Preventive Care in Nursing and Midwifery Journal
http://dx.doi.org/10.61186/pcnm.14.3.32

Article

Perceived husbands' support during pregnancy and childbirth among women in yenagoa metropolis, bayelsa state

Jessica Agada Jimmy[1*], Arunibebi Lamawal Lawrence[2], Maureen B Nkamare[1], Wonyinbarakemi Ladi Berefagha[1]

[1]Department of Maternal and Child Health Nursing, Niger Delta University, Wilberforce Island, Bayelsa State
[2]Department of Nursing Science, Ambrose Ali University, Ekpoma, Edo State

Article Info

Article history:
Received: 3 Jul 2024
Accepted: 12 Jul 2024
Published: 16 Jul 2024
Keywords:
Pregnancy**,** Social support, Prenatal care, Parturition, Maternal health

***Corresponding author:**
Department of Maternal and Child Health Nursing, Niger Delta University, Wilberforce Island, Bayelsa State

Email: jessicaagada@ndu.edu.ng

Abstract

Background: Pregnancy and childbirth are critical periods that require substantial support from husbands, especially in regions like Africa, where maternal and infant health outcomes remain a challenge. Insufficient support from husbands can contribute to increased maternal morbidity and mortality.

Objectives: This study evaluates the levels of perceived emotional, physical, and informational support provided by husbands to their wives during pregnancy and childbirth.

Methods: A cross-sectional study was conducted with 445 postpartum women selected through proportionate stratified random sampling from a population of 1057 attending health centers. Data were collected using a researcher-developed questionnaire and analyzed using SPSS version 25.0.

Results: The mean (SD) total score of perceived husband support was 2.86 (0.62), perceived emotional support was 3.18 (0.24), perceived physical support was 2.87 (0.40), and perceived informational support was 2.37 (0.49). There was a significant association between the level of support provided and husbands' education ($p< 0.001$).

Conclusion: While emotional and physical support from husbands was generally sufficient, informational support was lacking. To improve maternal outcomes, targeted interventions such as including husbands in antenatal education programs should be implemented to enhance their involvement during pregnancy and childbirth.

Copyright © 2024, This is an original open-access article distributed under the terms of the Creative Commons Attribution-noncommercial 4.0 International License which permit copy and redistribution of the material just in noncommercial usages with proper citation

Implications of this paper in nursing and midwifery preventive care:

- Health care professionals and midwives should consider promoting informational support in husbands in designing supportive and preventive programs for pregnant women.
- Midwives can prevent adverse clinical outcomes by encouraging husbands to participate and provide physical and emotional support during pregnancy and childbirth.

Introduction

Pregnancy and childbirth are said to be a highly joyful experience [1] for most women, and a universally celebrated event that calls for singing, dancing, merriments, and exchange of gifts [2]. However, it is also considered a period of great vulnerability for women [3] emphasizing the need for physical and psychological support from their husbands. The lack of such support can lead to possible maternal and infant health complications [4].

Globally, every year, 529,000 maternal deaths occur, with 99% of these deaths happening in developing countries. In 2020, almost 800 women died daily from preventable causes related to pregnancy and childbirth, equating to a maternal death occurring approximately every two minutes. Between 2000 and 2020, the maternal mortality ratio (MMR) dropped by about 34% worldwide, but nearly 95% of all maternal deaths in 2020 still occurred in low and lower-middle-income countries [5]. Maternal mortality remains a significant public health challenge, largely because many women lack access to quality healthcare and often face neglect at home during pregnancy and childbirth [6]. This neglect can stem from the need for women to obtain permission from their husbands before seeking care, even in emergencies, when their husbands may not be available or willing. Additionally, women may have to engage in strenuous work

during pregnancy and rely entirely on their husbands for financial support [7].

Al-Mutawtah et al. specifically noted that neglect from husbands has significantly negatively impacted women's health during pregnancy and childbirth [8]. Some studies have shown that husbands often decide on matters such as the timing and conditions of pregnancy, sexual relations, family size, and whether their spouses will utilize available healthcare services [9]. Thus, men are key players influencing reproductive outcomes, both positively and negatively, directly and indirectly [10]. Therefore, the involvement of men in reproductive and maternal health matters can foster a partnership between husband and wife, leading to improved pregnancy outcomes [11].

