IBOM MEDICAL JOURNAL
Vol.15 No.3 September, 2022. Pages 215 - 222
www.ibommedicaljournal.org

# Knowledge and Attitude towards Pregnancy Care and Delivery among Male Commercial Motorcyclists in Ibadan, Nigeria

*Ogunwale BE[1], Ibirongbe DO[2*], Akeke FA[3], Asuzu MC[1,2]*

*[1]Department of Community Medicine, College of Medicine, University of Ibadan, Ibadan, Nigeria*
*[2]Department of Community Medicine, University of Medical Sciences (UNIMED), Ondo, Nigeria*
*[3]Department of Community Medicine, University of Medical Sciences Teaching Hospital (UNIMEDTH), Ondo, Nigeria*

## Abstract

**Background:** Men's influences are gradually being recognised in pregnancy and delivery care. The study aims to determine the knowledge and attitude of male commercial motorcyclists on pregnancy care and delivery of women.
**Materials and Methods:** This cross-sectional study was conducted among married male commercial motorcyclists, operating in Ibadan North Local Government Area selected using a cluster sampling technique. Data was collected using a pre-tested, structured interviewer-administered questionnaire, and analysed using SPSS version 16. Each section was evaluated using rating of a three-point Likert scale with each item scored based on responses ranging from disagree to agree. Results were presented in tables and charts.
**Results:** Four hundred and fifty three male commercial motorcyclists were interviewed. The mean age was 34.2±7.3years, 301 (66.4%) had secondary education, while 390 (86.1%) were in a monogamous marriage. Thirty 30(6.6%) respondents did not know when their wives registered for ANC while majority, 444(98.1%) did not know the duration of their wives' labour. Few respondents 46 (10.2%) recognized vaginal bleeding as a common danger signs in pregnancy while 277 (61.1%) agree that women should have at least four ANC visits before delivery. Many of the respondents 315 (69.6%) had good knowledge, and 304 (67.1%) had positive attitude towards antenatal and delivery care.
**Conclusion:** Educational efforts on maternal health care should also focus on the men to improve their knowledge, attitude and involvement in antenatal and pregnancy.

Keywords: Male involvement, Male knowledge, Pregnancy care, Delivery care, Motorcyclists

## Introduction

Lack of male involvement in pregnancy-related care is one of the contributing factors to maternal death, as male involvement in maternal, new born and child health has been found to contribute to better health outcomes for women and their children.[1,2] There is evidence that when men have better understanding of women's health needs, attitudes toward utilization of maternal and child health services, of both women and men, are improved, especially given the role of men as the ultimate decision makers in families.[3] The men are central to birth preparations and the actions needed in case of an emergency, including recognition of danger signs. In view of the global Sustainable Development Goal (SDG) target 3.1 of reducing global maternal mortality ratio (MMR) to less than 70 per 100,000 live births by 2030, the role of men becomes particularly important given the unacceptably high MMR in Nigeria of 512 per 100,000 live births.[4]

**Corresponding Author: Dr. Dr Demilade Olusola Ibirongbe**

***Department of Community Medicine,***
***University of Medical Sciences (UNIMED),***
***Ondo, Nigeria.***
***E-mail: demiedoki@gmail.com, Phone: +2348035617453***

Interventions and programmes designed over the years to reduce MMR, have not been very successful especially in Africa, because reproductive health programmes have traditionally focused on women who have rather socio-culturally limited powers in decision making in an average African family setting.[5] In patriarchal traditional system, as we have in Nigeria, men occupy a superior position in the family decision-making processes. However, few interventions have targeted men directly in ANC, birth preparedness or obstetric decision making. Men's influences are gradually being increasingly recognised in pregnancy and delivery care, since the International Conference on Population and Development (ICPD) of 1994;[6] this includes men's role in health care decision-making and their responsibilities as fathers, husbands, and breadwinners. Therefore, the idea of integrating men into pregnancy and the child delivery care equation is widely seen as a key to improving the health of the family, suggesting that men play indispensable roles in pregnancy and delivery care practices, including response in obstetric emergencies.

