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"That would be good but most men are afraid of coming to the clinic": Men and women's perspectives on strategies to increase male involvement in women's reproductive health services in rural Uganda

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Abstract

In Uganda, increasing male involvement in reproductive health services may improve women's access to care. The purpose of this study was to explore factors influencing male support for women's reproductive health services, and to elicit suggestions for strategies to increase male involvement. In 2008-2009, focus groups (N=76) were conducted with men and women in a rural hospital in Uganda. A content analysis approach was used for data analysis**.** Our findings point to the need for multilevel approaches that educate and mobilize men, while improving quality of care at the facility-level to increase male involvement in reproductive health services.

Keywords

Male involvement; reproductive health; family planning; HIV testing; antenatal care; couples-based counseling

Introduction

In Uganda, efforts to improve outcomes across the spectrum of women's reproductive health (RH) are needed: 34% of women have an unmet need for family planning (FP), the maternal mortality ratio remains high at 438 per 100,000 live births, and women of reproductive age are at an increased risk for HIV/AIDS compared to men (UBOS and IFC International, 2012; UMOH and IFC International, 2012). Public health efforts to improve RH in Uganda and similar settings typically focus on women, however, only 23% of Ugandan women report being the sole rather than joint decision maker regarding their own healthcare (UBOS and IFC International, 2012). With men often in control of decision-making related to

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women's uptake of RH services, as well as the resources needed to access such services (Singh et al., 2013), garnering male support and encouraging male involvement may be an effective strategy to improve the delivery of women's RH services.

Studies consistently demonstrate male support and involvement in women's RH is associated with increased access to services across the continuum of RH care, which in turn can lead to an array of improvements in health for women. Men's influence on women's use of contraceptives has been documented in Uganda and elsewhere (e.g., Eliason et al., 2013; Sileo et al., 2015) and male participation in RH services is associated with women's increased access to services crucial to ensuring safe pregnancy and delivery (Kalembo et al., 2013; Mangeni et al., 2013; Mullany et al., 2007). Male involvement in antenatal care (ANC) is also considered a key strategy to reducing maternal and neonatal mortality by increasing support from spouses in the case of obstetric emergencies (Odimegwu et al., 2005; Kakaire et al., 2012). Furthermore, couples-based HIV counseling and testing (HCT) during ANC compared to women testing alone results in an increased likelihood that women will accept the HIV test and uptake of prevention of mother-to-child transmission (PMTCT) services if found positive (VCT Study Efficacy Group, 2000; Kalembo et al., 2013).

Despite support building for the benefits of male involvement in RH services in the literature, male partner attendance of ANC is low in Uganda and similar settings (Byamugisha R et al., 2010; Msuya et al., 2008). There is a need to understand what factors influence male support for and participation in women's RH services in Uganda, and to explore the feasibility and acceptability of strategies to engage men and incorporate them into couples-based services offered at health care clinics. Ditekemena and colleagues' (2012) review of 31 studies examining determinants of male involvement in maternal and child health services in sub-Saharan Africa found socio-demographic factors (education, income), health service factors (treatment from staff, quality of care, financial and space limitations, wait time), and sociologic factors (cultural norms, beliefs, attitudes, and partner communication) to be the main determinates. However, a limited number of studies involve men in such discussions, and fewer studies explore strategies to improve male involvement. Eliciting both men and women's perspectives can provide a more complete picture of barriers, while highlighting differences between men's actual barriers and women's perceptions. Therefore, the aims of the present study are 1) to explore factors influencing male support for and participation in women's RH services (individual and couples-based ANC, HCT, FP services) and 2) to elicit suggestions for strategies to increase male participation, using focus group discussions with men and women at a rural Ugandan Hospital.