Unfortunately, in Africa, research has shown that pregnancy and childbirth continue to be viewed as solely women's issues [12]. It is rare to find a male companion or partner accompanying a woman to antenatal care, and in many communities, it is unthinkable for a man to be present in the labor room during delivery [13]. Thus, involving husbands in reproductive health issues is a crucial aspect of the shift from family planning to a broader reproductive health agenda, recognizing husbands as significant participants in these programs [14]. Therefore, this study seeks to assess perceived husbands' support during pregnancy and childbirth among wives accessing infant welfare services in selected health centers in Yenagoa metropolis, in Yenagoa city council, Bayelsa state.

Methods

This cross-sectional study was conducted from August 2023 to July 2024. This study aimed to assess the husbands' perceived support during pregnancy and childbirth among women accessing infant welfare services at selected health centers in Yenagoa metropolis, Bayelsa State. Yenagoa, the state capital of Bayelsa State in southern Nigeria, covers an area of 706 km² and had a population of 353,344 according to the 2006 census.

The four health centers were selected using stratified random sampling and the health centers were FSP Clinic/Health Center, Agudama-Epie Health Center, Amarata Health Center, and Azikoro Health Center. The population for this study consists of 1057 women receiving infant welfare services and are under 20 years and above in the four selected health centers. A power analysis method was used for a known population, and a sample size of 445 was used for this study. The researchers equally used the proportionate method of sampling to arrive at the following number of respondents for each health center; FSP 155, Agudama-Epie 106, Azikoro 98, and Amarata Health Center 85 respectively using the proportionate sampling method. The inclusion criteria are married postpartum women aged 20 years and older (because this is the age range where women are most often married off to their husbands) who accessed postnatal services at selected health centers in Yenagoa Metropolis, emotional and physical stability at the time of the study, in availability at time of data collection. Emotional and physical stability at the time of study, Data were collected using a researcher-constructed questionnaire, developed based on an extensive literature review on men's involvement and the study's three stated objectives. The questionnaire was divided into four sections:

Section A: Questions on socio-demographic information about the wives (Questions 1-5).

Section B: Questions on socio-demographic information on respondents' husbands (Questions 6-10).

Section C: Questions on emotional involvement (Questions 11-22).

Section D: Questions on instrumental/physical involvement (Questions 23-35).

Section E: Questions on informational involvement (Questions 35-45).

In total, 40 questions were included. Section A consisted of close-ended questions, while Sections B, C, and D comprised questions on a rating scale of 1, 2, 3, and 4, represented as Never (N), Seldom (Se), Sometimes (S), and Always (A), respectively. Respondents were asked to tick the option that best described their disposition regarding each matter. In Sections B, C, and D, a mean score of 2 or above was considered a positive response, while a mean score below 2 was considered a negative response. A final mean score of 2.5 or above in each section was considered support, while a mean score below 2.5 indicated insufficient support.

The face and content validity of the questionnaire were established by two experts from the Faculty

of Nursing at Niger Delta University, who reviewed a draft copy of the questionnaire along with the study's purpose and research questions. They assessed the relevance of the content, clarity of statements, and logical accuracy of the instrument.

Reliability was tested using twenty copies of the questionnaire distributed at the Igbo gene Health Center. The split-half reliability technique was applied, using the Spearman-Brown prophecy formula, resulting in a correlation coefficient of r = 0.88. The interpretation of the results was based on the decision rules for the various areas of support: <2.50 = lack of support, ≥ 2.50 < 3.00 = moderate support, and ≥ 3.00 = adequate support.

Eight research assistants, two from each health center, assisted in data collection. They were trained on the study's purpose and objectives, the content of the research instrument, and the proper methods for interpreting and collecting data from respondents. These assistants were proficient in English, Epie, and Ijaw languages, allowing them to communicate effectively with participants. The researcher and assistants explained the study's purpose to the respondents, and information was gathered from those who consented to participate.