A number of studies have highlighted the important role played by men in making decisions pertaining to maternal health issues and called for increased male involvement in Maternal and Child Health Care.[7-9] However, men lack knowledge on maternal health issues and this limits their involvement as well as women's access to life-saving treatment.[9-11] Men who are poorly informed or disengaged from pregnancy and childbirth may present serious barriers to women's ability to act in their own and their children's interests. It has been shown that men's knowledge about pregnancy-related care and a positive gender attitude enhances maternal health care utilization and women's decision-making about their health care, while their presence during antenatal care visits markedly increases the chances of women's delivery in institutions.[11]

Commercial motorcyclists are the sample population for this study and they are usually men, often with low level of education and income, and were chosen as organized community of men in this southwest community in Nigeria. They are a convenient group of men working together in a defined location, and their findings will approximate findings from working men of the informal workforce in that age group. The study objective is to determine the knowledge, and attitude of male commercial motorcyclists on pregnancy and delivery care of women in Ibadan North Local Government Area of Oyo State, thus providing invaluable baseline data regarding key aspects of men's knowledge, and attitude as it relates to pregnancy care and delivery care.

## Materials and methods

The study was conducted amongst male commercial motorcyclists operating in Ibadan North Local Government Area (LGA), Oyo State, in South-western Nigeria. Ibadan North LGA with Bodija as its administrative headquarters is one of the five LGAs carved out of the defunct Ibadan Municipal Government in 1991. The LGA covers a landmass of 132.500 square kilometres with a population density of 2,626 persons per square kilometre. Using a growth rate of 3.2% from the 2006 census, its estimated population is put at 347,998. The area is dominated predominantly by the Yorubas.

It was a descriptive cross-sectional study carried out among married men, 18 years of age and above, whose wives had given birth in the last 2 years. Sample size was calculated using the formula for cross-sectional studies ($N = Z^2pq/d^2$)[12] at a 95% confidence level, and 34% prevalence of men who attended prenatal and delivery care from a similar study.[13] Assuming a non-response rate of 10%, a minimum sample size of 380 was calculated. Cluster sampling technique was used to select respondents. There are thirty-four (34) clusters from which commercial motorcyclists in Ibadan North LGA operate and 17 clusters from these were selected using simple random sampling method. All motorcyclists in the selected clusters who met the inclusion criteria were selected for the study.

Data was collected using a pre-tested, structured interviewer administered questionnaire, by trained research assistants with minimum senior school certificate (SSC) qualifications. The questionnaire was developed after a review of relevant literature, and contained sections on socio-demographic characteristics of the respondents, knowledge on pregnancy and delivery care, and attitude towards pregnancy and delivery care. The questionnaire was pre-tested among commercial motorcyclists in Ibadan North-East LGA and necessary adjustments

made thereafter. Collected data was checked for errors and cleaned; and subsequently entered electronically and analysed using the Statistical Package for the Social Sciences (SPSS) version 16.
Areas in which knowledge and attitude were assessed included ANC visits, at-risk pregnancy, common danger signs in pregnancy, and appropriate place for managing complications during pregnancy and delivery, and care for the wife by the husband during delivery. The sections on knowledge and attitude were evaluated using rating of a three-point Likert scale. Each item was scored based on responses ranging from disagree to agree (Agree=3, Undecided=2, disagree=1). Maximum score per question was 3. Higher scores signify greater knowledge, and attitude. Responses for non-affirmative questions were recoded to follow the scoring for affirmative questions; i.e., 1 was recoded to 3 and 3 was recoded to 1. There were in total 32 questions on knowledge, and 18 questions on attitude. Mean scores for each were calculated and were used to disaggregate the knowledge, and attitude scores into good and poor with scores ≥ mean termed as good while scores < mean were termed as poor.
Monthly income of the respondents was classified based on the minimum wage for workers in the Nigerian civil service (N18,000.00) at the time of the study (which is now N30,000.00), and respondents dichotomized as earning above or below minimum wage. The results were presented in tables and charts as frequencies and proportions.
Ethical approval was sought from Oyo State Ethical Review Committee of the Ministry of Health, Ibadan, while written informed consent was obtained from all participants after the purpose of the study was explained, and issues of confidentiality were adequately addressed.