Methods

Setting

The research was conducted between December 2008 and May 2009 at Gombe General Hospital located in rural Butambala District, Uganda, which serves a population of approximately 300,000. The hospital offers active ANC and postnatal care clinics free of charge, including FP counseling and HCT. Pregnant women typically first report for ANC at the 4th month and then monthly until the 8th month, at which point they return every 1 or 2

weeks, although many present late or only attend once or twice. FP education and counseling, including couples-based, is offered during ANC along with other health education. Routine HIV testing is done during their first visit and partner and couples-based testing is strongly encouraged.

Procedure

The study aimed to recruit men and women who (1) had come to the clinic with their partner, and (2) had never come to the clinic with their partner, to ensure a range of participant experience. A research assistant non-systematically approached women and men attending ANC together during their 7th or 8th month ANC visit for participation. Similarly, women in ANC whose partners did accompany them to their visit were recruited during their 7th or 8th month visit. For the focus group with men not attending ANC with their partner, research assistants recruited men from the outpatient clinic at the same hospital. Eligibility criterion included being 18 years or older and belonging to one of the abovementioned groups. For men who had never accompanied their partner to ANC, eligibility criterion also included having children or a partner who is pregnant but having never attended ANC or sought FP with their partner. All participants provided informed verbal consent following the procedures approved by Institutional Review Boards at Rhode Island Hospital and Makerere University School of Public Health and the study was approved by the Uganda National Council for Science and Technology.

Before the focus group discussions, participants completed a questionnaire, including demographic and contraceptive and HIV testing history questions. Using standard focus group procedures (Basch, 1987), an experienced facilitator conducted focus groups in Luganda, audio recording each session. The focus group protocol was adapted from prior work by the research team (Kiene et al., 2013), and included semi-structured, open-ended questions aimed to elicit participant's perceptions of community acceptance of RH services (i.e., individual and couples-based ANC, HCT, FP services), knowledge and attitudes about contraceptives and RH services, attitudes and norms about couples communication, barriers and facilitators for male involvement in couples-based services, and suggestions for interventions to increase male involvement. Each focus group lasted approximately 90 minutes, and was conducted until saturation was reached. Participants were provided refreshments following standard practices in community meetings in Uganda.

Participants

A total of 76 individuals attending outpatient services at Gombe General Hospital participated in one of 14 focus group discussions. Separate focus groups were conducted based on gender and whether participants came with their partner to the clinic: 4 groups of men who had come with partners to ANC (n=10), 2 groups of women whose partner accompanied them to ANC (n=12), 4 groups of women in ANC whose partners did not accompany them (n=28), 4 groups of men who had never attended ANC or sought FP services with their partner (n=26) (recruited from outpatient clinic). Of the 76 participants, 36 were male and 40 female and the average age was 29 (SD = 11.22). There were no cases where both partners of a couple participated in the study. The main tribes represented were the Baganda tribe (82%) and the Banyarwanda tribe (13%). Nearly half were Muslim (47%),

followed by Catholic (28%) or Protestant (21%). Half of the sample had at least some secondary education (51%), while 44% reported at least some primary education and 5% no education. The average monthly income was approximately 30 USD (SD=37, range 0-137 USD) and 3.14 living children were reported (SD=3.37, range 0-15). Sixty percent of participants reported never having used FP, of which 69% had experience with injection, 16% pills, 6% condoms, and 9% with injection plus condoms or pills. Nearly all participants reported ever having an HIV test (96%), with an average of 2.71 total tests reported per participant (SD= 1.88, range 0-10).

Analysis

Focus group audio-recordings were transcribed and then translated into English by two research assistants. A content analysis approach was used for data analysis (Smith, 2000). The authors developed classifications a priori guided by a social-ecological approach (Brofenbrenner, 1977; Stokols, 1992). Given the multi-level factors influencing male involvement identified by our literature review, we chose this model as it recognizes the individual, interpersonal, and broader social and environmental contextual factors that interact to influence health behavior. The data was coded without a priori hypotheses in mind of barriers/facilitators. After a trained research assistant coded the data in consultation with the PIs, the authors identified and agreed upon the major themes. Focus group findings were analyzed across men and women separately and comparisons made between those who attended ANC with their partner versus not.