Literate participants were given the questionnaire to complete, which was collected immediately upon completion. For illiterate participants, the content of the questionnaire was read aloud, and their responses were recorded by the assistants. Data collection occurred on clinic days (Wednesdays and Fridays) before the arrival of the doctors to minimize distractions. The data collection process lasted four weeks, and all administered questionnaires were successfully retrieved, resulting in a 100% response rate.

Data generated from this study were analyzed using the Statistical Package for Social Sciences (SPSS) version 25.0. The data were analyzed using descriptive statistics including mean (standard deviation), frequency (percentage), and chi-square test. A significance level of < 0.05 was considered.

Ethical approval was obtained from the Research and Ethics Committee of the Ministry of Health, Bayelsa State. Following this approval, the researchers approached the midwives and managers of the various health facilities used in this study to secure administrative permission to collect data from clients during clinic days. Additionally, verbal consent was obtained from the participants.

Results

The majority of women participating in the study were in the age range of 21-30 years (50.80 %). The majority were housewives (33.90 %), Christians (94.60 %), had two children (35.30 %) and had a secondary education level (45.20 %).

The majority of husbands were in the age range of 31-40 years (44.90 %). The majority were public/civil servant (54.80 %), Christians (94.60 %), and had a tertiary education level (51.00 %). Most of the husbands had an income of 50,000 Naira and above (48 %).

The demographic information of the participants in the study are presented in Table 1.

Table 1: Demographic information of participants (N= 445)

Demographic information of women		N	%
Age (year)	21-30	226	50.80
	31-40	162	36.40
	41-50	53	11.90
	51 and above	4	0.90
Occupation	Housewife	151	33.90
	Farming	30	6.70
	Trading	141	31.70
	Public/civil servant	123	27.60
Religion	Christianity	421	94.60
	Muslim	16	3.60
	African traditional religion	8	1.80
Number of children	One	69	15.50
	Two	157	35.30
	Three	114	25.60
	Four and above	105	23.60
Highest level of education completed	No formal education	34	7.60
	Primary education	53	11.90
	Secondary education	201	45.20
	Tertiary education	157	35.30
Demographic information of husbands		**N**	**%**
Age (year)	21-30	61	13.70
	31-40	200	44.90
	41-50	124	27.90
	51 and above	60	13.50
Occupation	Farming	30	6.70
	Trading	171	38.40
	Public/civil servant	244	54.80
Religion	Christianity	421	94.60
	Muslim	16	3.60
	African traditional religion	8	1.80
Highest Level of Education completed	No formal education	17	3.80
	Primary education	16	3.60
	Secondary education	185	41.60
	Tertiary education	227	51.00
Monthly level income (Naira)	No response	36	8.00
	10,000-20,000	31	7.00
	20,000-30,000	36	8.00
	30,000-40,000	58	13.00
	40,000-50,000	71	16.00
	50,000-above	213	48.00

***N: Number**

The overall mean (SD) score of perceived husband support by postpartum women during pregnancy and childbirth was 2.86 (0.62).

Table 2 above summarizes data on the level of emotional support husbands provided to their wives during pregnancy and childbirth. In terms

of the husband's emotional support, "told you how happy he was about the pregnancy and childbirth" has the highest mean (SD) [3.55 (1.21)] and "stayed and encouraged or praise your efforts during labor in labor room" had the lowest mean (SD) [3.18 (0.66)].

Table 2: Wives' responses to husbands' emotional support (N= 445)

