ORIGINAL RESEARCH

Acceptability of couple antenatal education: A qualitative study of expectant couples attending antenatal clinics in Blantyre, Malawi

Maria Chifuniro Chikalipo[1,2], Ellen Mbweza Chirwa[2], Adamson Sinjani Muula[1,3]

1. University of Malawi – School of Public Health and Family Medicine, College of Medicine, Blantyre, Malawi
2. University of Malawi, Kamuzu College of Nursing, Blantyre, Malawi
3. University of Malawi – Africa Center of Excellence in Public Health and Herbal Medicine, College of Medicine, Blantyre, Malawi

Date Received: 07-Mar-2018
Revision Received: 06-Jun-2018
Date Accepted: 10-Jun-2018
Correspondence:
Maria Chifuniro Chikalipo
(mchikalipo@kcn.unima.mw)

https://dx.doi.org/10.4314/mmj.v30i3.3

Abstract

Background
Few studies have assessed the effectiveness and acceptability of male partner involvement in antenatal education. Yet, male involvement in antenatal care including antenatal education has been proposed as a strategy to improve maternal and neonatal outcomes. We conducted this study to add to the body of knowledge on acceptability of male partner involvement in antenatal education following an intervention.

Methods
This was a cross sectional qualitative study using 18 in-depth interviews with 10 couples, 5 women from the couples group and 3 nurse-midwife technicians. Participants were purposively selected and interviewed between July and November, 2017. The study setting was South Lunzu and Mpemba Health Centres and their catchment areas. All interviews were audiotaped, transcribed verbatim and translated from Chichewa into English. Data were coded in Nvivo 10.0 and analyzed thematically.

Findings
We identified three themes: benefit of content received; organization of couple antenatal education appropriate for male partner involvement; and delivery of couple antenatal education incentive for male involvement and learning. However, some improvements were suggested regarding content, organization and delivery of the education sessions.

Conclusion
Couple antenatal education was acceptable to the couples and the facilitators in terms of content received, organization and delivery. Nevertheless, adding naming the baby to the list of topics, creating a special day for couples to attend antenatal education and providing a readable leaflet are likely to make couple antenatal education more user friendly.

Key words: acceptability, male involvement, couple, antenatal education

Background

Male involvement in maternal health services, including antenatal education, has been advocated for internationally with the understanding that men are likely to fulfill their supportive roles as partners if they are made to know about parenthood[1]. This has seen establishment of couple health programmes in western countries such as antenatal classes for expectant parents[2,3]. The classes are geared towards providing information to prospective parents on childbirth and parenting skills with the aim of improving maternal and neonatal outcomes. However, the classes have often not been male friendly, ultimately negatively affecting participation of male partners[1,4,5]. Studies have documented factors which can facilitate male partner participation in antenatal education. Some of the reported factors include: conducting expected fathers' antenatal classes facilitated by a fellow man[6,7]; providing antenatal education to a mixed gender class[8]; conducting the education in evening hours and weekends[9,10]; and use of drama[11]. These studies have documented improved male partner participation in antenatal education and acceptability of male partner involvement in antenatal education. However, many of these studies have been conducted in high income countries with a few in Africa, where male involvement in maternal health is an emerging practice[12,13]. Researchers have argued that for initiatives and interventions to meet intended purposes, needs of the beneficiaries and later on acceptability of the intervention should be determined[14,15]. Acceptability is the extent to which people delivering or receiving a healthcare intervention consider it to adequately satisfy a need or standard[14]. In this study, we describe acceptability as the extent to which the education is perceived to have met the learning needs of couples from the perspectives of facilitators of the couple antenatal education and couples themselves. While acceptability can be determined at different stages of the intervention, participants' attitudes towards intervention, perceived relevance and suitability of the intervention can be best assessed post intervention[14]. Intervention studies on male involvement and the acceptability of interventions in antenatal care, particularly antenatal education, are scarce in Africa[16,17,18]. Therefore, this study aims to assess acceptability of couple antenatal education in Malawi following an intervention.