## Results

Four hundred and fifty three (453) male commercial motorcyclists were interviewed. Table 1 shows the socio-demographic characteristics of the respondents. The mean age was 34.2±7.3, while 301(66.4%) had secondary education, 86.1% of the respondents were in a monogamous marriage, and 422(93.2%) earned above the minimum wage. Thirty(6.6%) respondents did not know when their wives registered for ANC, majority (98.1%) of them did not know the duration of their wives' labour, and

**Table 1: Socio-demographic characteristics of respondents**

| Variables | Frequency (n=453) | Percent |
|---|---|---|
| **Age (years)** | | |
| 15-34 | 248 | 54.7 |
| 35-54 | 200 | 44.2 |
| 55-74 | 5 | 1.1 |
| **Level of education** | | |
| No formal education | 5 | 1.1 |
| Primary | 123 | 27.2 |
| Secondary | 301 | 66.4 |
| Tertiary | 24 | 5.3 |
| **Marital status** | | |
| Married | 425 | 93.8 |
| Separated | 14 | 3.1 |
| Divorced | 14 | 3.1 |
| **Family type** | | |
| Monogamous | 390 | 86.1 |
| Polygamous | 63 | 13.9 |
| **Monthly income** | | |
| Below minimum wage | 31 | 6.8 |
| Above minimum wage | 422 | 93.2 |

**Table 2: Knowledge of men on wife's index pregnancy and delivery**

| Variables | Frequency (n=453) | Percent |
|---|---|---|
| **Time wife registered for ANC** | | |
| Within the first 3 months | 218 | 48.2 |
| Between 3 months and 6 months | 126 | 27.8 |
| Between 6 months-9 months | 79 | 17.4 |
| Do not know | 30 | 6.6 |
| **Place of delivery of last baby** | | |
| Health facility | 359 | 79.2 |
| TBA | 4 | 0.9 |
| At home | 67 | 14.8 |
| Do not know | 23 | 5.1 |
| **Knowledge of duration of wives' labour** | | |
| Know | 9 | 1.9 |
| Don't know | 444 | 98.1 |

**Table 3: Knowledge of men on pregnancy care, common danger signs and appropriate place of delivery**

| | Yes (%) | No (%) | Don't Know (%) |
|---|---|---|---|
| **Knowledge on ANC (n=453)** | | | |
| Only one ANC visit is required before delivery | 61 ( 13.5) | 363 ( 80.1) | 29 (6.4) |
| ANC is only necessary when women are ready to deliver? | 134 (29.6) | 283 (62.5) | 36 (7.9) |
| A minimum of four ANC visits is required for every pregnant woman | 277 (61.1) | 63 (13.9) | 113 ( 24.9) |
| **Knowledge on at risk pregnancy (n=453)** | | | |
| Women who are less than 16 years of age | 353 (77.9) | 80 (17.7) | 20 (4.4) |
| Women who had lost one or more pregnancies | 323 (71.3) | 96 (21.2) | 34 (7.5) |
| Women who had previous caesarean section | 307 (67.8) | 129 (28.5) | 17 (3.8) |
| Women who are more than 35 years of age | 243 (53.6) | 146 (32.2) | 64 (14.1) |
| Women who have had more than four children | 188 (41.5) | 206 (45.5) | 59 (13.0) |
| Women who are extremely short statured | 174 (38.4) | 136 (30.0) | 143 (31.6) |
| **Knowledge of common danger signs in pregnancy (n=453)** | | | |
| Severe headache | 212 (46.8) | 132 (29.1) | 109 (24.1) |
| Loss of consciousness | 47 (10.4) | 322 (71.1) | 84 (18.5) |
| Vaginal bleeding (haemorrhage) | 46 (10.2) | 377 (83.2) | 30 (6.6) |
| Increased appetite | 194 (42.8) | 205 (45.3) | 54 (11.9) |
| **Appropriate place for managing complications during pregnancy and delivery (n=453)** | | | |
| Health facility | 411 (90.7) | 32 (7.1) | 10 (2.2) |
| Mission house | 301 (66.4) | 133 (29.4) | 19 (4.2) |
| At home by TBAs | 192 (42.4) | 244 (53.9) | 17 (3.8) |
| Traditional healers | 92 (20.3) | 312 (68.9) | 49 (10.8) |

