

Spouses' Perspective of their Participation and Role in Childbirth Pain Relief

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Abstract

Background: Childbirth is a period characterized by severe pain, and most women desire to ameliorate their pain among other things by having their spouses present and involved in the birthing process. In developing countries like Nigeria, spousal involvement is still an emerging concept in childbirth. **Aim:** To investigate and provide an insight into spousal perceptions toward their participation and role in labor pain relief during childbirth in Nigeria. **Subjects and Methods:** A cross-sectional descriptive study of 142 spouses was conducted in the maternity units of four hospitals in Abuja, Nigeria, from June to December 2014. Data were collected through a pretested interview-administered 24 item questionnaire, the Abuja Instrument for Parturient Spouse. The data were analyzed statistically using Chi-square test for association between the variables and content analysis for open-ended questions. **Results:** Most (94.4%, 134/142) of the spouses had a positive perception toward labor pain relief. They believed that their presence and activities contributed to labor pain relief and are willing to be present at subsequent births. **Conclusion:** Findings in this study have revealed a positive trend in spousal perception and involvement during childbirth and pain relief, as contrast to the prevailing assumption that childbirth is an exclusive woman affair. Spousal presence during childbirth can be beneficial not only to the woman but also to the spouse and family.

Keywords: Childbirth, Pain Relief, Perception, Spouses

Introduction

Women desire to have their spouses present and involved during childbirth. Childbirth is a period characterized by stress and pain that is excruciating and described as the worst pain ever.^[1] The spousal presence and involvement during childbirth have been reported to contribute positively in relation to pain relief, reduced analgesia use, the length of childbirth, and satisfactory birth experience.^[2-7] In addition, spouses provide emotional support in the form of encouragement, praise, reassurance, listening, and a continuous physical presence which are key components of intra-partum care.^[8] Further, spousal presence strengthens the bond and the relationship between the partners

as well as promoting spousal responsibility during childbirth^[9] while sharing in the pain of their partners by expressing, sympathy, guilt, fear, and confusion.^[10]

In this study, a spouse is defined as a male who is married or cohabitating but still takes responsibility for the pregnancy and childbirth. Research about spouse's involvement and participation during childbirth in developing countries has been conflicting. Some previous studies have reported that most spouses were present during childbirth.^[11-13] A cross-sectional study conducted in Nigeria that assessed the level of participation of Nigerian men in pregnancy and birth showed

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that 72.5% men accompanied their wives to the hospital and 63.9% were present at the birth.^[14] In addition, a 2005 study on father's involvement in maternal health activities reported that attendance at delivery was the most common activity majority (81%) of fathers participated in.^[15]

Conversely, other previous studies have reported the poor involvement of men in the birthing process, notwithstanding that some studies have reported spouse's willingness to be involved during childbirth.^[16,17] Some men considered childbirth as a women's affair and a natural phenomenon that does not require men's participation.^[18-24] In addition, a recent study conducted in India showed that in line with traditional gender roles, men view issues related to pregnancy and childbirth as the domain of women.^[25] Other studies conducted on fathers' participation in maternity care in Northern and Southwest region of Nigeria revealed that only 32.1% and 27.1% of men ever accompanied their spouses for maternity care, respectively. It showed that men could comfortably perform other external activities relating to birth such as providing financial support, but their involvement emotionally was poor as only a few reported accompanying their wives during childbirth.^[18,26] Furthermore, employment, cultural, and religion factors have been reported as causes of spouse absence during childbirth.^[18,27]

In Nigeria, a patriarchal society,^[28] spouses are meant to play an important role in maternal and child health care. With their perceived positions in the family as head and decision makers, spouses have tremendous control over their partners due to their economic and social status. From the prenatal to post-delivery period, they have a strong influence over their partners and decide the timing and conditions of sexual relations, family size, and most importantly access to health care.^[18] Furthermore, a spouse behavior can significantly affect the childbirth outcomes of the woman.^[29] With the authority and power accorded to the spouse, due to the fact that they are an important partner for improving and achieving adequate maternal health care, their involvement has been promoted as a promising new strategy for improving maternal and child health.^[30]

In as much as the involvement of men in maternal and child health is relevant and coupled with a supportive environment in many developing countries including Nigeria, spouse involvement in childbirth is low due to the fact that maternal health-care services are still largely female oriented.^[31] To date, spousal presence during childbirth is still an evolving issue in maternal health-care practices in Nigeria. While the benefits accruing from spouse involvement in maternal health care have been researched and documented from the perspective of the women,^[32-34] the perception of the spouses in relation to their involvement with emphasis on their role as part of the pain relief care during childbirth has not been explored.