This study is part of a randomized control trial (RCT), registration number PACTR 201710002636253. The RCT was informed by an exploratory qualitative baseline study whose focus was to identify learning needs of couples to determine acceptability, feasibility and effectiveness of couple antenatal education. The baseline study led to the development of a tailor-made curriculum and a leaflet which were used during

the intervention. The intervention involved providing two antenatal education sessions to two groups. The groups were couples who belonged to the intervention arm and married women who belonged to the standard of care arm. The education was conducted during two consecutive antenatal visits in the second trimester. The areas which were covered during the first session were on pregnancy and childbirth while the last session focused on postnatal care. We conducted this study to assess the acceptability of couple antenatal education after the participants had received the education sessions.

Methodology

Study design

We conducted an exploratory cross sectional qualitative study from July to November 2017, among couples and nurse-midwife technicians to explore and describe their perceptions towards couple antenatal education sessions. The design enabled us to have a deeper understanding of the acceptability of couple antenatal education[19].

Study setting

The study was conducted in Blantyre district in the Southern region of Malawi. The sites selected were Mpemba and south Lunzu (SL) because this is where we had piloted specifically-designed couple antenatal education sessions. The sites were chosen as they were semi-urban sites representing rural and urban populations. Additionally, the sites were likely to have less mobile population for the intervention and had adequate clientele.

Sampling and selection of study participants

A purposive sample of ten couples, 5 women from the couple group and 3 nurse-midwife technicians who had direct experience with couple education were recruited. The couples and the women participated as learners while the nurse-midwife technicians were facilitators of the education sessions. Variations such as age, gravidity and educational level were considered during the recruitment of couples in both sites in order to obtain diverse views and experiences. The eligibility of the participants depended on willingness to participate in the interviews; ability to provide informed consent, having attended the antenatal education sessions twice as couples or having facilitated couple antenatal education sessions almost the entire period of the RCT which was from January to November 2017, in case of the nurse-midwife technicians.

Data collection

In-depth interviews were conducted using the pretested, semi-structured interview guides containing open ended questions. All in-depth interviews were conducted in Chichewa except for three in English. Each interview lasted 30 to 60 minutes.

One broad question guided the interviews: "What would you say about the couple antenatal education sessions you attended/facilitated?" We probed further based on the three domains which constitute learning needs which are content, organization and delivery of the education[20]. Probes were on relevance of the content received, how the participants felt about the organization and delivery of the education and how the sessions could be made better. We conducted interviews among the following groups: couples who had received two antenatal education sessions and women from the couple group. These women were interviewed separately to allow them to express their views freely in the absence of their male partners[17]. The final group comprised nurse-midwife technicians who were facilitators of the couple education.

After each interview, main issues arising were noted and summarized to the participants for data verification. Data were triangulated across the three data sources which were couples, women and nurse-midwife technicians to minimize biases[21]

Data management and analysis

The audiotaped recordings were transcribed verbatim. Transcripts in Chichewa were translated into English and were verified by the co-investigators. Another researcher fluent in both languages helped the translation in order to preserve the meaning of the content. The transcripts were managed in NVivo 10.0. The data were analyzed using thematic analysis framework which allows the data to be coded deductively and inductively[22] in order to gather information related to acceptability of couple antenatal education. We read all the transcripts against the recorded data and selected significant issues. One transcript was then deductively and inductively coded and was then reviewed by co-investigators and an independent researcher. Next, we agreed that the codes be used for indexing the rest of the transcripts while paying attention to emerging codes. The codes were then organized into various categories centering on the domains of the learning needs. Additionally, the codes were further categorized based on their similarities, differences and recurrence across the data set and were then brought together as overarching themes. The themes were presented as results after the verification process where the themes were checked against the recorded information.

Ethical considerations

The study received ethical approval from the College of Medicine Research Ethics Committee (COMREC) (Certificate No P.11/151821). The Blantyre District Health Office, which is responsible for the management of health services for Mpemba and SL Health Centres, also granted permission. We explained the purpose of the study to the potential participants and none of the participants refused participation. We obtained informed consent, or witnessed consent with a thumb print if illiterate, prior the interviews from all the participants who met the criteria. All the participants accepted the interviews to be digitally recorded.