**Table 4: Men's attitudes towards pregnancy care and delivery care**

| Characteristics (n=453) | Agree n (%) | Disagree n (%) | Don't Know n (%) |
|---|---|---|---|
| It is compulsory for a woman to obtain permission from her husband at times of emergencies before seeking care | 387 (85.4) | 43 (9.5) | 23 (5.1) |
| The choice of ANC providers should be a joint decision between husband and wife | 366 (80.8) | 64 (14.1) | 23 (5.1) |
| A man should ensure food and environmental hygiene of his wife | 362 (79.9) | 47 (10.4) | 44 (9.7) |
| A man should accompany his wife for antenatal visits? | 351 (77.5) | 96 (21.2) | 6 (1.3) |
| A man should ensure that his wife uses Insecticide Treated Net during pregnancy? | 341 (75.3) | 87 (19.2) | 25 (5.5) |
| Male support will speed up delivery of the wife during labour? | 293 (64.7) | 65 (14.3) | 95 (21.0) |
| A man may not necessarily be present during his child's delivery? | 161 (35.5) | 259 (57.2) | 33 (7.3) |
| A man may not necessarily help with household chores when his wife is pregnant or after delivery | 151 (33.3) | 283 (62.5) | 19 (4.2) |
| A man should not discuss health problems with his wife? | 150 (33.1) | 270 (59.6) | 33 (7.3) |

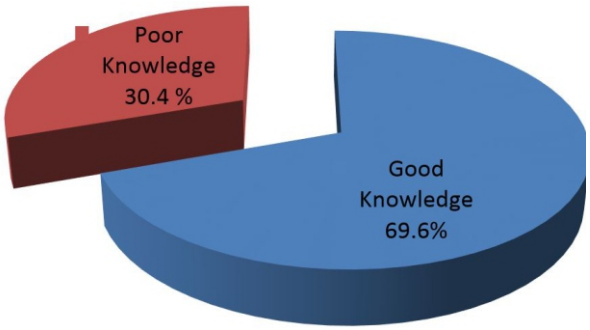


Figure I: Overall knowledge of pregnancy and delivery care

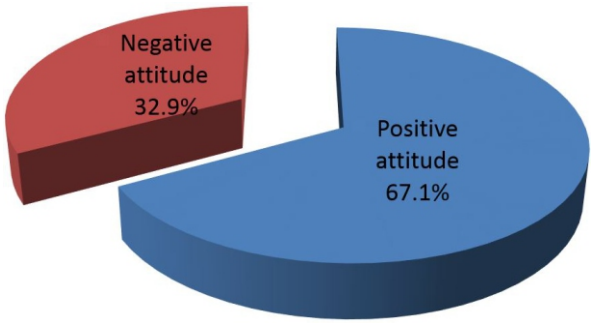


Figure II: Overall attitude on pregnancy and delivery care"

23(5.1%) did not know the place of delivery of their last baby. Table 2

Table 3 shows that 277(61.1%) of the respondents had the knowledge that pregnant women should have a minimum of four ANC visits before delivery, while 80(17.7%) and 146(32.2%) respectively said women less than 16 and above 35 years do not necessarily need to receive specialist care during pregnancy. About 28% were not in support of specialist care for those who had previous caesarean section. Majority (71.3%) and 45.5% respectively said that women who had lost one or more pregnancies and who have had more than four children should have specialist care.

There was poor knowledge of common danger signs in pregnancy among the men. Majority (83.2% and 71.1% respectively) said vaginal bleeding and loss of consciousness are not danger signs in pregnancy while 42.8% respondents said increased appetite is a danger signs. The danger sign most frequently identified was severe headache (46.8%). Also, high fever was reported by 26.3% of the respondents, yellowness of the eyes (19.4%), leg swelling (17.9%) and high blood pressure (21.4%). The least frequently mentioned danger signs were

convulsions (7.7%), vaginal bleeding (10.2%) and loss of consciousness (10.4%). Health facility (90.7%) and mission houses (66.4%) were mostly mentioned as the preferred place for managing complications during pregnancy and delivery. Table 3.

Figure I showed that a higher proportion of respondents had good knowledge on pregnancy and delivery care issues. Respectively, 21.2%, 59.6% and 80.8% respondents were not of the opinion that men should accompany their wives to ANC, discuss health problems and make joint decisions on ANC providers. More than half (57.2%) do not think it is necessary to be present at wives delivery while 9.5% felt it was compulsory for women to obtain permission from their husbands even at times of emergencies (table 4). As shown in figure II, 304 (67.1%) of the men had positive attitude towards pregnancy and delivery issues.