Spousal presence has been reported as one of the methods utilized for pain relief during childbirth,^[35] and using this

method for pain relief requires the spouse to be readily available during birth. In addition, the perception of the spouse toward childbirth and its pain relief care is a determining factor in his involvement and level of participation.^[16] Therefore, the aim of this study was to investigate and provide an insight into spousal perceptions toward their participation and role in pain relief care during childbirth in Nigeria.

Subjects and Methods

Study setting and participants

This is a survey study conducted in four hospitals (Kubwa General Hospital, Garki General Hospital, Wuse General Hospital, and Maitama District Hospital) in Abuja, Nigeria, from June to December 2014. Nigeria is the most populous nation in Africa with an estimated population of about 177 million and a population growth rate of about 2.47% evident by a birth rate of 38.03 births/1000 population.^[36] Approximately, a hundred million of the population is between 15 and 64 years, of which about 50.6% are male while 49.4% are female.^[37] The country is ethnically diverse with about 389 ethnic groups comprising Igbo, Hausa, Yoruba, Fulani, Igala, Igbira, Ijaws, Benin, Urhobo, Tarok, Tiv, and Nupe among others, with over 500 languages and English as the official language. Christians constitute about 40%, Muslims 50%, and indigenous beliefs about 10% of the population. Literacy is reportedly highest in males (72.1%) and urban dwellers constitute 49.6% of the total population.^[36]

The study participants were 142 spouses whose partners were within 48 h post birth. The selection was made through the convenience sampling technique. Inclusion criteria for the study included spouses whose partner's (childbearing women) were eligible to participate in a similar study with vaginal births and consenting couples. Exclusion criteria included spouses with partners who had a cesarean section.

Study design and procedure

A cross-sectional design was used. The outcome variable was the spousal attendance in subsequent childbirth and involvement in pain relief care. The independent variables were the participants' social demographics factors (age, education, employment, ethnicity, marital status, and religion).

Participants were approached by the researcher requesting their participation in the study. Those who accepted to participate were given the study fact sheets and verbal explanations were also provided for clarity. Informed consent was obtained through the signing of a short consent form by all participants and full confidentiality maintained. In addition, participants were allowed to withdraw from the study at any time. A pretested interview-administered questionnaire for spouses, Abuja Instrument for Parturient Spouse (AIPS) was used for data collection.^[38] The AIPS is a 24-item questionnaire developed by the researcher from modifying the Kuopio Instrument for Fathers.^[39] Earlier, a pilot study examining the

clarity of the questionnaire showed an internal consistency indicating a Cronbach's alpha coefficient of 0.86 while test-retest reliability was $r = 0.90$.^[38] The questionnaire was administered within 48 h after post birth of the spouse-partner by the researcher and a research assistant. Administration of the questionnaire was conducted in English Language and lasted from 10 to 15 min per participant.

Data analysis

The data were entered, coded, and analyzed using IBM SPSS Statistics for Windows, Version 21.0 (Armonk, NY: IBM Corporation 2012, NY, USA). Descriptive statistics, frequency, and percentages were used to analyze each demographic characteristic of participants and items data in the AIPS questionnaire. Chi-square test was used to examine the association between the independent variables and outcome variable with $P < 0.05$ being considered statistically significant. Whereas, Fisher's exact test (FET) was used in analyzing data cells that had a value of five or less.^[40]

In addition, conventional content analysis was used to analyze qualitative data from open-ended questions.^[41] The data consisting of three open-ended questions relating to spousal feelings about childbirth and birth pain answered by all participants were analyzed. Data were read twice by two researchers, and patterns of words, phrases, or statements were identified and assigned codes. Abstraction method was employed in putting similar codes together, and further themes were identified through a consistent pattern of the statements from the data, for example, the original statement "I was scared and share in her pain;" theme "spousal feelings concerning birth pain." This process was achieved by a consensus.

