exceeds 100% because some of the patients had experienced more than one childbirth position

In the semiurban areas of southwestern and northwestern Nigeria studied, the supine positions are currently the most popular among the pregnant women. This observation could be partly attributed to the fact that the major source of these women's knowledge about childbirth positions was the health talks they received in the antenatal clinics, which were usually delivered by the nurses/midwives who themselves acknowledged in the present study that they were conversant with conducting delivery only in the supine positions. Clearly, this reveals the need for increased enlightenment and provision of balanced information on the subject to women in both study settings.

The attitude of the study respondents to the various childbirth positions was also in consonance with their knowledge pattern. The supine positions were viewed favourably, whereas the others including the upright positions were mostly viewed unfavourably. However, those women who had experienced the upright childbirth positions such as kneeling or squatting in previous deliveries were all favourably disposed to those upright positions. This again underscores the importance of adequate knowledge and the vital role that people's past experiences play in shaping their attitudes to things.

Some earlier studies in Nigeria have shown that the assurance of a woman's freedom of choice in various aspects of childbirth such as movement, eating, companionship in labour and childbirth position exert a major influence in deciding their place of delivery.[14,15] Nigerian women have repeatedly disclosed that they get more respect for their opinion and person when their delivery is supervised by a traditional birth or other unskilled attendant than when they deliver in hospital. Using childbirth position as a case study, therefore, the findings of the present study lends support to these earlier observations, further highlighting the need to make the practice of respectful maternity care universal and reduce the current over-medicalization of labour in the orthodox healthcare setting.[16]

Taking the current best available evidence on childbirth position in context, the findings of the present study also demonstrates the importance of preserving the positive elements of a people's local culture and indigenous customs. Indeed, replacing the traditional upright childbirth positions of southwestern and northern Nigeria with the dorsal and lithotomy positions of western civilization amounted to throwing the baby out with the bathwater; especially in

the light of the current evidence in support of the upright positions.[17]

The current situation, therefore, calls for full scale re-orientation, training and retraining of skilled birth attendants in both study settings to proficiency in the conduct of delivery in the various non-supine childbirth positions. Only then would any efforts at increasing enlightenment of the obstetric populace on the advantages and disadvantages of the different childbirth positions yield its full dividends.

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Conflicts of interest
There are no conflicts of interest.

References

1. Reitter A, Daviss B, Bisits A, Schollenberger A, Vogl T, Herrmann E, *et al*. Does pregnancy and/or shifting positions create more room in a woman's pelvis? Am J Obstet Gynecol 2014;211:662.e1-9.
2. Berghella V, Baxter JK, Chauhan SP. Evidence-based labor and delivery management. Am J Obstet Gynecol 2008;199:445-54
3. Gupta JK, Hofmeyr GJ, Shehmar M. Position in second stage of labour for women without epidural analgesia. Cochrane database Syst Rev 2012:5:CD002006.
4. National Institute for Health and Care Excellence (2014). Intrapartum care: Care of healthy women and their babies during childbirth. NICE clinical guideline 190 guidance.nice.org.uk/cg190.
5. Dundes L. The evolution of maternal birthing position. Am J Pub Health 1987;77:636-41.
6. Lefeber Y, Voorhoeve HW. Indigenous customs in childbirth and child care. The Netherlands: Van Gorcum & Comp; 1998.
7. Makinde T. Motherhood as a source of empowerment of women in Yoruba culture. Nordic J Afr Stud 2004;13:164-74.
8. Abiodun R. Women in Yoruba Religious Images. Afr Lang Cultures 1989;2:1-18.
9. Galadanci HS, Sani SI. Childbirth in Nigeria. In: Selin H, editor. Childbirth across cultures. Netherlands: Springer; 2009. p. 215-20.
10. Ityavyar DA. A traditional midwife practice, Sokoto State, Nigeria. Soc Sci Med 1984;18:497-501.
11. National Population Commission. Federal Republic of Nigeria 2006 Population and Housing Census priority table Volume III. Population distribution by Sex, State, LGA and Senatorial District. Abuja, Nigeria April; 2010.
12. Kirkwood BR, Sterne JA, editors. Essential Medical Statistics, 2nd ed. Oxford, MA: Blackwell Science Ltd.; 2003. p. 420.
13. Engelmann GJ. Labor among Primitive Peoples. St. Louis: J.H Chambers; 1882.
14. Abioye-Kuteyi EA, Elias SO, Familusi AF, Fakunle A, Akinfolayan K. The role of traditional birth attendants in Atakumosa, Nigeria. Perspect Public Health 2001;121:119-24.
15. Galandanci H, Ejembi C, Iliyasu Z, Alagh B, Umar U. Maternal health in Northern Nigeria—A far cry from ideal. BJOG 2007;114:448-52.
16. Miller S, Lalonde A. The global epidemic of abuse and disrespect during childbirth: History, evidence, interventions, and FIGO's mother − baby friendly birthing facilities initiative. Int J Gynecol Obstet 2015;131:S49-52.
17. De-Jong A, Largo-Janssen B. Birthing positions. A qualitative study into the views of women about various birthing positions. J Psychosomatic Obstet Gynecol 2004;25:47-55.