Items	A (%) 4	S (%) 3	Se (%) 2	N (%) 1	Mean (SD)
Told you how happy he was about the pregnancy and childbirth	293 (65.8)	110 (24.7)	37 (8.3)	5 (1.1)	3.55 (1.21)
Discussed health problems with you for possible solutions	206 (46.3)	172 (38.7)	52 (11.7)	15 (3.4)	3.28 (0.84)
Prayed with you or alone about the pregnancy and labour	286 (64.3)	103 (25.4)	29 (6.5)	17 (3.8)	3.50 (1.18)
Expressed enthusiastic anticipation of the birth of the child	202 (45.4)	150 (33.7)	69 (15.5)	24 (5.4)	3.19 (0.79)
Felt for the movement of the unborn child	188 (42.2)	146 (32.8)	69 (15.5)	42 (9.4)	3.08 (0.72)
Condoned your behaviour during mood swings	164 (36.9)	163 (36.6)	89 (20.0)	29 (6.5)	3.04 (0.64)
Admired your physical changes during pregnancy	199 (44.7)	125 (28.1)	76 (17.1)	45 (10.1)	3.07 (0.75)
Occasionally touched and caressed you	188 (42.2)	164 (37.9)	71 (16.0)	22 (4.9)	3.16 (0.75)
Spent quality time with you	190 (42.7)	147 (33.0)	76 (17.1)	32 (7.2)	3.11 (0.73)
Reminded and encouraged you to take your medicines	225 (50.6)	131 (29.4)	65 (14.6)	24 (5.4)	3.25 (0.88)
Reassured you when you were worried about your state	218 (49.0)	148 (33.3)	56 (12.6)	23 (5.2)	3.26 (1.86)
Stayed and encouraged or praise your efforts during labour in a labourRoom	181(40.7)	71 (16.0)	34 (7.6)	159 (35.7)	2.62 (0.66)
Sub-Scale Grand Mean					3.18 (0.24)

A: Always; S: Sometimes; Se: Seldom; N: Never

Table 3 delineates the level of physical support provided by husbands to their wives during pregnancy and childbirth. The overall physical support scale has a grand mean of 2.87 with a standard deviation of 0.40. In terms of husband's physical support, "made prescribed drug/medicine available for you " has the highest mean (SD) [3.30 (0.98)], and " joined you in some exercises in preparation for labour " had the lowest mean (SD) [2.49 (0.35)].

Table 3: Wife responses to husbands' physical support (N=445)

Items	A (%) 4	S (%) 3	Se (%) 2	N (%) 1	Mean (SD)
Physical support					
Took you to antenatal clinic	136 (30.6)	121 (27.2)	67 (14.1)	121 (27.2)	2.61 (0.45)
Attended antenatal clinic to you	51 (11.5)	84 (18.9)	59 (13.3)	251 (56.4)	1.85 (0.14)
Joined you in some exercises in preparation for labour	93 (20.9)	147 (33.0)	92 (20.7)	113 (25.4)	2.49 (0.35)
Assisted in the household chores	174 (39.1)	163 (36.6)	74 (16.6)	34 (7.6)	3.07 (0.69)
Bought fruits and/or food you craved for	226 (50.8)	138 (31.0)	60 (13.5)	21 (4.7)	3.28 (0.89)
Gave up some foods and/or drinks to support your lifestyle changes	172 (38.7)	133 (29.9)	77 (17.3)	63 (14.2)	2.90 (0.63)
Arranged or paid for your transport to the antenatal clinic and back home	260 (58.4)	89 (20.0)	36 (80.1)	60 (13.5)	3.23 (1.04)
Made prescribed drug/medicine available for you	248 (55.7)	113 (25.4)	53 (11.9)	31 (7.0)	3.30 (0.98)
Assisted you to ensure protection for the unborn baby	219 (49.2)	126 (28.3)	78 (17.5)	22 (4.9)	3.22 (0.84)
Shopped for the unborn baby	201 (45.2)	113 (25.4)	45 (10.1)	86 (19.3)	2.96 (0.76)
Planned ahead of time for the emergency situation during pregnancy or labour	164 (36.9)	116 (25.8)	50 (11.6)	116 (26.1)	2.73 (0.58)
Massaged your legs and back to relieve discomfort during pregnancy	147 (33.0)	137 (30.8)	92 (20.7)	69 (15.5)	2.81 (0.52)
Stayed around while you were in the labour room	197 (44.3)	71 (16.0)	53 (11.9)	124 (27.9)	2.77 (0.73)
Sub-Scale Grand Mean					2.87 (0.40)

A: Always; S: Sometimes; Se: Seldom; N: Never

Table 4 shows the findings on the informational support provided by husbands to their wives during pregnancy and childbirth. In terms of husband's informational support, " discussed with you the place of delivery " has the highest mean (SD) [2.96 (0.72)], and "bought magazines on pregnancy and labour for you" had the lowest mean (SD) [1.76 (0.15)].