Ethical issues

The study was approved by the University of Eastern Finland Ethics Committee (28/2012) and the Federal Capital Territory Health Research Ethics Committee of Nigeria (FHREC/2014/01/17/06-05-14). Participation was voluntary, and full confidentiality was maintained on participants' data.

Results

Demographic characteristics

Table 1 shows the demographic characteristics of the study participants. The median age was 35 years (interquartile range of 30–39). The majority (52.8%, 75/142) of the spouses had university education while a few (3.5%, 5/142) had no formal education. More than half (68.3%, 97/142) of the spouses were from the three major ethnicities of Igbo, Yoruba, and Hausa. In relation to the employment status of spouses, 85.3% (128/142) were fully employed while only 0.7% (1/142) was unemployed. The majority (23.3%, 35/142) of the spouses were businessmen, and 16.0% (24/142) were artisans. Nearly 97.2% (138/142) of the spouses were married and 2.8% (4/142) cohabitating.

Table 1: Demographic characteristic of spouses (n=142)

Variables	n (%)
Age (years)	
18-23	8 (5.6)
24-29	23 (16.2)
30-35	43 (30.3)
36-41	49 (34.5)
42-47	19 (13.4)
Ethnicity	
Igbo	48 (33.8)
Hausa	26 (18.3)
Yoruba	23 (16.2)
Minorities	45 (31.7)
Education	
No formal	5 (3.5)
Primary school	4 (2.8)
Secondary school	43 (30.3)
Vocational school	15 (10.6)
University	75 (52.8)
Employment status	
Full time	128 (85.3)
Part time	19 (12.7)
Self-employed	2 (1.7)
Not employed	1 (0.7)
Marital status	
Married	138 (97.2)
Cohabitation	4 (2.8)
Religion	
Christianity	124 (87.3)
Muslim	18 (12.7)

Spousal presence during childbirth and perception of partner's pain

The majority (71.3%, 107/142) of spouses were present during the birthing process from the beginning of labor to the end, 18.7% (28/142) were present at the beginning of labor only, and 4.7% (7/142) were present from mid-labor to the end. When spouses were asked who encouraged them to be present during childbirth, most (93.7%, 133/142) of them answered "myself," 3.5% (5/142) "my partner and I," and 2.8% (4/142) "the obstetrician." About 4.9% (7/142) of the spouses believed their partners labor pain was mild, 20.3% (43/142) believed it was moderate, 52.1% (74/142) believed it was severe, and 12.7% (18/142) believed it was the worst pain ever. The majority (94.4%, 134/142) provided pain relief activities for their partners [Table 2].

Association of spousal demographic factors with spousal attendance in subsequent births and involvement in pain relief care

In Chi-square test of independence, the association between the spousal demographic variables (age, education, employment, and ethnicity) and spousal attendance in subsequent births and involvement in pain relief care among participants was not significant: age ($P = 0.73$), education ($P = 0.83$),

employment ($P = 0.1$), and ethnicity ($P = 0.1$). In addition, there was no significant relationship with religion ($P = 0.65$, FET) and marital status ($P = 1.00$, FET). These results showed that spousal demographics was not associated with spousal attendance in subsequent births and involvement in labor pain relief care, which indicates that spousal demographics does not make any difference in the spousal perception of childbirth attendance and involvement in pain relief care.