Results

Participant characteristics

In total, we conducted 3 interviews with nurse-midwife technicians (1 male and 2 females), 10 with couples and 5 separate interviews with women from the couple group. The mean age for the women in the couple group was 29 years and 33 for men. Most of men and women attended primary education with 2 couples who attended secondary education and 1 couple attended tertiary education. There were 4 primigravida, 2 multigravida and 2 grand multigravida. All women except 1 were housewives by occupation. Most of the men ran small scale businesses and some were casual labourers; 2 men were formally employed. The ages of the nurse-midwife technicians were 30, 35 and 43 years. Years of experience in antenatal care for the nurse-midwife technicians ranged from 4 to 10 years.

We identified the themes based on the three domains related to learning needs which are content, organization and delivery of antenatal education. The themes are presented with subthemes as follows:

Benefits of content received

There was a general feeling among the participants and facilitators of couple antenatal education that the content covers all maternal health essentials.

"The sessions were good … all the things an expectant couple has to know were there ... at the end of the sessions most men would come and say how good sessions were because most of them thought that it would just be a waste of time. They were even feeling sorry for those who did not come..." (Facilitator 1)

Participants further felt that providing couple antenatal education sessions was beneficial to both men and women for various reasons.

A. Couple antenatal education enhances communication, decision making and male partner support.

Participants expressed that because couples received the education together, both partners became knowledgeable. Additionally, it was easier to communicate and make decisions together; ultimately, the number of misunderstandings declined. Furthermore, male partners were able to provide the needed support. All men, women and facilitators were of the view that men were able to provide such support as the men trusted the information.

"I heard everything for myself … I was therefore making an effort to follow and do whatever we were taught because I knew it was true. I therefore decided to take part in the preparations for the birth of our child and also supported my partner in any way possible." (Husband 9)

"It [couple education] helped us because we received the education together … we used to discuss and agree on what to do." (Wife 1)

Additionally, couples felt that the information gathered enabled the participants to dispel some traditional myths associated with pregnancy.

"People believe a woman with swollen feet is expecting a male child. After receiving the education, I realized that swollen feet is a danger sign." (Husband 10)

Although the content taught was adequate, a facilitator of the education expressed that name of the baby should be added to birth preparedness content.

"The information that needs to be included on birth preparedness should be the name of a child, which should aid in registration and preparation of birth certificates." (Facilitator 3)

Furthermore, another facilitator observed that couples did not pay much attention to postnatal topics during the sessions.

"Things to do with the postnatal period … most people did not show interest, more especially on how to care for the woman and the baby after delivery." (Facilitator 1)

Organization of couple antenatal education, realistic for male partner involvement

Participants gave their opinions about the day couple education was conducted, the number of sessions and the length of each session.

A. Friday, a suitable day for couple antenatal education

Couples, women and the facilitators expressed that Friday was a good day for education as it was near the weekend and it was easier for men to escort their spouse and attend the sessions.

"Friday was a good day because he (partner) was able to get time off from work. It was probably easy for him to be allowed time off because it was towards weekend." (Wife 5)

"Friday was a very good day … because one can do things that can support his family during the other days…" (Husband 3)

"Friday was ideal because most men can find time on this day as they would have completed most of the work they had to do that week" (Facilitator 1)

Frequency of antenatal education for a male partner

Participants reported that the two sessions were adequate because couples managed to receive the needed information and it was more realistic for men to attend two sessions.

"They [two sessions] were enough because men are busy most of the time." (Wife 6)

"I also believe that by assigning four sessions for the women and two for men they had also considered this as well." (Husband 6)

However one of the facilitators felt that in order to increase participation of men in antenatal education, the number of sessions should be reduced from two to one and the duration of the session should be long enough to allow the couples have all the necessary information.

"…..maybe it could just be one session because men are busy and should be long enough to cover everything." (Facilitator 3)

Duration for couple antenatal education appropriate for couples

Couples, women and facilitators expressed gratification with the duration for the first and second sessions which took approximately sixty and thirty minutes respectively. Participants felt that the duration was reasonable and men could accompany their spouses.

