MASTER'S PAPER

A LITERATURE REVIEW ON THE BENEFITS, RISKS AND METHODS OF PROMOTING MALE INVOLVEMENT IN ANTENATAL CARE TO ACHIEVE ZERO TRANSMISSION OF HIV FROM MOTHER TO CHILD IN SUB-SAHARAN AFRICA.

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ABSTRACT

Male involvement in Antenatal Care (ANC) has been shown to increase the effects of prevention of mother to child transmission (PMTCT) of HIV programs and adherence to Antiretroviral (ARV) drugs. Increasing male involvement remains a challenge with few interventions demonstrating credible and sustained effects. Research has mainly been focussed on the benefits of involving men rather than how to involve them in ANC. In addition, little research exists on the acceptability of involving men in ANC. This literature review focusses on the benefits and risks associated with male involvement in ANC as well as the perceptions of both men and women in regard to involving men in ANC in sub-Saharan Africa and assesses methods used to increase male involvement.

TABLE OF CONTENTS

PROBLEM STATEMENT AND ITS RELEVANCE TO MATERNAL HEALTH AND CHILD HEALTH

Antenatal care (ANC) has long been hailed as an effective prevention intervention to reduce maternal mortality and educate women in the benefits of delivery using skilled birth attendants. (1)It is also useful in preventing vertical transmission of HIV to infants through the package of interventions that have been integrated into ANC. ANC is essentially important for identification of pregnancy related risk, and early diagnosis of pregnancy complications, and appropriate management and health education. Women in Sub-Saharan Africa are expected to attend a minimum of four antenatal visits in which the mothers are tested for HIV and syphilis. This is called a focussed antenatal care.(2) Fetal growth and position as well as maternal haemoglobin levels, Rhesus blood group, weight, blood pressure and urinary glucose and proteins are monitored and a birth plan is made. During these visits, women are offered HIV and syphilis testing and are encouraged to bring their partners along on the next visit for HIV and STI testing, initiation of treatment or counselling on prevention of these diseases. The partner is encouraged to ask about the health and wellbeing of the foetus and his partner.(3)

Generally, there is very little male participation in antenatal care and in the prevention of mother-to-child transmission on HIV. The traditional approaches to increasing antenatal care attendance have been primarily targeted at women.(4) This is despite men being heavily involved in decisions regarding timing of first pregnancy, women's prospective desire for becoming pregnant, their feeling upon learning about pregnancy, and subsequent changes in women's evaluation of pregnancy wantedness both during pregnancy and after delivery.(5) One of the most important areas of reproductive health affected by men is pregnancy care and

outcome; yet, men's participation in and influence on prenatal care is poorly understood from an anthropological perspective.(6)

In countries that do encourage paternal involvement in antenatal care and during labour, men are seen to have three main roles and responsibilities. These are that of being an advocate for his partner, providing protection for his child and protecting his own interests.(5) These interests involve having a role in deciding the prenatal care of the child which would impact his lifelong parental responsibility toward the care and success of his child. However, these countries, such as the United Kingdom, still have challenges in involving men, especially first-time fathers. Shapiro (1987) noted that

> Men are encouraged to participate fully in the pregnancy and birth of their children, but are simultaneously given to understand, in a multitude of ways, that they are outsiders. Most of all, it is made clear that while their presence is requested, their feelings are not, if those feelings might upset their wives. Anxiety, anger, sadness and fear are all unwelcome. (p. 38)

In sub-Saharan Africa, where HIV is a pandemic, women are disproportionately affected with almost 60 percent of all HIV infections occurring in women.(7) Women are also more likely to be isolated within the homestead and lack decision-making power over finances, and their movement. They also lack access to information and healthcare.(7) Men are of vital importance in the prevention of vertical transmission of HIV. They may be the missing link to attaining the goal of zero vertical transmission of HIV within the continent. Interventions in PMTCT may be more meaningful with involvement of men because they do have access to the information, they are able to make financial decisions, and they provide protection to women.(8) These interventions have been gender exploitative and work within the current gender norms and imbalances to achieve a program objective. Involvement of men can

generate a broader consensus of issues that were previously categorised as a women's only issue. Gender equality and empowerment of women, especially in negotiating safe sex practices to prevent spread of HIV and attendance of ANC continue to face an uphill struggle in societies where men are the primary decision makers. This literature review aims at finding methods to close this power gap and promote understanding between men and women especially for the health of their families. Gender transformation is necessary to improve male involvement in PMTCT and ultimately the outcome of PMTCT programs in preventing vertical transmission of HIV.