Table 2: Spousal presence during childbirth and labor pain (n=142)

Variables	n (%)
How many births have your partner had?	
1-3	116 (81.7)
4-6	22 (15.5)
7-10	4 (2.8)
How many times have you attended your partners' birth?	
Once	11 (7.7)
Twice	40 (31.3)
Thrice	5 (3.5)
All the births	86 (60.6)
At what time were you present during this recent birth?	
Beginning of birth	28 (18.7)
Beginning of birth to the end	107 (71.3)
Mid birth to the end	7 (4.7)
Who encouraged you to be present during your partners' childbirth?	
Myself	133 (93.7)
My spouse and I	5 (3.5)
Obstetrician	4 (2.8)
How can you describe your spouse labor pain on the universal pain scale?	
Mild pain	7 (4.9)
Moderate pain	43 (30.3)
Severe pain	74 (52.1)
Worst pain ever	18 (12.7)
Did you do anything to help her with the labor pain?	
Yes	134 (94.4)
No	8 (5.6)
What did you do to help with the labor pain?	
Holding hands	40 (12.7)
Back massage	59 (18.8)
Breathing exercise	14 (4.5)
Comforting words	104 (32.2)
Prayers	12 (3.8)

Reported spousal views and descriptions about their partner's birthing process

Table 3 shows the frequencies of spousal feelings about their partner's birthing process. Most (73.2%, 104/142) of the spouses strongly agreed that their presence was important during childbirth, a good percentage (85.9%, 122/142) strongly agreed that their spouses were in pain, and 66.9% (95/142) also strongly agreed that their presence helped in labor pain alleviation.

Further, content analysis for the description of spousal feelings concerning childbirth and birth pain is presented as three main themes: spousal feelings concerning birth pain, spousal presence at subsequent births, and spouses accompanying partner and remaining all through childbirth. These findings are presented with narratives from participants.

Spousal feelings concerning birth pain

Spouses in this study described how they felt about their partner's pain during childbirth. Childbirth for the spouses was a very crucial period that was characterized by emotional spousal feelings and unemotional spousal feeling (women enduring pain). Almost all the spouses described their feelings with words of emotions such as sharing the childbirth pain, fear, confusion, empathy, sympathy, and appreciation. One of the spouses expressed his feelings as, "I felt I was carrying the pregnancy and sharing the pain with her (S10)." Another expressed fear and confusion by saying, "I was afraid, confused, and wanted the pain to be over (S25)," "I was afraid throughout the process (S32)." Some spouses also showed guilt, sympathy, and appreciated their partner's pain. This is evident by their descriptive statements: "I felt bad and sad concerning her pain (S12)," "I felt pity and really terrible allowing her undergo such pain (S02)," and "I felt I have not loved her the way I am supposed to (S45)."

Few spouses expressed unemotional feelings toward their partner's pain. This was reported in their descriptions as, "I felt indifferent, labor pain is natural for a woman to bear (S76)," and "my feelings were neutral as labor pain is a natural pain and all women experience and endure it (S115)."

Spousal presence at subsequent births

In response to spouses being present at subsequent births of their partners, findings showed that the participants differ

Table 3: Spouse responses about their partner's childbirth pain (n=142)

Variables	Strongly agree, n (%)	Agree, n (%)	Neither agree or disagree, n (%)	Disagree, n (%)	Strongly disagree, n (%)
(1) Do you agree your presence was important during your partner's birth?	104 (73.2)	32 (22.5)	4 (2.8)	1 (0.7)	1 (0.7)
(2) Do you agree that your partner was in pain during labor?	122 (85.9)	19 (13.4)	1 (0.7)	-	-
(3) Do you agree that your presence helped in relieving your partner's pain?	95 (66.9)	34 (23.9)	8 (5.6)	1 (0.7)	4 (2.8)

in their views. Most of the spouses will want to attend the childbirth process with their partners, but a few spouses will not. Under this second theme, spouses providing support, spousal responsibility, and unpleasant experience were used to describe father's responses. The majority of spouses felt that they had to be at subsequent births to provide support ranging from emotional, psychological, and financial support. Descriptive sentences of support from spouses were "I want to share her pain always and help her relief pain," "to provide emotional and psychological support (S02)," and "to provide necessities and financial support (S115)."