"The length of each session was adequate … Some people came from far and they were able to return home in good time." (Husband 2)

However, all participants felt that while the sessions themselves were not time consuming, waiting times were.

"The time was alright but the problem is people come at different times while you have come here early and you had to wait for others." Wife 8

Delivery of couple antenatal education incentive for male involvement

Participants also expressed their views on how the couple education was delivered.

A. Leaflet encouraged male partner's participation in antenatal education

Facilitators, couples and women accepted the leaflet provided and stated that it reminded them of what they learnt. Additionally, male participants reported that the leaflet motivated them to accompany their spouses for antenatal care.

"The leaflet reminded people what was discussed at the antenatal clinic…" (Facilitator 3)

"I was encouraged to attend the education sessions with my wife after reading the leaflet … If she didn't bring the leaflet … I could have refused to accompany her to the clinic." (Husband 2)

Despite the leaflet's benefits, facilitators felt that that for it to be more user friendly for both literate and illiterate people, it should be in colour with large font sizes and graphics.

"The leaflet needs to be in colour … and should have drawings to help people who can't read understand the messages … the letters should be bigger for people who didn't go far with education to read easily." (Facilitator 3)

Group couple learning facilitates learning

Women, couples and facilitators explained that group learning was a source of strength and it encouraged participation and learning. Furthermore, 1 male participant reported that group learning was interactive, stimulating and exciting and provided opportunities to create social networks which facilitated learning among male partners beyond the scheduled antenatal education sessions.

"I also feel that it is good to have couple group education. It encourages unity among couples and people understand better … A couple may be scared if invited to attend the education session alone … we formed some sort of friendship and we were able to discuss … (outside) the group whenever we met as friends." (Husband 5)

"There was a difference between teaching a group of couples and a single couple. A couple that was taught as a unit was not free and open as compared to teaching a group of couples." (Facilitator 2)

Despite the merits associated with group learning, all the participants observed that generally men were more open than women. A male participant observed that women were not actively participating when issues to do with sex were discussed.

"Women were open when topics on nutrition in pregnancy and swollen feet were discussed and were shy and quiet when topics on sex were discussed." (Husband 10)

Discussion

The study has demonstrated that couple antenatal education was acceptable as it brought awareness and improved communication among couples, which led to male partners' support on safe motherhood practices such as birth preparedness and complication readiness (BP/CR). The findings are comparable with other studies which have demonstrated that male partners' knowledge of maternal health issues translated into joint decision making and male partners' support in maternal health practices[23-25]. Although adding name of a baby to the existing content on BP/CR would be good practice, this should be done with caution. Birth preparedness and complication readiness aim at reducing delays which contribute to poor access to maternal health services among women, ultimately reducing maternal mortality[26,27]. Adding the baby's name to the strategy may not assist in achieving the purpose of the strategy. We propose that the content for BP/CR should be split into two areas which should be birth and emergency preparation during maternity period. The former should cover preconception care including HIV testing and counselling, material for birth/birth kit, companion identification and naming the baby. The latter should focus on issues which can directly promote handling obstetrics emergencies, such as identifying a facility for delivery, keeping money and identifying a mode of transport[28,29]. We have omitted identifying blood donors because the Malawi Blood Transfusion Service is responsible for that.

In our study, participants were not interested in postpartum topics. This is contrary to findings from western countries where men and women wanted to learn postnatal issues during antenatal classes such as baby care skills, breastfeeding problems and relationships[25,30,31]. This lack of interest could be because, during pregnancy, people might only be interested in the pregnancy, delivery and its outcomes and might not see the significance of learning postnatal issues during pregnancy. Evidence suggests that postnatal services are almost nonexistent[32,33] and that a substantial number of women and neonates are likely to die during the postpartum period in low income countries[34], including Malawi. We therefore suggest that postnatal services need to be revived and strengthened in Malawi and additional sessions on postnatal issues should be provided to couples , a practice which exists in some high-income countries[25,35].