SEARCH STRATEGY INLCUDING CRITERIA FOR SELECTION OF ARTICLES

The problem statement articles were selected from a PubMed search of "men in antenatal care". Articles were selected based on relevance to the research topic and more recent papers were selected for review; the oldest being a 2004 journal article. One guideline selected sought to explain how antenatal care in sub-Saharan Africa is carried out. South Africa was selected as a sample country. A book that was cited looked into how Africa could improve its opportunities in reducing new-born mortality through improved antenatal care. One journal article on medical anthropology looked into men's influences on women's reproductive health. Two other journal articles were on improving the medical setting for male involvement in prenatal care in the United Kingdom and the United States.

Article searches for the critical review were of "male involvement in antenatal care," "men in antenatal care," and "improving male involvement in antenatal care" Inclusion criteria for the articles were those that had been published as recently as 2006, based on research done in sub-Saharan Africa and were focussing on prevention if vertical transmission of HIV. Exclusion criteria were articles older than 2006, articles not based on research done in sub-Saharan Africa and not relevant to the topic of increasing male involvement in antenatal care. The articles selected were on actual research done in ANC and PMTCT clinics in Cameroon, Kenya, Malawi, South Africa, Uganda, Tanzania, Rwanda, Zambia, Georgia, India and Dominican Republic. Though the last three countries are not in Africa, they were selected because they involved major aspects of research done in African and were also relevant to the topic at hand due to similarities in the gender norms and socio-economic status on the communities in these countries with many of those in sub-Saharan Africa. There were at least two different research articles selected from Kenya, South Africa, Tanzania, Uganda and

Malawi. Both qualitative and quantitative research based articles were selected. Randomised control studies, prospective cohort, and case control studies were selected. The research in these articles involved questionnaires, focus group discussions and in-depth interviews. Men were invited to participate in these activities through their partners who were, at the moment attending antenatal clinic. Other articles selected were a Cochrane systematic review and integrative literature reviews.

CRITICAL REVIEW

What are the benefits and risks of male involvement?

Antenatal care has long been seen as the domain for women in sub-Saharan Africa. This is because it is only women who get pregnant and give birth. Therefore it is taken as a women's only activity.(9) Traditionally men do not attend antenatal clinic. (10) Men have been seen to be supportive of antenatal care only as far as providing encouragement to attend the clinic and at times security. Antenatal care (ANC) attendance and the efforts made to improving Prevention of Mother to Child Transmission (PMTCT) of HIV/AIDS improve the maternal and child outcomes with the involvement of men in these key health service areas.(11, 12) PMTCT programs are a good entry point for men to participate in prevention of sexual and perinatal transmission of HIV and other sexually transmitted infections (STI's). Women who have their male partners involved in PMTCT are three times more likely to use Nevirapine prophylaxis, four times more likely to avoid breastfeeding and six times more likely to adhere to the infant feeding method selected. (13) However, this study was not a randomized trial and there may have been some selection bias and the effect of male involvement may not have been the sole contributing factor in these improvements, which are still valid and important. Infants who were born to couples with an involved male partner who was tested for HIV have a statistically significant 0.55 hazard ratio of vertical transmission of HIV from their mothers one year after birth compared with couples where the father wasn't involved.(14) This ratio had been adjusted for breastfeeding and maternal viral load. It should be noted, however, that the World Health Organization now supports breastfeeding for HIV positive mothers as the best option for infants and that breastfeeding in this context should not be a confounding factor.(15)