Furthermore, spouses believed that they were the owner of the pregnancy and thus should be responsible for being present at different stages of the pregnancy and most especially during birth. Some spouse responses were quoted thus, "It is my responsibility to always be here and my wife's entitlement (S07)" and "It is a necessity and a responsibility I must uphold (S45)." In addition, results showed that few spouses did not want to be present at subsequent births as a result of an unpleasant experience. Two spouses described their feelings like "I am scared of childbirth (S18)" and "I don't want to experience it again, my mother will take her and I will just pay the hospital bills (S32)."

Spouse accompanying the partner and remaining through childbirth

The third theme described spousal views of bringing their partner's to the maternity be present from the onset of childbirth and remaining till the post birth period. Almost all the spouses reported that it was a good practice and should be encouraged. The spouses in this study stated their views as "it is very important and should be encouraged (S23)" and "it is necessary every spouse should participate in the delivery and labor pain process (S03)." However, some spouses believed that their presence was not necessary because it does not contribute to any relief during childbirth and most importantly, female relatives of the spouse could be of better help to the woman. A spouse expresses his view as "I don't believe I can help during labor, female relatives better help with the pain (S09)."

Discussion

This study investigated spousal perceptions toward their participation and role in childbirth pain relief care during childbirth in Nigeria. Findings in this study demonstrated a positive perception from spouses as regard being present during their partner's childbirth and pain relief care, with most of the spouses present all through childbirth. This is in agreement with previous studies acknowledging spousal willingness to be present and eager to participate in care activities for their partners during childbirth,^[16,17] as well as an increased level of spouse attendance during childbirth in developing countries.^[12,14]

This study found that majority of spouses took the decision to be present during childbirth independently, with just a few spouses taking joint decisions with their partners. This differs from an earlier study conducted in Greece where over half of the fathers in the study took the decision to be with their partners during childbirth.^[39] In Nigeria, spouses make most of the decisions concerning their partner's maternal care, and childbirth is usually seen as women affair in the African context.^[18,19,21,23,24] With this decision-making role and the positive views of spousal presence, there is a strong indication of a shift in the perceived gender dominance of childbirth and a progressive increase in spousal involvement during childbirth and labor pain relief. In addition, the foregoing is suggestive of a positive trend of increased and active participation of spouses in childbirth as against the previous passive role they are identified with.

Furthermore, socio-demographics variables such as age, religion, marital status, and ethnicity have been reported to be factors associated with spousal attendance of childbirth.^[18,26] This is not consistent with findings in this study as these demographic variables had no association with spousal perception of attending subsequent births and their involvement in pain relief care. Although most of the spouses were fully employed, their employment status did not have any effect on their participation as they were willing to take time off to be with their partners during subsequent birth. This is in contrast with the findings in an earlier study^[27] where men stated their job responsibilities as the reason for not being able to physically support their partners during childbirth. Furthermore, evidence in a previous research has shown that spousal attendance during childbirth was determined by the level of spousal education.^[42] Spouses with a higher education were likely to be present during childbirth compared to men of less academic standing. On the contrary, findings in our study illustrated that education was not associated with perceived spousal attendance of childbirth. This could be because a majority of the participants had a higher level of education, but also it is pertinent to note that all of the spouses in this study that had no formal education were present from the beginning to the end during the birthing process.

In terms of pain during childbirth, most of the spouses believed that their partner had severe pain and that they actually helped with alleviating the pain. Activities carried out by such spouses in relieving pain were comforting words and holding hands which they believed was part of the important role they had to play during labor pain relief care. Further, in response to spouse's feelings toward their partner's childbirth pain, spouses differ in their responses. Majority expressed sympathy, guilt, fear, and confusion and stated that they shared the painful feelings with their partners which are similar to findings reported by Johnson.^[10] In addition, most fathers expressed fear concerning their partner's pain as they wanted it to be over quickly. Most times this fear is associated with uncertainties

about the birthing process leading to anxious thoughts, frustration, and helplessness. Notwithstanding, few husbands still expressed a feeling of indifference toward their partner's pain. Such men interpreted pain as natural and inevitable effects of childbirth, which should be endured temporarily since the pain will stop when the child is born. These findings indicated a spousal complex mix of emotions, both positive and negative.