## Discussion

A high proportion of the respondents had good knowledge (69.6%) of pregnancy and delivery issues, which could have been due to their relatively high level of education, as two-third of the men had completed secondary education. A later study among married men in Ibadan also reported high level of good knowledge of pregnancy related care.[14] This high level of knowledge is expected to also translate into better attitude and increased male involvement in pregnancy and delivery care. Studies have found that men with greater levels of knowledge about sexual and reproductive health are more likely to be involved in their wives' pregnancies and newborn care, thus leading to better health outcomes.[15,16] This our finding is unlike that reported by Singh et al in a study among married men in rural areas of Varanasi, India where only 9.8% knows about minimum four antenatal visits and 26.9% were aware about the health related problems during pregnancy.[17]

There is however relatively poor level of awareness of danger signs in pregnancy among our respondents. This is consistent with finding by Sekoni and Owoaje in Southwest Nigeria among fathers aged 15-65 years, and the study in Varanasi, India where majority of the respondents had poor knowledge about danger signs in pregnancy.[17,18] The low level of knowledge of dangers signs of pregnancy can be contributory to the first level of delay which plays a role in the high levels of maternal mortality observed in many developing countries. There is need to target health education at helping men who are the decision makers to identify danger signs in pregnancy and during delivery.

The most frequently reported danger sign among the men in this study was severe headache, followed by high fever; while the least frequently mentioned danger signs were convulsions, vaginal bleeding and loss of consciousness. This compares to a study by Mersha among men in Northwest Ethiopia in which the commonest mentioned danger sign during pregnancy was high fever, followed by severe abdominal pain, while the lest mentioned were loss of consciousness and blurred vision.[19] Fever and headache being symptoms common to many febrile illnesses would explain why these were easily identified by the men. Respondents in the study in Varanasi, India however mentioned slow movement of the fetus as a main danger sign followed by excess vomiting and pain in lower abdomen.[17]

The study shows that most of the respondents were aware of birth complications experienced by their wives during their last pregnancy. From this study, more than two-third of the men reported that their wives did not go through prolonged labour, and majority of them ascertained that their wives did not experience stillbirth nor did their wives experience any problem or complication after delivery. Our study however did not also elicit this information from the spouses of the respondents, which would have allowed us to assess if the men had correct knowledge of the birth complications possibly experienced by the wives during pregnancy and childbirth.

This study showed many respondents have positive attitude towards pregnancy and delivery care. This is similar to findings in study in Benin, Nigeria, where four-fifth of the men had a positive attitude towards maternity care.[20] Majority of our respondents agree that a man should accompany his wife to ANC visit, that male support is necessary during labour, and that the man has to be present during his child's delivery. This is expected to have a positive effect on male involvement in pregnancy and delivery care, as well as the women's utilisation of reproductive health services, especially during

the pregnancy, delivery and after the baby is born.
Majority of our respondents affirmed that it is compulsory for a woman to obtain permission from her husband even at times of emergencies before seeking care in a health facility. This emphasises the traditional patriarchal nature and co-existing gender inequality in the African society, which have serious adverse effect on women's utilization of reproductive health services. Further studies are required to explore the socio-cultural issues around male perception and involvement in pregnancy and delivery care of their wives. Our study findings should be interpreted carefully in view of the fact that we utilised only one LGA in the study, and this may limit its generalizability.

**Conclusion and recommendation**

This study shows that the respondents had good knowledge and attitude, which is expected to have a positive effect on male involvement in pregnancy care and delivery care. There is however relatively poor level of awareness of danger signs in pregnancy by men. Strategies for involving men in maternal health services should aim at raising their awareness about emergency obstetric conditions. As male perception and involvement becomes more widely studied, more information will also become available as to how accurately these behaviours correspond to positive health outcomes. Educational efforts on maternal care should be directed at the men, to ensure they give appropriate support to their pregnant and nursing wives, so as to ensure better outcomes for both mother and child, and the family.

**Conflict of interest**

The authors have nothing to declare.