Table 4: Wife responses to husbands' informational support (N= 445)

Items	A (%) 4	S (%) 3	Se (%) 2	N (%) 1	Mean (SD)
Informational support					
Read and discussed about pregnancy and/or the birth process with you	114(25.6)	118(26.5)	57(12.8)	156(35.1)	2.43(0.36)
Read and discussed the care of infants and young children with you	118(26.5)	123(27.6)	64(14.4)	140(31.5)	2.49(0.38)
Discussed information from the doctor with you	151(33.9)	129(29.0)	78(17.7)	87(19.6)	2.77(0.53)
discuss with you the type of health provider to seek	164(36.9)	138(31.0)	79(17.8)	64(14.4)	2.90(0.60)
Discussed with you the place of delivery	195(43.8)	11(24.9)	65(14.6)	74(16.6)	2.96(0.72)
Watched videotapes on pregnancy or labour and discussed key issues with you	66(14.8)	69(15.5)	68(15.3)	242(54.4)	1.91(0.13)
Listened to audiotapes on pregnancy or childbirth and discuss key issues with you	65(14.6)	68(15.3)	66(14.8)	246(55.3)	1.89(0.13)
Discussed with your information on Pregnancy or labour from Internet	48(10.8)	69(15.5)	75(16.9)	253(56.9)	1.80(0.10)
Bought magazines on pregnancy and labour for you	56(12.6)	55(12.4)	61(13.7)	273(61.3)	1.76(0.15)
Reminded you of the date of Ante natal care check-up	183(41.1)	108(24.3)	49(11.0)	105(23.6)	2.83(0.67)
Sub-Scale Grand Mean					2.37(0.49)

A: Always; S: Sometimes; Se: Seldom; N: Never

There is a significant association between the level of education of wives and the husbands' support received during pregnancy and childbirth ($p < 0.001$) (Table 5).

Table 5: Chi-square test of association between the level of education of wives and the husbands' support received (N = 445)

	Level of education							
	No formal education	**Primary**	**Secondary**	**Tertiary**	**Total**	**Df**	**X^2**	**p**
Support provided	7	29	131	110	277	3	29.59	<0.0001
Insufficient support	26	24	71	47	168			
Total	33	53	201	157	445			

Discussion

The current study aimed to evaluate the extent of emotional, physical, and informational support provided by husbands to their wives during pregnancy and childbirth.

The findings of this study revealed that husbands provide adequate emotional support to their wives during pregnancy and childbirth. This is not surprising, given that the identified indicators of emotional support-such as praying with their wives or alone about the pregnancy, discussing health problems for possible solutions, expressing happiness about the pregnancy, tolerating mood swings, spending quality time together, and offering reassurance during moments of worry-are practices or virtues often encouraged, applauded,

and preached among Christians. Since nearly all respondents identified as Christians and believed in these core virtues, they were more likely to practice these behaviors, resulting in the observed adequate emotional support [15].

A notable positive response was recorded regarding husbands' involvement in labor room activities. Specifically, many women indicated that their husbands "stayed and encouraged or praised their effort during labor." This active presence and encouragement from husbands during labor is significant, as it deviates from traditional norms that often exclude men from the labor room. The positive feedback on this indicator can be attributed to the growing advocacy and policy shifts in maternal health that encourage male participation in childbirth processes. Furthermore, the strong emotional support observed among husbands, such as showing excitement and anticipation for the child's birth, may be influenced by religious or cultural beliefs, especially considering the predominantly Christian context of the study population. This finding aligns with previous research [16] suggesting that emotional support from husbands contributes significantly to reducing stress and anxiety for women during labor, ultimately promoting positive maternal health outcomes. However, despite these positive responses, husbands' physical and informational support remains limited, indicating the need for more targeted interventions to bridge these gaps.