Interestingly, spouses in this study were positive about attending subsequent births. Among the various reasons given for their willingness to attend subsequent births were the needs to help their partners with pain relief, providing emotional and psychological support and most importantly solidarity with their partners in the time of need. Most of the spouses wanted to be physically present for their partners during the critical period of the birthing process. They want to offer support and show love as well as taking responsibility as fathers, thus strengthening their relationships and bonding with partners.^[9]

The findings of this study revealed that the majority of spouses expressed a strong support to accompany their wives during childbirth and remain in the hospital facility until the end of the birthing process. Spousal presence during childbirth was believed and acknowledged as good practice for pain amelioration and it should be encouraged. Even with this current trend where spouses were willing to participate in alleviating pain all through childbirth, they are not usually allowed into the delivery room. Spouses only had the opportunity to be with their partners within the common rooms or non-restricted areas of the maternity units before their partners proceeded to the delivery room. There is a need for future research on spousal inability to be in the delivery room in Nigeria.

In spite of our findings, there were obvious limitations to the study. First and foremost, the study was not randomized. Bearing in mind that convenient sampling was used in selecting the participants, it poses a potential risk of bias. Second, the research design used for this study can only employ a relatively passive approach to making causal inferences based on findings.

This study was conducted in urban health-care facilities to the exclusion of numerous other primary health-care facilities. As such, the institutional limitation of this study is such that its findings cannot be generalized to reflect the true and accurate population of spouses across Nigeria. Nonetheless, data used in this study were drawn from a diversified ethnic population with a wide spread of minority ethnicity representing a fair percentage of the respondents.

Implication for practice

Health-care facilities and professionals provide essential pain relief care during childbirth. Appropriate pain relief methods

by midwives enhance the childbirth care for the woman. There are numerous sustainable pain relief methods such as spousal presence. Spousal presence contributes to pain relief during childbirth through psychological and physical support for their partner. For proper utilization and positive outcome for spousal presence as a pain relief method during childbirth, the views of spouses about the beneficial impact of their involvement in the birthing process of their partners should be ascertained, explored, and adopted as part of maternal care policy and pain relief practices by health-care professionals and their facilities.

Conclusion

This study has provided an insight into the views and perception of spouses vis-à-vis their participation during childbirth and pain relief. Findings in this study have demonstrated a paradigm that there are indications of a positive trend in spousal participation during childbirth as against the old statuesque of believing that childbirth is all a woman affair. This positive willingness to participate is commendable, as most of the spouses are willing to go through the birthing process with their partners over again when the need arises. It is trite that the spouse is willing to share his partner's pain and be part of the pain relief and pain support mechanism. Furthermore, the fact that the positive views of the spouses on their key role in providing emotional labor support for the woman and the positive contribution they make to labor pain relief cuts across social barriers, economic, or educational standing of spouses that participated in this study. The widespread acceptance of the relevance of spousal participation during childbirth calls for it to be adopted as a deliberate health-care policy and nursing practice in Nigeria and other developing countries where the practice is yet to be fully adopted. Consequently, this study recommends that health-care facilities and professionals should acknowledge and highlight the importance of spousal presence in labor pain relief and thus create an enabling environment for the participation of spouses during childbirth. Spousal presence during childbirth is not only beneficial to the woman and the supporting spouse but also to the family, society, and the health-care burden of developing countries.

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Conflicts of interest

There are no conflicts of interest.