Results

Multi-level factors influencing male support for and involvement in RH services emerged from the focus group discussions, including factors at the individual, interpersonal, community and cultural, and structural/health system levels. The findings are presented within these categories, followed by suggestions to increase male participation within these same categories. Differences between men and women's findings, and men/women who had versus had not accompanied/been accompanied by their partner to ANC, are noted in text; though few differences were identified in the latter.

Factors influencing male support for and participation in reproductive health (RH) services

Individual

Knowledge, attitudes, and beliefs about contraceptives: All focus groups revealed limited knowledge about contraceptives, especially among men. Traditional (herbal) methods were commonly cited among both men and women as effective, and perceptions about the efficacy of modern methods was mixed. Misinformation about side effects of contraceptive methods were pervasive and cited as a major barrier to male support for FP, including: “endless bleeding,” cancer, infertility, birth defects, swelling in the uterus, weight loss, and condoms getting lost in the body. Men not accompanying their partners generally agreed with the following quotation: “*Family planning made our wives lose interest in sex…we are sure that it is family planning which caused the problem*” (man not accompanying partner, age 26).

Knowledge, attitudes, and beliefs about family planning (FP) and fertility desire: Participants had a high family size preference, ranging from 4-10 for most, but as high as 20 among some men. However, financial constraints were discussed in all focus groups as limiting the number of children "one can manage to care for." Men and women agreed that finances and limited resources were the main reason men were interested in FP, as well as the ability to invest more in the development of each child, as the following quote demonstrates:

> Producing a limited number of children is very important to be able to look after those few children very well to enable them have a good future. The fact is that if you produce very many children whom you cannot take care of in this generation you look a fool.
>
> - Man accompanying partner, age 26

A smaller portion of women in the focus groups, and no men, cited the benefits of FP for women's health as a motivating factor for FP use. Both men and women stated that men's fertility preferences were also influenced by high child mortality and beliefs about the "luck of a child," see representative quotes below:

> "Me, I want to produce ten children, because if you produce few children like three, if God decides to take three of them then you remain with nothing, but if I produce ten if God takes three of them then I remain with the seven children."
>
> – Man not accompanying partner, age 30

> "Me, I want to produce twenty children because every child has his or her own luck, if the first ones have bad luck, the last ones will be lucky and succeed in life."
>
> – Man not accompanying partner, age 24

Belief that male attendance will increase men's knowledge and support for women's health: Women in all focus groups were in strong support of partner participation in couples-based services; they felt it would educate men on RH issues, which would in turn increase the amount of emotional and tangible support (i.e., money, transportation) men give women for FP, pregnancy, and HIV testing, while increasing joint decision making on FP and health issues. Some men also agreed attending ANC to learn about women's RH issues would allow them to better support their wives during pregnancy and make decisions together about FP, as highlighted in the following quotation:

> "It is good, in case a woman gets any problem when she is pregnant, you…take her to the hospital because you know the department where to take her. It is also good for a man to know what is necessary…when you are preparing for the coming baby and all what is involved when the wife is pregnant."
>
> – Man accompanying partner, age 51

Some men, however, only expressed interest in attending clinic appointments to make sure their wives were not using contraceptives without their consent, or to find out the costs of care. Women confirmed that they often ask for more money from their partners to go to the

clinic than it costs in reality, in order to buy other things, noting this as one barrier for women in bringing their partners to the clinic with them.