In this study, Friday was recommended as the best day for couple antenatal education. This is congruent to findings from other studies which have reported men wanting to participate in antenatal education on weekends[10,20] . Another reason for the participants to prefer the education to be conducted on Fridays could have stemmed from the fact that antenatal clinics in our study settings conduct HIV tests on Mondays and Tuesdays which were booking days for the study sites respectively. Therefore, conducting the sessions on Fridays would not be associated with HIV testing, which has been reported widely as a factor hindering men from participating in antenatal care[4,36,37]. Participants felt that the duration of the sessions was adequate in the sense that they received relevant information in a short period of time. Conversely, some studies have reported sessions lasting less than one hour in sub-Saharan Africa[38-41]. Spending less time on antenatal education may have affected delivery of relevant topics during antenatal education thereby defeating one of the core aims of focused antenatal care strategy which promotes provision of health education and counselling to improve outcomes[38,42]. However, participants felt that waiting time for the other study participants and other antenatal services made them stay long periods at the facility. Time has been reported in several studies as a factor in deterring male partner involvement in antenatal care[4,36,43]. We suggest that couple antenatal education sessions should be scheduled on a determined day, which should be solely for this purpose. Antenatal sessions are usually conducted during morning hours. We suggest that the services be available all day in order to spread the flow of clients and prevent delays. Couples recommended group education; this coincides with other studies as it facilitates learning, creation of relationships and normalizes the presence of men in an environment traditionally dominated by women[44-46].

In the study, women were not as interactive as men, especially when issues to do with sexuality were discussed; a finding which was also documented by Davis[17]. The reason for men being more active could be that they had little knowledge of childbirth and they wanted to learn more or verify what they knew. The compared lack of active female participation could also have arisen from the fact that women felt that they had escorted men and the messages were meant for men. Another reason could be that women did not want to talk to avoid embarrassing and disrespecting their spouses[47]. However, even in women-only groups, women have been reported to be ashamed and reserved when issues about sexuality are discussed during antenatal education[48]. This could be associated with power relations between the providers and clients who assume roles of health information giver and health information recipient respectively. We propose that providers should induce interaction during antenatal education sessions by creating relevant scenarios which can stimulate participation rather than focusing on giving of information in a didactic manner, as is the case

in some African countries[49]. The leaflets distributed during education sessions facilitated learning as evidenced in other studies which have reported print material as a reliable source to facilitate learning[50,51]. Additionally, the leaflets might have acted as an invitation letter, which is known to encourage male partner participation in antenatal care[52].

Strengths and limitations of the study

Men, women and facilitators were included in the study which allowed the researchers to have diverse views of the acceptability of couple antenatal education. Furthermore, the interviews were conducted with couples and some women from the couple group participated in separate interviews in order to enrich our data and to reduce bias. However, one limitation was that participants may have given biased responses since they were beneficiaries of the interventions and that the interviewer (MC) also participated in the intervention.

Conclusion

Couple antenatal education was acceptable among the couples and the facilitators in terms of content received, organization and delivery of the education sessions. Nevertheless, adding a discussion of the name of the baby on the list of topics, creating a special day for antenatal education and provision of a readable leaflet are likely to make couple antenatal education user friendly.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

The first author (MCC) planned and developed study methods, interview guides, conducted the in-depth interviews, analyzed the data and drafted the manuscript. The co-authors (ASM and EMC) supervised the planning, development of the study methods and data analysis and contributed to and supervised the manuscript writing. All authors read and approved the final manuscript.

Acknowledgements

"This research was supported by the Consortium for Advanced Research Training in Africa (CARTA). CARTA is jointly led by the African Population and Health Research Center and the University of the Witwatersrand and funded by the Carnegie Corporation of New York (Grant No--B 8606.R02), Sida (Grant No:54100029), the DELTAS Africa Initiative (Grant No: 107768/Z/15/Z). The DELTAS Africa Initiative is an independent funding scheme of the African Academy of Sciences (AAS)'s Alliance for Accelerating Excellence in Science in Africa (AESA) and is supported by the New Partnership for Africa's Development Planning and Coordinating Agency (NEPAD Agency) with funding from the Welcome Trust (UK) (Grant No: 107768/Z/15/Z) and the UK government," The statements made and views expressed are solely the responsibility of the fellow. We would also like to thank the study participants.