References

- Pirdel M, Pirdel L. Perceived environmental stressors and pain perception during labor among primiparous and multiparous women. *J Reprod Fertil* 2009; 10:217.
- Somers-Smith MJ. A place for the partner? Expectations and experiences of support during childbirth. *Midwifery* 1999; 15:101-8.
- Ip WY. Relationships between partner's support during labour and maternal outcomes. *J Clin Nurs* 2000; 9:265-72.
- Gungor I, Beji NK. Effects of fathers' attendance to labor and delivery on the experience of childbirth in Turkey. *West J Nurs Res* 2007; 29:213-31.
- Kainz G, Eliasson M, von Post I. The child's father, an important person for the mother's well-being during the childbirth: A hermeneutic study. *Health Care Women Int* 2010; 31:621-35.
- Porrett L, Barkla S, Knights J, de Costa C, Harmen S. An exploration of the perceptions of male partners involved in the birthing experience at a regional Australian hospital. *J Midwifery Womens Health* 2013; 58:92-7.
- Melo RM, Brito RS. The fathers' perception about their presence in the labor room during the birth of their child: A descriptive study. *Online Braz J Nurs* 2013; 12:596-8.
- Christenson MH. Perception, Expression and Management of the Pain of Childbirth; 2013. Available from: <http://www.digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1404&context=honors>. [Last cited on 2015 Nov 26].
- Pestvenidze E, Bohrer M. Finally, daddies in the delivery room: parents' education in Georgia. *Glob Public Health* 2007; 2:169-83.
- Johnson M. An exploration of men's experience and role of childbirth. *J Men Stud* 2002; 10:165-79.
- Awasthi A, Nandan D, Mehrotra AK, Shankar R. Male participation in maternal care in urban slums of district Agra. *Indian J Prev Soc Med* 2008; 39:3-4.
- Udofia EA, Akwaowo CD. Pregnancy and after: What women want from their partners - Listening to women in Uyo, Nigeria. *J Psychosom Obstet Gynaecol* 2012; 33:112-9.
- Obi AI, Abe E, Okojie OH. Male and community involvement in birth preparedness and complication readiness in Benin City, Southern Nigeria. *Int Organ Sci Res J Dent Med Sci* 2013; 10:27-32.
- Olayemi O, Bello FA, Aimakhu CO, Obajimi GO, Adekunle AO. Male participation in pregnancy and delivery in Nigeria: A survey of antenatal attendees. *J Biosoc Sci* 2009; 41:493-503.
- Carter MW, Speizer I. Salvadoran fathers' attendance at prenatal care, delivery, and postpartum care. *Rev Panam Salud Publica* 2005; 18:149-56.
- Kaye DK, Kakaire O, Nakimuli A, Osinde MO, Mbalinda SN, Kakande N. Male involvement during pregnancy and childbirth: Men's perceptions, practices and experiences during the care for women who developed childbirth complications in Mulago hospital, Uganda. *BMC Pregnancy Childbirth* 2014; 14:54.
- Zhang X, Lu H. Childbirth expectations and correlates at the final stage of pregnancy in Chinese expectant parents. *Int J Nurs Sci* 2014; 1:151-6.
- Iliyasu Z, Abubakar IS, Galadanci HS, Aliyu MH. Birth preparedness, complication readiness and fathers' participation in maternity care in a Northern Nigerian community. *Afr J Reprod Health* 2010; 14:21-32.
- Kabakyenga JK, Östergren PO, Turyakira E, Pettersson KO. Influence of birth preparedness, decision-making on location of birth and assistance by skilled birth attendants among women in South-western Uganda. *PLoS One* 2012; 7:e35747.
- Kululanga LI, Sundby J, Malata A, Chirwa E. Male involvement in maternity health care in Malawi: Original research article. *Afr J Reprod Health* 2012; 16:145-57.
- Nanjala M, Wamalwa D. Determinants of male partner involvement in promoting deliveries by skilled attendants in Busia, Kenya. *Glob J Health Sci* 2012; 4:60-7.
- Kwambai TK, Dellicour S, Desai M, Ameh CA, Person B, Achieng F, *et al.* Perspectives of men on antenatal and delivery care service utilisation in rural Western Kenya: A qualitative study. *BMC Pregnancy Childbirth* 2013; 13:134.
- Akinpelu AO, Oluwaseyi OI. Attitude and practice of males towards antenatal care in Saki West local government area of Oyo STATE, Nigeria. *Adv life Sci Technol* 2014; 22:1-5.
- Dumbaugh M, Tawiah-Agyemang C, Manu A, ten Asbroek GH, Kirkwood B, Hill Z. Perceptions of, attitudes towards and barriers to male involvement in newborn care in rural Ghana, West Africa: A qualitative analysis. *BMC Pregnancy Childbirth* 2014; 14:269.
- Singh D, Lample M, Earnest J. The involvement of men in maternal health care: Cross-sectional, pilot case studies from Maligita and Kibibi, Uganda. *Reprod Health* 2014; 11:68.
- Olugbenga-Bello AI, Asekun-Olarinmoye EO, Adewole AO, Adeomi AA, Olarewaju SO. Perception, attitude and involvement of men in maternal health care in a Nigerian community. *J Public Health Epidemiol* 2013; 5:262-70.
- Secka E. "Men's Involvement in Care and Support During Pregnancy and Childbirth", A Thesis Submitted to the Department of General Practice and Community Medicine, Institute of Health and Society, Oslo University; 2010.
- Makama GA. Patriarchy and gender inequality in Nigeria: The way forward. *Eur Sci J* 2013; 9:17.
- Mullick S, Kunene B, Wanjiru M. Involving men in maternity care: Health service delivery issues. *Agenda Spec Focus* 2005; 6:124-35.
- Cohen SI, Burger M. Parenting a New Approach to Sexual and Reproductive Health. Technical Paper No. 3, UNPF; 2000. Available from: http://www.unfpa.org/sites/default/files/pub-pdf/partnering_eng.pdf. [Last cited on 2015 Dec 6].
- Ani F, Abiodun O, Sotunsa J, Faturoti O, Imaralu J, Olaleye A. Demographic factors related to male involvement in reproductive health care services in Nigeria. *Eur J Contracept Reprod Health Care* 2015; 1:57-67.
- Morhason-Bello IO, Adedokun BO, Ojengbede OA, Olayemi O, Oladokun A, Fabamwo AO. Assessment of the effect of psychosocial support during childbirth in Ibadan, South-West Nigeria: A randomised controlled trial. *Aust N Z J Obstet Gynaecol* 2009; 49:145-50.
- Oboro VO, Oyeniran AO, Akinola SE, Isawumi AI. Attitudes of Nigerian women toward the presence of their husband or partner as a support person during labor. *Int J Gynaecol Obstet* 2011; 112:56-8.
- Adeniran AS, Aboyeji AP, Fawole AA, Balogun OR, Adesina KT, Adeniran PI. Male partner's role during pregnancy, labour and delivery: Expectations of pregnant women in Nigeria. *Int J Health Sci (Qassim)* 2015; 9:305-13.
- Gayeski ME, Brüggemann OM, Monticelli M, Dos Santos EK.