Attitudes towards HIV testing: Attitudes about HIV testing emerged in the focus group as a key factor influencing women's support of male attendance in the clinic, and in contrast, a barrier for men in all focus groups. As one man accompanying his partner (age 32) stated, "*women are so much [more] interested in HIV testing than men*." Women recognized couples-based counseling would help them with disclosure, getting on HIV treatment together, and using PMTCT services. In contrast, both men and women agreed, as one woman not accompanied by her partner (age 20) stated "…*That would be good but most men are afraid of coming to the clinic…they think they will be forced to test their blood for HIV.*" A fear of being HIV positive, of stigma/discrimination from being assumed positive for being at the clinic, and of marital conflict or separation if positive (discordant couples were said to "always separate") were named as the main reasons men do not want to test.

Lack of interest/perceived importance and beliefs about ANC among men: A lack of interest and perceived importance among men was named as a barrier for male involvement among both men and women in each focus group. As one man not accompanying his partner (age 34) stated, "*Most of the men know that the antenatal clinic is for only pregnant women, men are not even allowed to go there*," the belief that men are not allowed to attend ANC was said to be prevalent in the community, and was expressed as a barrier in each group of men and women who did not or were not accompanied by their partner.

Interpersonal—*Male partner and peer influence.* Participants often formed opinions about contraceptive methods (i.e., efficacy, side effects) through others in the community, citing peers or family members as their main source of information about contraceptives. Additionally, women shared that men often have the decision-making power in the relationship, and men expressed concern about women using contraceptives without their knowledge, which results in conflict between partners.

> "If a man is interested to participate, it is easy for him to encourage his wife to participate, which is different if a woman is interested; it is not very easy to convince a male partner to participate."
>
> – Man not accompanying partner, age 58

> "Yes me I talked about it with my husband one time when I used the injection, but that day he even locked me outside his house blaming me why I used it. He even stopped to buy food regularly and I suffered for the three months that period when I used the injection. Due to that after the three months I didn't use any other family planning method."
>
> – Woman not accompanied by partner, age 19

Spousal communication: The amount of communication between partners about fertility desires, FP, and RH among focus group participants was mixed. About half of participants stated that they and their partner decided on the number of children they wanted together, or jointly discussed FP. However, as demonstrated by this quotation (man not accompanying

partner, age 34), "*Most of us just produce children without discussing about it with your partner*," other participants said there was minimal if any communication between partners.

Extramarital affairs/multiple partners: In each group of men and women, having multiple partners was discussed as a barrier to engagement in couples-based services. It was reported that women with multiple partners often use the time they go to the clinic to visit other partners, and if pregnant, women may fear that her husband could find out that the pregnancy is not his during ANC. Similarly, men with multiple partners or wives do not want to be seen at the clinic with one partner, for fear it will get back to another partner. Both men and women with other partners were said to be especially resistant to couples HCT, for fear of being found HIV positive. As one woman not accompanied by her partner (age 33) stated: *"If you engaged in sex with other men and suspect yourself to be HIV positive, you wouldn't like to come with your partner in the clinic because it might cause misunderstandings in the home*." Among women, a fear that using FP methods would result in their husband finding another partner to produce children with was also identified by both female and male participants as a barrier to contraceptive use among women.

Not wanting to be seen in public with partner: In 6 of the 8 male groups, men discussed not wanting to be seen with their partner in public, due to embarrassment or shame. Reasons for not wanting to be seen with their partners including feeling their wives were not beautiful, or having been forced to marry because of a pregnancy but not out of love. In contrast, as one male participant not accompanying his partner (age 40) stated: "*a big percentage of women are interested to move with their partners to show off that the partner loves her so much*."

Community/Cultural—Other factors identified as influencing family size preference included religion, with participants citing their Muslim, Christian, and Protestant religions as barriers to contraceptive use. As one women accompanied by her partner (age 20) stated about the Muslim religion, "*[the religion] does not encourage family planning it tells us to produce a children throughout life time*."