The findings of the study equally revealed that husbands provided moderate physical support to their wives during pregnancy and childbirth. The probable explanation for this moderate physical support recorded could be that since the majority of the husbands had secondary level education and tertiary education, they (husbands) know the importance of physically supporting women when they are pregnant. However, there is no empirical study to corroborate or contrast this finding.

This has probably made it easier for them to give support to their wives during pregnancy and childbirth activities - assisted in the household chores; massaged her to relieve discomfort; assisted her in ensuring protection for the unborn baby; stayed around while she was in the labour room; etc. Though the support was moderate, it is still laudable and at the same time not quite expected considering the Epie culture on the role of men in the family. It is especially worthy of note that the husbands helped in household chores. This may imply a move toward a change in family dynamics, which would be a factor in determining the shared responsibility that is being advocated in the family.

Notably, although, in one of the indicators of physical support – ''attended an antenatal clinic with her'' – it was observed that the majority of the husbands do not attend the antenatal clinic with their wives. This may be attributed to the husband's and societal perception of such acts; the belief that pregnancy is a 'woman's affair;' the belief that a man's role is primarily to provide financial support for the woman's care; the man's perception that he will be viewed as "jealous" by the community if he comes to the clinic with his pregnant wife. Evidence [13] shows that male companions for antenatal care are rare and, in many communities, it is also unthinkable to find a male accompanying a woman to the labor room during delivery. This finding is in contrast with the work done by Lewis et al, [9] on the role of husbands in maternal health and safe childbirth in rural Nepal: a qualitative study, where the findings showed that pregnancy (prenatal) care as a modern healthcare practice is a shared domain by husbands and their pregnant wives. Husbands held major external tasks in clinical spheres (for example, paying medical bills) as well as to some extent domestic chores (for example, making dishes) during the pregnancy and delivery period of their wives.

Based on the findings of this study, there is a lack of informational support provided by husbands during pregnancy and childbirth. Positive responses (indicating support) were recorded on only four out of ten items used as indicators of informational support. An overall mean informational support level of less than 2.5 indicates a lack of support. Therefore, the study showed that husbands do not offer adequate informational support to their wives during pregnancy and childbirth.

These findings align with those of Jodibala et al., [17], who conducted a study to assess family support and its effect on pregnancy outcomes in terms of maternal and neonatal health in a selected hospital in Ludhiana, India. They found that husbands provided more emotional support to

mothers during pregnancy compared to other areas of support.

The lack of informational support observed among the respondents is surprising, given that the majority of the respondents' husbands had at least a secondary or tertiary education. This lack of support may be attributed to the cultural perception that pregnancy and childbirth are primarily women's affairs, which may influence men's actions and activities. Additionally, the fact that husbands did not attend antenatal care services with their wives may have left them unaware of the information needed to provide adequate support. Another possible reason is the general non-involvement of men in maternal and childcare issues, resulting in a lack of access to necessary materials and an insufficient emphasis on the importance of providing their wives with relevant information about pregnancy and childbirth.

In this study, positive responses were recorded for some indicators of informational support, such as discussing information from the doctor with their wives, discussing with their wives the type of healthcare provider to seek, and discussing the place of delivery. A probable explanation for this could be that, in Africa, men often make major decisions for their families. While the wife may suggest, the husband typically makes the final decisions on important matters, including those related to pregnancy and childbirth.

This finding aligns with Iliyasu et al, [18] who studied the prevalence and risk of domestic violence among pregnant women in northern Nigeria. They found that men often decide on the timing, conditions, sexual relations, family size, and whether or not their spouses will utilize available healthcare services, particularly during pregnancy and childbirth. The similarity in findings can be attributed to the cultural context in Nigeria, where decision-making is generally regarded as a man's role.

Finally, this study revealed a significant association between wives' level of education and the support they received from their husbands. This may be related to the inquisitive nature that education instills in individuals. With the majority of respondents (wives) being educated to at least the secondary/high school level, they are likely more empowered to ask for various forms of support—emotional, physical, and informational—from their husbands. Additionally, their level of education may make them more capable of recognizing supportive gestures from their husbands.