**References**


1. Oguntunde O, Nyenwa J, Yusuf FM, Dauda DS, Salihu A, Sinai I. Factors associated with knowledge of obstetric danger signs and perceptions of the need for obstetric care among married men in northern Nigeria: a cross-sectional survey BMC Pregnancy Childbirth. 2019 Apr 11;19(1):123. doi: 10.1186/s12884-019-2271-1.PMID: 30971216
2. Yargawa J, Leonardi-Bee J. Male involvement and maternal health outcomes: systematic review and meta-analysis. J Epidemiol Community Health. 2015; jech-2014-204784. doi:10.1136/jech-2014-204784
3. WHO. World Health Statistics 2020: Monitoring Health for the SDGs, Sustainable Development Goals. Geneva: World Health Organization; 2020.
4. National Population Commission (NPC) [Nigeria] and ICF International. Nigeria Demographic and Health Survey; 2018. Abuja: NPC and ICF International. 2018.
5. WHO. Trends in Maternal Mortality: 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization; 2019.
6. UNFPA. International Conference on Population and Development Program of Action 1994. Available online from: http://www.un.org/popin/icpd/conference/offeng/poa.html (Accessed on September 13, 2020].
7. Davis J, Vyankandondera J, Luchters S, Simon D, Holmes W. Male involvement in reproductive, maternal and child health: a qualitative study of policymaker and practitioner perspectives in the Pacific. Reproductive Health, 2016; 13(1):81. doi.org/10.1186/s12978-016-0184-2
8. Kura S, Vince J, Crouch-Chivers P. Male involvement in sexual and reproductive in the Mendi district, Southern Highlands province of Papua New Guinea: a descriptive study. BMC Reprod Heal 10, 46. 2013. doi.org/10.1186/1742-4755-10-46
9. Sharma S, Kc B, Khatri A. Factors influencing male participation in reproductive health: a qualitative study. Journal of Multidisciplinary Healthcare. 2018;11:601¬–608. doi:10.2147/JMDH.S176267
10. Sharma V, Leight J, Giroux N, AbdulAziz F, Nyqvist MB. "That's a woman's problem": a qualitative analysis to understand male involvement in maternal and newborn health in Jigawa state, northern Nigeria. Reproductive Health. 2019; 16:143. doi.org/10.1186/s12978-019-0808-4
11. Chattopadhyay A. Men in maternal care:

evidence from India. J Biosoc Sci. 2012;44(2):129-153. doi:10.1017/S0021932011000502
12. Araoye MO. Research Methodology with statistics for Health and Social Sciences, 1st ed, Nathadex Publishers, Ilorin. 2004.
13. Carter M. Husbands and maternal health matters in rural Guatemala: wives' reports on their spouses' involvement in pregnancy and birth [published correction appears in Soc Sci Med. 2003 Feb;56(4):899]. Soc Sci Med. 2002;55(3):437-450. doi:10.1016/s0277-9536(01)00175-7
14. Falade-Fatila O, Adebayo AM. Male partners' involvement in pregnancy related care among married men in Ibadan, Nigeria. Reprod Health. 2020;17(1):14. Published 2020 Jan 28. doi:10.1186/s12978-020-0850-2
15. Ampt F, Mon MM, Than KK, Khin MM, Agius PA, Morgan C et al. Correlates of male involvement in maternal and newborn health: a cross-sectional study of men in a peri-urban region of Myanmar. BMC Pregnancy and Childbirth, 2015; 15:122. doi: 10.1186/s12884-015-0561-9.
16. Tweheyo R, Konde-Lule J, Tumwesigye NM, Sekandi JN. Male partner attendance of skilled antenatal care in peri-urban Gulu district, Northern Uganda. BMC Pregnancy Childbirth 10, 53. 2010. doi.org/10.1186/1471-2393-10-53
17. Singh R, Kumar A, Kansal S. Involvement of male spouse in care during pregnancy in rural areas of district Varanasi. J Family Med Prim Care. 2021;10(6):2177-2183. doi:10.4103/jfmpc.jfmpc_1425_20
18. Sekoni OO, Owoaje ET. Male knowledge of danger signs of obstetric complications in an urban city in South west Nigeria. Ann Ib Postgrad Med. 2014;12(2):89-95. PMID: 25960699; PMCID: PMC4415391.
19. Mersha AG. Male involvement in the maternal health care system: implication towards decreasing the high burden of maternal mortality. BMC Pregnancy and Childbirth, 2018; 18:493. doi: doi.org/10.1186/s12884-018-2139-9
20. Erhabor JO, Okpere E, Lawani LO, Omozuwa ES, Eze P. A community-based assessment of the perception and involvement of male partners in maternity care in Benin-City, Nigeria. J Obstet Gynaecol. 2021;41(3):401-407. doi:10.1080/01443615.2020.1753182.