Structural/Health system—Men and women in all groups stated that men often don't have the time to go to the clinic with their wives due to work and family care responsibilities. As stated by a woman not accompanied by her partner (age 19), "*men who are very busy and those who work from distant areas will not come*." The costs associated with the clinic, including the cost of transportation, was also said to be an additional barrier to male involvement, as described by the following quote: *"raising money for transport for both partners may be a problem*" (woman not accompanied by partner, age 29). Among men who had accompanied their partners to ANC, poor quality of care at the health system level was a major barrier to male involvement; even among men who had not accompanied their partners, the perception of poor quality of care was a deterrent:

> "If the mothers are not happy with the service, like spending a lot of time in the clinic, they come back home cursing and at times they don't want to come back to the clinic. How can they encourage their partners to participate?"
>
> – Man not accompanying partner, age 40

Most commonly cited were the long wait times at the clinic, the need for more privacy at the clinic, and poor treatment from staff, as one male participant accompanying his partner (age 19) stated: "*some nurses are rude, they make patients run away from the hospital*."

Suggestions to increase male participation in couples-based reproductive health (RH) services

Individual—All four groups of men not accompanying their partner, and one group of men accompanying their partner, suggested educating men on the importance of coming to the clinic as a couple, that ANC is not only for women, and the benefits of HIV testing, as well as the availability and efficacy of HIV treatment, as exemplified in the quotes below.

> "If you sensitize them about the importance of coming as a couple and tell them that the charges are not high they will come."
>
> – Man with partner, age 30

> "With family planning men are not aware that they are also needed in the antenatal clinic, they think that this clinic is for only women. You have to sensitize men about it they will attend."
>
> – Man not accompanying partner, age 37

Both men and women suggested community-based approaches for educating men through mass communication campaigns (see community/cultural section below).

Interpersonal—Women whose partners did not accompany them to ANC most commonly suggested interventions to improve communication skills between partners, requesting strategies to use to encourage their partners to attend the clinic with them, as one woman not accompanied by a partner (age 25) suggested: "*Women should tell their partners about what is happening in the clinic in a positive way, and also talk about men attending*."

Community/Cultural—Other suggestions provided by both men and women included community-based approaches, both as a way to increase awareness in the community and to reduce structural barriers to care. This was discussed mainly by men who had not accompanied their partner to ANC. Specific approaches cited included door-to-door mobilization, education campaigns (radio, print), community seminars, and bringing mobile services into the communities.

> "[Encouraging male participation] can only be successful if the services are taken down to the community, not telling the community to come for the services to the hospital. Many people have no time to come to the hospital, some have no transport to come, some are very busy, others have no one to leave at home to take care of children at home in their absence. But if services are taken to the community people can sacrifice some time to attend."
>
> – Man not accompanying partner, age 27

Structural/Health System—Among men, the most common suggestions to encourage men to come to the clinic were at the structural/health system level, including monetary or material incentives. Shortening the wait time at the clinic through general quality

improvement, and incentivizing men to come by allowing "…*couples to be worked on first*," (man accompanying partner, age 51) was suggested in half of focus groups with men accompanying their partner and all who had not accompanied their partner to ANC. Men emphasized the need to improve patient and staff interactions, stating that healthcare providers treated them poorly: "*The medical staff should be trained to huddle patients in a friendly way…to encourage people to participate in these services*" (man not accompanying partner, age 40). Similarly, the need for improved privacy and confidentiality in order to get men to participate in couples-based services was emphasized, as one woman not accompanied by partner (age 23) explained, "*A big percentage of men don't want to come and sit in public in the clinic, but if you get a private room at least for the couples, and you counsel them…to help them not sit in public*." Men requested the staff address men's health concerns and questions, and actively involve men, when they do attend ANC, as exemplified by the following quotations:

> "When couples come, huddle them together so that men also learn how things are done in the clinic and also know what makes women delay in the clinic. But you call men to come to the clinic but we end up not being involved in any activity. And we end up wasting our time to come in the clinic. But involve us in the registration, antenatal check up, getting drugs and all the processes to make us feel that we are also important people in the clinic."
>
> – Man accompanying partner, age 32

> "Some want to come to the clinic with their wives and also get a chance to talk to the midwives about some issues, but when you come to the clinic midwives are very busy they don't give men a chance to talk to them."
>
> – Man not accompanying partner, age 24

Sending women home from the clinic with a personal invitation or "*letter calling them [men] to come to the clinic with their wives*" (man accompanying partner, age 25), and making male partner participation a requirement for treatment were also suggested by both men and women.