This finding is consistent with the work of Zhang et al, [19] who reported on the impact of education level on marital satisfaction and provided evidence from China showing that education level can affect marital satisfaction.

The strength of this study lies in its use of an appropriate research design and sampling methods, which helped to eliminate bias. However, the major constraint encountered by the researchers was the lack of empirical findings in the study area to support the findings. As a result, there was no basis for comparison of the research findings with other studies in the locality.

Conclusion

From the findings of this study, the following conclusions were made: Husbands provided adequate support to meet the emotional needs of their wives during pregnancy and childbirth. Husbands provided moderate support to meet the physical needs of their wives during pregnancy and childbirth. Husbands do not provide support to ensure their wives get adequate information for safe pregnancy and childbirth. Husbands' support is a major factor in preventing maternal and child morbidity and mortality, therefore it should be encouraged. Based on the findings of this study, the following recommendations were made: Firstly, governments, Non-governmental organizations, and health facility managers should create an enabling environment (for example through policy and physical structures) to give opportunities to husbands of laboring women to be physically present in the labor room to encourage and praise the effort of their wives during labor; Secondly, governments and Non-governmental organizations should embark on wide-spread campaigns and enlightenment of the general public on the benefits of husbands' support to wives during pregnancy and childbirth, and lastly, books, videos, audio tapes, and magazines on the processes of pregnancy and childbirth written in a lay man's language should be provided and jingles on radio or television used to encourage men to purchase these materials, read or view

them with their wives and discuss key issues with them.

Ethical Consideration

Ethical approval for this study was obtained from the Research and Ethics Committee of the Ministry of Health, Bayelsa State, following the ethical guidelines stipulated in the Declaration of Helsinki and the Nigerian Code of Health Research Ethics. The researchers ensured that all procedures adhered to these ethical principles, which emphasize respect for persons, beneficence, non-maleficence, and justice. Written administrative permission was secured from the unit heads of the selected health centers. Informed consent was obtained verbally from all participants, ensuring they were adequately informed about the study's purpose, methods, and their rights to withdraw at any stage without repercussions. Participants' confidentiality and anonymity were maintained throughout the study, and all data collected were securely stored in compliance with the ethical standards outlined by the approving committee.

Acknowledgments

The authors would like to thank all respondents who participated in this study.

Conflict of interest

The authors hereby declare that there are no conflicts of interest.

Funding

Nil.

Authors' contributions

JJA, ALL, NM, and BW contributed in designing the study. JJA, NM, and BW collected the data. ALL analyzed the data. JJA wrote the final draft. All authors read and approved the version for submission.