There have been, however, some risks associated with involving men in antenatal care and PMTCT. Some women are unwilling to disclose their HIV status to their partners due to fear of loss of economic and social support and domestic violence. Younger women and women with one or more children are more likely to conceal their HIV status to avoid shame and withdrawal of economic support, especially for their children. (16) Only 26% of the HIV positive women interviewed in a PMTCT study in rural Uganda had revealed their status to their partners. These women describe the process of disclosing their HIV status to their partners as too heavy a burden and therefore defer disclosing their status. They needed health workers to provide guidance on disclosing their status and to encourage their partners to go for HIV counselling and testing. Those women who are HIV negative are at risk of contracting HIV since their partners are unwilling to be tested.(17) HIV-1 infection risk increases during pregnancy. This may be due to physiological changes affecting women during pregnancy that increased HIV-1 infectiousness as well as behavioural factors such as decreased power to negotiate condom use.(18) A qualitative case study of male involvement in PMTCT program in rural Malawi revealed that the community members named the program "divorce program" because men were abandoning their pregnant and HIV positive partners after being accused of infidelity by their wives' relatives. In this program, men who had previously never been involved in ANC/PMTCT were demanded to participate in the PMTCT program. (19)

It would be rather difficult to clearly state whether the benefits outweigh the risks of involving male partners in ANC. Research done in the benefits of involving men has not been strong enough to give conclusive evidence. One randomised control study carried out in rural South Africa concluded that male participation may be necessary but not sufficient in increasing PMTCT uptake. However it's authors still suggested that male involvement in

HIV education would be of benefit to increasing PMTCT uptake.(20) This shall be discussed further in the research gaps section of this paper.

Do women want men involved in ANC/PMTCT?

Women typically attend ANC to have health problems identified and treated as well as to determine if the foetus is alive and developing appropriately.(21) Approximately 76%-94% of women in sub-Saharan Africa have at least one Antenatal clinic visit.(22) This provides an excellent opportunity for women to receive HIV counselling and testing. For some of these women, the ANC is the first opportunity they have to get counselled and tested on HIV. This is also an opportunity for their partners to receive HIV testing and counselling. A quality improvement study carried out in Cameroon showed that women (83.8% of those surveyed) were receptive to having their male partners attend the ANC with them.(21) This was mainly because they desired to have their male partners tested for HIV and receive their results together. The same study also noted that the women (98.2% of those surveyed) thought that the men's primary role in ANC is payment for obstetric care.(21) Fewer women considered involving their partners in ANC and PMTCT for their own partner's health benefit.

Women view men's involvement in ANC/PMTCT from individual beliefs that are influenced by traditional, cultural and societal. Perceptions of making men involved in this form of care varies from one woman to another. Some women may view their involvement as unnecessary and perhaps as a sign of insecurity on the part of their partner who does not trust them to attend the clinic on their own. Other women may be very welcome to the idea and see the act of their partners attending the clinic with them as a sign of commitment and support. A study of women in an urban town in Tanzania generally categorised women as more willing to

bring their partners with them to voluntary counselling and training (VCT) or PMTCT if they are living with their partners, have a high monthly income, collected their own results and had previously expressed their intention to share their HIV status results with their partners.(13) Each community may find it necessary to first evaluate how open the women are to having their partners come with them to the antenatal clinic at least once during their pregnancy.

Are men willing to be involved in ANC/PMTCT?

In general, men do have positive attitudes towards PMTCT programs and men interviewed in various studies in sub-Saharan Africa are of the perception that male involvement in ANC/PMTCT can be improved and the presence of men in ANC/PMTCT should be highlighted.(23) Men in an urban Kenyan study reported that the main reasons given for male participation in ANC/PMTC are to obtain health information (11%) and to be tested for HIV (87%). The men in this study were invited to attend the clinic through their partners. This strategy shall be discussed in a later section of this review. Only 27% of the men invited stated that they would have wanted to receive HIV counselling and testing at a site other than the ANC. (24) Men generally do not have adequate uptake of ANC/PMTCT services due to their perception that these services are a woman's domain. Their perceptions are further enforced by the lack of support from staff members in the antenatal clinic or even the structure of the clinics in terms of the lack of toilet facilities for men. (21, 25). However, PMTCT, in some rural areas of Africa is seen as a community effort with the father's input being perceived as positive especially in support for women's and infants uptake of treatment.(26, 27) This is in part due to the shift in support for antenatal care and skilled birth attendance from elders in the community. ANC/PMTCT participation among men is more

likely to take place if the men have secondary education or higher, are employed have not had prior HIV testing.(11)

What are the barriers to male involvement?