References

1. May C, Fletcher R. Preparing fathers for the transition to parenthood: Recommendations for the content of antenatal education. Midwifery. 2013;29(5):474-478. https://doi.org/10.1016/j.midw.2012.03.005

2. Koushede V, Brixval CS, Thygesen LC, Axelsen SF, Winkel P, Lindschou J, et al. Antenatal small-class education versus auditorium-based lectures to promote positive transitioning to parenthood–A randomised trial. PloS One. 2017;12(5):e0176819. https://doi.org/10.1371/journal.pone.0176819

3. 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. https://doi.org/10.1186/1742-4755-11-68

4. Kwambai TK, Dellicour S, Dessai M, Ameh CA, Person B, Achieng F et al. Percepectives of men on antenatal and delivery care service utilization in rural western Kenya: A qualitative study. BMC Pregnancy Childbirth 2013;13:134. https://doi.org/10.1186/1471-2393-13-134

5. Vermeulen E, Miltenburg AS, Barras J, Maselle N, van Elteren M, van Roosmalen J. Opportunities for male involvement during pregnancy in Magu district, rural Tanzania. BMC Pregnancy Childbirth. 2016;16(1):66. https://doi.org/10.1186/s12884-016-0853-8

6. Symon A, Lee J. Including men in antenatal education: Evaluating innovative practice. Evidence Based Midwifery. 2003;1(1):12-20.

7. Friedewald M, Fletcher R, Fairbairn H. All-male discussion forums for expectant fathers: Evaluation of a model. J Perinat Educ. 2005;14(2):8-18. doi: https://doi.org/10.1624/105812405X44673

8. Svensson J, Barclay L, Cooke M. Effective Antenatal Education: Strategies Recommended by Expectant and New Parents. J Perinat Educ. 2008;17(4):33-42. doi: 10.1624/105812408X364152

9. Shia N, Alabi O. An evaluation of male partners' perceptions of antenatal classes in a national health service hospital: Implications for service provision in London. J Perinat Educ Winter 2013;22(1):30-38. doi: 10.1891/1058-1243.22.1.30

10. Turan JM, Nalbant H, Bulut A, Sahip Y. Including expectant fathers in antenatal education programmes in Istanbul, Turkey. Reprod Health Matters.. 2001;9(18):114-125. https://doi.org/10.1016/S0968-8080(01)90098-9

11. Mphonda SM, Rosenberg NE, Kamanga E, Mofolo I, Mwale G, Boa E et al. Assessment of peer-based and structural strategies for increasing male participation in an antenatal setting in Lilongwe, Malawi. Afr J Reprod Health. 2014;18(2):97-104.

12. Yende N, Van Rie A, West NS, Bassett J, Schwartz SR. Acceptability and Preferences among Men and Women for Male Involvement in Antenatal Care. J Pregnancy. 2017;2017. https://doi.org/10.1155/2017/4758017

13. Ditekemena J, Koole O, Engmann C, Matendo R, Tshefu A, Ryder R et al. Determinants of male involvement in maternal and child health services in sub-Saharan Africa: A review. Reprod Health. 2012;9(1):32. https://doi.org/10.1186/1742-4755-9-32

14. Sekhon M, Cartwright M, Francis JJ. Acceptability of healthcare interventions: An overview of reviews and development of a theoretical framework. BMC Health Serv. Res.. 2017;17(1):88. https://doi.org/10.1186/s12913-017-2031-8

15. Wilhelm DJ, Brenner S, Muula AS, De Allegri M. A qualitative study assessing the acceptability and adoption of implementing a results based financing intervention to improve maternal and neonatal health in Malawi. BMC Health Serv. Res. 2016;16(1):398. https://doi.org/10.1186/s12913-016-1652-7

16. Dumbaugh M, Tawian-Agyemang C, Manu A, ten Ashbroek GHA, 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. https://doi.org/10.1186/1471-2393-14-269

17. 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. Reprod Health. 16 2016;13(1):81. doi: 10.1186/s12978-016-0184-2..