References

1. Moniri M, Rashidi F, Mirghafourvand M, Rezaei M, Ghanbari-Homaie S. The relationship between pregnancy and birth experience with maternal-fetal attachment and mother-child bonding: a descriptive-analytical study. BMC Psychology. 2023;11(1):426. https://doi.org/10.1186/s40359-023-01475-x .
2. Felisian S, Mushy SE, Tarimo EAM, Kibusi SM. Sociocultural practices and beliefs during pregnancy, childbirth, and postpartum among indigenous pastoralist women of reproductive age in Manyara, Tanzania: a descriptive qualitative study. BMC Womens Health. 2023;23(1):123. https://doi.org/10.1186/s12905-023-02277-4
3. Akter M. Physical and Psychological Vulnerability of Adolescents during Pregnancy Period as Well as Post Traumatic Stress and Depression after Child Birth. . Open Journal of Social Sciences. 2019;7:170-7. Available at : https://doi.org/10.4236/jss.2019.71015
4. Arisukwu O, Igbolekwu CO, Oyekola IA, Oyeyipo EJ, Asamu FF, Osueke ON. Spousal support during pregnancy in the Nigerian rural context: a mixed methods study. BMC Pregnancy Childbirth. 2021;21(1):772. https://doi.org/10.1186/s12884-021-04135-3
5. WHO. Global progress in tackling maternal and newborn deaths stalls since 2015: COVID-19, rising poverty, and worsening humanitarian crises intensify pressure on already overstretched maternity and newborn health services (Departmental update. 2024. Available at: https://www.who.int/news/item/09-05-2023-global-progress-in-tackling-maternal-and-newborn-deaths-stalls-since-2015--un
6. Fernandez Turienzo C, Newburn M, Agyepong A, Buabeng R, Dignam A, Abe C, et al. Addressing inequities in maternal health among women living in communities of social disadvantage and ethnic diversity. BMC Public Health. 2021;21(1):176. https://doi.org/10.1186/s12889-021-10182-4
7. Mudi H, Dutse U, Belaid L, Ansari U, Omer K, Gidado Y, et al. Impact of home visits to pregnant women and their spouses on gender norms and dynamics in Bauchi State, Nigeria: Narratives from visited men and women. Global Health Promotion. 2021;28(3):59-65. https://doi.org/10.1177/1757975920986703
8. Al-Mutawtah M, Campbell E, Kubis HP, Erjavec M. Women's experiences of social support during pregnancy: a qualitative systematic review. BMC Pregnancy Childbirth. 2023; 23(1): 782. https://doi.org/10.1186/s12884-023-06089-0.
9. Lewis S, Lee A, Simkhada P. The role of husbands in maternal health and safe childbirth in rural Nepal: a qualitative study. BMC Pregnancy Childbirth. 2015;15:162. https://doi.org/10.1186/s12884-015-0599-8.
10. Yargawa J, Leonardi-Bee J. Male involvement and maternal health outcomes: systematic review and meta-analysis. Journal of Epidemiology and Community Health. 2015; 69(6): 604-12. https://doi.org/10.1136/jech-2014-204784.
11. Gibore NS, Bali TAL. Community perspectives: An exploration of potential barriers to men's involvement in maternity care in a central Tanzanian community. PLoS One. 2020;15(5):e0232939. https://doi.org/10.1371/journal.pone.0232939
12. Bulndi LB, Ireson D, Adama E, Bayes S. Sub-Saharan African women's views and experiences of risk factors for obstetric fistula: a qualitative systematic review. BMC Pregnancy Childbirth. 2022; 22(1):680. https://doi.org/10.1186/s12884-022-05013-2.
13. Nyamai PK, Matheri J, Ngure K. Prevalence and correlates of male partner involvement in antenatal care services in eastern Kenya: a cross-sectional study. Pan African Medical Journal. 2022; 41: 167. https://doi.org/10.11604/pamj.2022.41.167.31535.

14. Shabanikiya H, Darman A, Ghavami V, Moghri J, Varmaghani M, Noughabi JJ, et al. Men's involvement in family planning programs and associated factors from the perspective of women in Afghanistan; a case study. Midwifery. 2023; 117: 103575. https://doi.org/10.1016/j.midw.2022.103575.
15. Bible TH. King James Version. World Wide Printing Dallas: Texas 75137 USA Franchrix Publisher; 2008. https://www.thekjvstore.com/.
16. Kashaija DK, Mselle LT, Mkoka DA. Husbands' experience and perception of supporting their wives during childbirth in Tanzania. BMC Pregnancy Childbirth. 2020;20(1):85. https://doi.org/10.1186/s12884-019-2715-7
17. Jodibala H, Usha S, H.K S. Family support and its effects on outcome of pregnancy in terms of maternal and neonatal health. Nursing and Midwifery Research Journal. 2010;6(4):137-45. https://doi.org/10.21859/psj.16.3.48.
18. Iliyasu Z, Abubakar IS, Galadanci HS, Hayatu Z, Aliyu MH. Prevalence and risk factors for domestic violence among pregnant women in northern Nigeria. Journal of Interpersonal Violence. 2013; 28(4): 868-83. https://doi.org/10.1177/0886260512455872.
19. Zhang C, Liang J. The impact of education level on marital satisfaction: Evidence from China. Social Sciences & Humanities Open. 2023;7(1). 1-7. https://doi.org/10.1016/j.ssaho.2023.100487.