- Application of nonpharmacologic methods to relieve pain during labor: The point of view of primiparous women. *Pain Manag Nurs* 2015; 16:273-84.
36. Index Mundi. Nigeria Demographics Profile; 2014. Available from: <http://www.indexmundi.com/Factbook/Countries/Nigeria>. [Last cited on 2015 Dec 6].
 37. Country Meters. Nigeria Population | Current Population of Nigeria. Available from: <http://www.countrymeters.info/en/Nigeria>. [Last cited on 2015 Dec 6].
 38. Emelonye AU, Pitkäaho T, Vehviläinen-Julkunen K. Spousal presence as a nonpharmacological pain management during childbirth: A pilot study. *Nurs Res Pract* 2015; 2015:932763.
 39. Sapountzi-Krepia D, Lavdaniti M, Dimitriadou A, Psychogiou M, Sgantzios M, He HG, *et al.* Fathers' feelings and experience related to their wife/partner's delivery in Northern Greece. *Open Nurs J* 2010; 4:48-54.
 40. SISA. Simple Interactive Statistical Analysis. Fisher Exact Test. Available from: <http://www.quantitativeskills.com/sisa/statistics/fishrhlp.htm>. [Last cited on 2015 Dec 6].
 41. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res* 2005; 15:1277-88.
 42. Umeora OU, Ukkaegbe CI, Eze JN, Masekoameng AK. Spousal companionship in labour in an urban facility in South East Nigeria. *Anatol J Obstet Gynecol* 2011; 2:1.