Although men have stated that they are willing to attend ANC clinics if invited (10, 27), there are some barriers to their attendance. One such barrier is the lack of awareness on what goes on in the ANC. Some men in South Africa perceive the ANC as a sacred place for women much like in male initiation in African tradition. They were also not aware of the screening for sexually transmitted infection (STI) and HIV that takes place in the ANC clinic.(10) Those who do know about this health screening a more likely to attend ANC with their partners, primarily for this service.

Economic activities were also seen as a barrier to male involvement in ANC. Men would typically be at work or looking for work while the woman is attending the clinic.(27) The operating hours of antenatal clinics are usually in conflict with the official work hours. Men are unlikely to get a few hours off work to attend ANC with their partners.

The health system is another barrier to male involvement. ANC clinics typically have few male health care givers. They may feel intimidated to be surrounded by very many women and uncomfortable to receive sexual advice from a woman rather than a man. Some health care facilities offering ANC may not even have male bathrooms. They also have long waiting periods which discourage male participation; especially if it means time away from an economic activity from which they will earn an income to support himself and his growing family.(28)

Social and cultural factors also play a role as a barrier. Men may be perceived as being jealous or possessive if they attend ANC with their partners. They risk being ridiculed by their female partners, her peers and even the healthcare workers.(27) Some men fear being the only ones in the clinic with their partners while other men fear being seen with their partner in ANC if they have multiple clandestine partners.(10)

What has worked to successfully get men involved?

There are a few programs that have made attempts to increase male involvement in ANC/PMTCT. Programs in Uganda and Kenya have given women invitation letter to give to their husbands for the next visit. In Uganda couple attendance of ANC increased by 10% after initiation of the use of invitation letters.(29) Similar findings were present in Kenya.(24) This strategy depended strongly on the woman's willingness to deliver the invitation to her partner. Cultural differences in terms of how men and women communicate have been responsible for the rather small effect of this strategy. Women may have thrown away the letter and never given it to their partners for fear or ridicule. Other women took the initiative as a chance to have their partners attend the clinic.(27) Another aspect with the invitation letter is the theme around which it is presented. The theme involves the wording of the letter, services offered and benefits of attending a clinic visit with his partner. A letter with a strong theme of fatherhood and revolving around the baby is most likely to elicit a response from the men.(30)

A qualitative study in Malawi reported that community mobilization through a male peer initiative where men who attended ANC enrolled other men to do the same, use of incentives and community sensitization is more substantial in maintaining strong male attendance in ANC/ PMTCT. This is because the initiative stems from the male participant and is supported by the community and can be easily sustained.(9) However, the use of incentives may not be fully sustainable if the funding for that aspect of the program is reduced or cut altogether. Community sensitization has also occurred in the form of changing the male chief's perceptions and views on traditional practices. In Malawi, they have been targeted for health behavioural change that has encouraged them to embrace safer practices. In one rural community, there are fines for failing to take a woman for delivery with a skilled birth attendant. The chiefs and elders there have made it a priority to eliminate maternal deaths during child birth in the community.(31)

Finally, extended hours during weekdays and over the weekend to allow men to attend the clinics with their partners.(32) These men, therefore, do not have to take time off work to attend the clinics with their partners. The change in working hours has reduced the risk of loss to follow-up for HIV positive mothers who now have a support system to help them accept their diagnosis and prevent vertical transmission to her child.(33)

WHAT ARE THE RESEARCH GAPS?