18. Kidero EA. Exploring male attitudes on involvement in antenatal care: The case of prevention of mother-to-child transmission of hiv in Athi River Sub-location of Mavoko Constituency, Machakos County, University of Nairobi; 2014. Ava

19. Polit DF, Beck CT. Essentials of nursing research: Appraising evidence for nursing practice: Lippincott Williams & Wilkins; 2013.

20. Simbar M, Nahidi F, Tehrani R, Akbarzadeh A. Educational needs assessment for men's participation in perinatal care. East. Mediterr. Health J. 2011;17(9):689 - 696.

21. Creswell JW. Research design: International student edition: Los Angeles: SAGE; 2014.

22. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006:3(2): 77-101. doi: 10.1191/1478088706qp063oa

23. Mullany BC. Spousal agreement on maternal health practices in Kathmandu, Nepal. J. Biosoc Sci. 2010;42:689 - 693.

24. Wai KM, Shibanuma A, Oo NN, Fillman TJ, Saw YM, Jimba M. Are Husbands Involving in Their Spouses' Utilization of Maternal Care Services?: A Cross-Sectional Study in Yangon, Myanmar. PloS One. 2015;10(12):e0144135. https://doi.org/10.1371/journal.pone.0144135

25. Pålsson P, Persson EK, Ekelin M, Hallström IK, Kvist LJ. First-time fathers experiences of their prenatal preparation in relation to challenges met in the early parenthood period: Implications for early parenthood preparation. Midwifery. 2017;50:86-92. doi: 10.1016/j.midw.2017.03.021

26. Ibrahim MS, Idris SH, Asuke S, Yahaya SS, Olorukooba AA, Sabitu K. Effect of a behavioral intervention on male involvement in birth preparedness in a rural community in Northern Nigerian. Ann Nigerian Med. 2014;8(1):20-27. doi: 10.4103/0331-3131.141025

27. World Health Organization. Working with individuals, families and communities to improve maternal and newborn health. Making pregnancy safer initiative 2010. Available at: http://apps.who.int/iris/bitstream/handle/10665/84547/WHO_MPS_09.04_eng.pdf;jsessionid=8A3072D01EADF4D1BB66D81A1B0D1BCC?sequence=3

28. Weldearegay HG. Determinant factors of male involvement in birth preparedness and complication readiness at Mekelle town: A community based study. Science Journal of Public Health. 2015;3(2):175-180. doi: 10.11648/j.sjph.20150302.14

29. Mgawadere F, Unkels R, Kazembe A, van den Broek N. Factors associated with maternal mortality in Malawi: application of the three delays model. BMC Pregnancy Childbirth. 2017;17(1):219. https://doi.org/10.1186/s12884-017-1406-5

30. Barimani M, Forslund Frykedal K, Rosander M, Berlin A. Childbirth and parenting preparation in antenatal classes. Midwifery. 2018;57:1-7I. https://doi.org/10.1016/j.midw.2017.10.021

31. Brown A, Davies R. Fathers' experiences of supporting breastfeeding: challenges for breastfeeding promotion and education. Matern Child Nutr. 2014;10(4):510-526. doi: 10.1111/mcn.12129

32. Chimtembo LK, Maluwa A, Chimwaza A, Chirwa E, Pindani M. Assessment of quality of postnatal care services offered to mothers in Dedza district, Malawi. Open Journal of Nursing. 2013;3(04):343. doi:10.4236/ojn.2013.34046

33. Kazembe A. Factors influencing the utilisation of postnatal care at one week and six weeks among mothers at Zomba Central Hospital in Malawi. Evidence Based Midwifery. 2011:131.