Discussion

The present study adds to the literature by identifying factors influencing male support for women's reproductive health (RH) services (individual and couples-based ANC, HCT, family planning [FP] services), men's participation in couples-based RH services, and eliciting strategies to increase participation among men and women in rural Uganda. Overall, women were in strong support of male involvement in such services, and men generally agreed it would be good, but noted multi-level barriers to participation among men in the community at the individual, interpersonal, cultural/community, and structural/health system levels.

This study contributes to the literature by eliciting men's input directly, rather than relying on women's perceptions about men's attitudes and behaviors. Enrolling both men and women allows for a qualitative comparison between groups. Overall, men and women perceived similar barriers and facilitators to male participation, such as structural barriers to

care. However, some key differences in their responses emerged for strategies to increase male involvement; women focused on partner communication and men on quality improvement of the services offered at the clinic. Differences in women and men's motivation for male involvement also emerged, such as more support for couples-based HCT among women than men. Consistent with prior studies, men's fear of HIV stigma, distrust between couples, and having multiple partners were cited as barriers to couples-based HIV testing in our sample (Kiene et al., 2013; Matovu et al., 2014). Though limited in our ability to qualitatively compare findings between those who had and had not attended ANC with their partner due to a smaller number of participants who had ever attended ANC with a partner, we did find that men who had ever attended ANC with a partner were more likely to focus on health system factors compared to those who had not.

These findings highlight the importance of differential framing of health promotion messages for men and women tailored to their specific needs and interests, as has been shown important in other settings (Lundgren et al., 2005). Counseling with men and women should aim to fill the significant knowledge gaps on contraceptive methods and side effects observed in our study and similar research in Uganda (Kabagenyi et al., 2014), while emphasizing the effect of FP on one's ability to invest more in the health and well-being of each child, as well as the immediate and long term benefits of RH services (e.g., ANC, skilled birth attendance) on child survival and well-being. Men who had never accompanied their partners to the clinic were particularly concerned that contraceptive use reduces women's interest in sex, similar to other research (Kabagenyi et al., 2014). Moreover, incorporating men's concerns about their own RH was requested among men in our sample, which may make ANC more engaging and useful for men.

Our findings highlight a need to educate men about their role in women's RH, which supports prior studies in Uganda (Kabagenyi et al., 2014). Community-based approaches to educate and mobilize men were suggested by participants to address a lack of interest, perceived importance, and knowledge that men are allowed in ANC among men in the community. Prior research in other countries have found success in a peer-to-peer approach using “male motivators” to encourage men to attend the clinic (Shattuck et al., 2011). However, in our sample, men and women felt partners and healthcare providers would be most effective in linking men to the clinic. Interventions aimed to improve couples communication (Hartmann, 2012) or link men to couples services through referrals and invitations (Byamugisha et al., 2011; Nyondo et al., 2015) have been successful in similar settings, and should be explored further with this population.

Health system level factors commonly reported in resource-limited settings (long wait times, a lack of privacy, poor treatment from providers) were identified as disincentives for men to come to the clinic, especially when compounded with structural barriers to care (transport, work responsibilities). In prior qualitative research in Uganda, providers themselves name deficits in their own knowledge and skills, and workload as hindering their ability to offer quality FP care (Mugisha and Reynolds, 2008). Innovative approaches to improve counseling conditions within facilities with resource constraints are needed. Participants' suggestions to bring mobile services to the community, and incentives for couples for couples-based services, while reducing structural barriers to care, may reduce these barriers.