34. Khan KS, Wojdyla D, Say L, Gülmezoglu AM, Van Look PF. WHO analysis of causes of maternal death: A systematic review. Lancet. 2006;367(9516):1066-1074. doi: 10.1016/S0140-6736(06)68397-9

35. Deave T, Johnson D, Ingram J. Transition to parenthood: the needs of parents in pregnancy and early parenthood. BMC Pregnancy Childbirth. 2008;8(1):30. doi: 10.1186/1471-2393-8-30

36. 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. 2010;10:53. https://doi.org/10.1186/1471-2393-10-53

37. Gombachika BC, Chirwa E, Maluwa A. Sources of information on HIV and sexual and reproductive health for couples living with HIV in rural Southern Malawi. AIDS Res Treat. 2013;2013. http://dx.doi.org/10.1155/2013/235902

38. Magoma M, Requejo J, Merialdi M, Campbell OMR, Cousens S, Filippi V. How much time is available for antenatal care consultations? Assessment of the quality of care in rural Tanzania. BMC Pregnancy Childbirth. 2011;11:64. https://doi.org/10.1186/1471-2393-11-64

39. Anya SE, Hydara A, Jaiteh LE. Antenatal care in The Gambia: Missed opportunity for information, education and communication. BMC Pregnancy Childbirth. 2008;8:9. https://doi.org/10.1186/1471-2393-8-9

40. von Both C, Fleβa S, Makuwani A, Mpembeni R, Jahn A. How much time do health services spend on antenatal care? Implications for the introduction of the focused antenatal care model in Tanzania. BMC Pregnancy Childbirth. 2006;6(1):22. https://doi.org/10.1186/1471-2393-6-22

41. Seljeskog L, Sundby J, Chimango J. Factors influencing women's choice of place of delivery in rural Malawi: An explorative study. Afr J Reprod Health. 2006;10(3):66-75.

42. Akhund S, Avan BI. Development and pretesting of an information, education and communication (IEC) focused antenatal care handbook in Pakistan. BMC Res Notes. 2011;4(1):91. https://doi.org/10.1186/1756-0500-4-91

43. Nyondo AL, Chimwaza AF, Muula AS. Stakeholders' perceptions on factors influencing male involvement in prevention of mother to child transmission of HIV services in Blantyre, Malawi. BMC Public Health. 2014;14(1):691. https://doi.org/10.1186/1471-2458-14-691

44. Premberg Å, Hellström AL, Berg M. Experiences of the first year as father. Scand J Caring Sci. 2008;22(1):56-63. doi: 10.1111/j.1471-6712.2007.00584.x

45. Andersson E, Small R. Fathers' satisfaction with two different models of antenatal care in Sweden–Findings from a quasi-experimental study. Midwifery. 2017;50:201-207. https://doi.org/10.1016/j.midw.2017.04.014

46. Bergström M, Kieler H, Waldenström U. A randomised controlled multicentre trial of women's and men's satisfaction with two models of antenatal education. Midwifery. 2011;27(6):e195-e200. https://doi.org/10.1016/j.midw.2010.07.005

47. Liwewe OM, Kalipeni E, Matinga PU. The cultural context of women's and girls' vulnerability to HIV/AIDS infections in Thyolo and Mulanje district in Malawi. Strong women, dangerous times: Gender and HIV/AIDS in Africa. 2009:53-72.

48. Al-Ateeq MA, Al-Rusaiess AA. Health education during antenatal care: The need for more. Int J Womens Health. 2015; 7: 239–242. doi: 10.2147/IJWH.S75164

49. Taiwo R, Salami F. Discourse acts in antenatal clinic literacy classroom in South-Western Nigeria. Linguistik. 2013;31(2).

50. Marcus C. Strategies for improving the quality of verbal patient and family education: a review of the literature and creation of the educate model. Health Psychol Behav Med. 2014;2(1):482-495. https://doi.org/10.1080/21642850.2014.900450

51. Åsenhed L, Kilstam J, Alehagen S, Baggens C. Becoming a father is an emotional roller coaster–an analysis of first-time fathers′ blogs. J Clin Nurs. 2014;23(9-10):1309-1317. https://doi.org/10.1111/jocn.12355

52. Nyondo AL, Choko AT, Chimwaza AF, Muula AS. Invitation cards during pregnancy enhance male partner involvement in prevention of mother to child transmission (PMTCT) of human immunodeficiency virus (HIV) in Blantyre, Malawi: A randomized controlled open label trial. PLoS One. 2015;10(3):e0119273. https://doi.org/10.1371/journal.pone.0119273