There was little awareness of existing couples incentives (moving ahead of line, “safe delivery kits”) in the clinic in which the study took place among participants, suggesting the need to better promote the clinic's couples-friendly services to patients. More work is needed, however, that explores the negative implications such incentives may have on single mothers or women lacking partner support. Offering men's RH services during ANC may improve male engagement in services without marginalizing women who may be facing marital challenges. Similarly, future work is needed to determine what is optimal male involvement (i.e., content, structure, and frequency of male-centered services), and how to make male attendance feasible given work or other structural barriers to care. Offering couples-friendly services on the weekend, or having one ANC visit offering a special package of relevant counseling and services, should be explored as alternatives.

This study has several limitations to report. The data used was qualitative, therefore, the findings cannot be generalized to the broader population. Participants were nonsystematically recruited for participation from ANC and the outpatient clinic, and participants who had and had not come to ANC with their partner were purposely selected. While this sampling approach ensured that we captured both reasons men had and had not come to the clinic, it further restricts our study's generalizability. Moreover, an unequal number of participants were enrolled in these groups, as we encountered less participants who had attended ANC with a partner. Finally, while few cultural-level factors were discussed by participants, many of the factors identified are likely underpinned by upstream cultural norms. For example, commonly accepted definitions of masculinity in Uganda have been shown to discourage male engagement in health services (Siu et al., 2014), highlighting an area for future research.

Conclusion

Male involvement in women's RH may increase access to services across the RH care continuum, which in turn can lead to improvements in health for women. This study identified multi-level factors influencing men's participation in such services, including knowledge, attitudes, and beliefs about family planning, fertility desire, and men's role in women's health, peer and partner factors, and structural and health system factors related to quality of care. There is a need for multi-level interventions to educate and mobilize men around the issue, as well as improvements in the health system related to quality of care.

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References

Basch CE. Focus group interview: an underutilized research technique for improving theory and practice in health education. Health Education Quarterly. 1987; 14:411–448. [PubMed: 3319971]

Brofenbrenner U. Toward an experimental ecology of human development. American Psychologist. 1997; 32:513–531.

Byamugisha R, Tumwine J, Semiyaga N, et al. Determinants of male involvement in the prevention of mother-to-child transmission of HIV programme in Eastern Uganda: a cross-sectional survey. Reproductive Health. 2010; 14:12.

Byamugisha R, Astrom AN, Ndeezi G, et al. Male partner antenatal attendance and HIV testing in eastern Uganda: A randomized facility-based intervention trial. Journal of International AIDS Society. 2011; 14:43.

Ditekemena J, Koole O, Engmann C, et al. Determinants of male involvement in maternal and child health services in sub-Saharan Africa: a review. Reproductive Health. 2012; 9:1742–4755. 32.

Eliason S, Baiden F, Quansah-Asare G, et al. Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. Reproductive Health. 2013; 10:34. [PubMed: 23870234]

Hartmann M, Gilles K, Shattuck D, et al. Changes in couples' communication as a result of a male-involvement family planning intervention. Journal of Health Communication. 2012; 17:802–819. [PubMed: 22545820]

Kabagenyi A, Jennings L, Reid A, et al. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. Reproductive Health. 2014; 11:1742–4755. 21.

Kakaire O, Kaye DK, Osinde MO. Male involvement in birth preparedness and complication readiness for emergency obstetric referrals in rural Uganda. Reproductive Health. 2012; 7:12.

Kalembo FW, Zgambo M, Mulaga AN, et al. Association between male partner involvement and the uptake of prevention of mother-to-child transmission of HIV (PMTCT) interventions in Mwanza District, Malawi: A retrospective cohort study. PLoS ONE. 2013; 8:e66517. [PubMed: 23776683]

Kiene SM, Sileo K, Wanyenze RK, Lule H, et al. Barriers to and acceptability of provider-initiated HIV testing and counselling and adopting HIV prevention behaviours in rural Uganda: A qualitative study. Journal of Health Psychology. 2015; 20(2):173–187. [PubMed: 24058127]

Lundgren RI, Gribble JN, Greene ME, et al. Cultivating men's interest in family planning in rural El Salvador. Studies in Family Planning. 2005; 36:173–188. [PubMed: 16209176]

Mangeni JN, Mwangi A, Mbugua S, et al. Male involvement in maternal health care as a determinant of utilization of skilled birth attendants in Kenya. DHS Working Papers Measure DHS & USAID. 2013

Matovu JK, Wanyenze RK, Wabwire-Mangen F, et al. “Men are always scared to test with their partners … it is like taking them to the Police”: Motivations for and barriers to couples' HIV counselling and testing in Rakai, Uganda: a qualitative study. Journal of the International AIDS Society. 2014; 8(17):19160.doi: 10.7448/IAS.17.1.19160

Msuya SE, Mbizvo EM, Hussain A, et al. Low male partner participation in antenatal HIV counselling and testing in northern Tanzania: implications for preventive programs. AIDS Care. 2008; 20:700–709. [PubMed: 18576172]

Mugisha JF, Reynolds H. Provider perspectives on barriers to family planning quality in Uganda: a qualitative study. Journal of Family Planning and Reproductive Health Care. 2008; 34:37–41. [PubMed: 18201405]

Mullany BC, Becker S, Hindin MJ. The impact of including husbands in antenatal health education services on maternal health practices in urban Nepal: Results from a randomized controlled trial. Health Education Research. 2007; 22:166–176. [PubMed: 16855015]

Nyondo AL, Choko AT, Chimwaza AF, et al. 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:e0119273. [PubMed: 25734485]

Odimegwu C, Adewuyi A, Odebiyi T, et al. en's role in emergency obstetric care in Osun state of Nigeria. African Journal of Reproductive Health. 2005; 9:59–71. [PubMed: 16623190]

Shattuck D, Kerner B, Gilles K, et al. Encouraging contraceptive uptake by motivating men to communicate about family planning: The Malawi Male Motivator project. American Journal of Public Health. 2011; 101:1089–1095. [PubMed: 21493931]

Singh K, Bloom S, Brodish P. Gender equality as a means to improve maternal and child health in Africa. Health Care for Women International. 2013; 36:57–69. [PubMed: 24028632]

Smith, CP. Content Analysis and Narrative Analysis. In: T, RH., M, JC., editors. Handbook of Research Methods in Social and Personality Psychology. New York: Cambridge University Press; 2000. p. 313-335.

Stokols D. Establishing and maintaining healthy environments. Toward a social ecology of health promotion. American Psychologist. 1992; 47(1):6–22. [PubMed: 1539925]

Sileo KM, Wanyenze RK, Lule H, Kiene SM. Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. International Journal of Public Health. 2015; 60(8):987–97. DOI: 10.1007/s00038-015-0683-x [PubMed: 25967466]

Siu GE, Wright D, Seeley J. Masculinity, social context and HIV testing: an ethnographic study of men in Busia district, rural Eastern Uganda. BMC Public Health. 2014; 14(33)doi: 10.1186/1471-2458-14-33

Uganda Bureau of Statistics (UBOS) and IFC International. Uganda Demographic and Health Survey 2011. Kampala, Uganda & Calverton, Maryland, USA: UBOS, ICF International; 2012.

Uganda Ministry of Health (UMOH) and IFC International. Uganda AIDS Indicator Survey (AIS) 2011. Kampala, Uganda; Calverton, Maryland, USA: MOH and ICF International; 2012.

VCT Study Efficacy Group. Efficacy of voluntary HIV-1 counselling and testing in individuals and couples in Kenya, Tanzania, and Trinidad: a randomised trial. The Voluntary HIV-1 Counseling and Testing Efficacy Study Group. Lancet. 2000; 356:103–112. [PubMed: 10963246]