Studies with strong designs are needed to understand the effect of male involvement on outcomes such as uptake of services and reduction of HIV transmission. More randomised control trials are necessary to reduce bias and provide strong evidence for or against

purposeful efforts to involve male partners in antenatal care. The use of invitation letters, community based initiatives and extended clinic hours have shown a positive impact in increasing male involvement in ANC/PMTCT. However, there is a general lack of initiatives to involve men in these activities hence only a few interventions that have been put in place. One of the keys to improving male involvement in ANC/PMTCT is the understanding of couples relationships and their communication patterns.(34) This is important in the Sub-Saharan setting where traditional beliefs and cultural practices play a big role on how couples relate to each other and how they perceive pregnancy and ANC. There is also a culture perception that men are powerful while women are powerless. This power is often referred to in negative terms because it is perceived that men deny their partners access to health care and take part in reckless sexual behaviour such unprotected sex with several partners.(8) However, men too have vulnerabilities and would greatly benefit from attending ANC with their partners to gain knowledge and receive HIV testing and counselling. It may be of benefit to have men actively take part in ANC and PMTCT as an exercise of their masculinity; taking responsibility of the healthcare of their partners and children. Though this may be termed as not being gender transformative, it may be of benefit to the community to involve men using these incentives and transform their perceptions and roles as male partners and fathers in the education given in the antenatal clinic. Further studies on effective methods of encouraging male participation in ANC/PMTCT are needed. (35, 36) This research should involve the studies on how women view male involvement in ANC in the first place and how they may approach their partners to invite them to attend ANC with them. Studies on women empowerment are necessary for effective methods on how women can approach their male partners to suggest that they both visit the antenatal clinic together. Both men's and women's views on how invitation letters may be worded to attract men to visit the clinics should also be researched. Research is also necessary for looking into male involvement outside the

perinatal period especially before conception as a very vital part in one of the arms of PMTCT; preventing new HIV infections among couples.

INTERPRETATION OF FINDINGS

Both men and women are unaware of the full benefits of involving men in ANC and PMTCT. Men are generally unaware that women receive HIV testing and counselling as well as screening for some STIs. They are also unaware that they can also benefit from these services which are mostly offered for free or at very low charges in public health centres. Women would benefit from the knowledge that their partners are tested and counselled for HIV and therefore have a reduced chance of contracting the disease from their partners, especially in discordant or HIV negative couples. This is also the case for other STIs. Women who are HIV positive are also able to find a safe environment to disclose their status to their partners and get support from them in terms of healthy sexual and dietary practices and reminders to take their ARV's and visit the comprehensive care clinics and support groups when necessary. Women also get support in helping prevent their infants from vertical transmission of HIV through use of formula milk and ARVs for their infants.

Women are mostly willing to have their male partners attend the clinic with them. However, some women may fear ridicule from their peers and even their male partners when inviting them. Men are also willing to attend ANC with their partners. This is especially for those men who know what is offered during these clinic visits. Men face several barriers in attending these clinics. These include the lack of time and money to have two people attend the clinic visits and the potential loss of money from time spent away from economic activities. Men also fear ridicule from their peers and blame from their partners if found to be HIV positive.

The perception of male involvement in antenatal care is different between men and women. Men view their involvement in antenatal care as providing support and encouraging to attend the clinic. Women, however, view involvement as having their partner physically present in the consultation room with the healthcare provider. Societal, cultural and community views on antenatal care need to be addressed to change these perceptions. Community leaders are important in changing these perceptions. Health education for change would also be useful in changing these perceptions.

Men should be engaged in a language and manner that fosters positive involvement rather than blame. For example, male involvement campaigns should focus on the responsibility men have, as husbands and fathers, to protect their partners and children. In addition to this, more efforts should be made to support the men who do actively support their partners by attending the antenatal clinics with them. Some men are ridiculed by their peers and sometimes even members of staff and other women at the clinic.

The ANC and PMTCT programs that are in place should be more sensitive to the men who do attend the clinic. Staff members should be encouraging and appreciative of the step these men have taken. Facilities in the clinics should also help foster this environment. These include toilet facilities for men, separate waiting rooms with their partners, evening and weekend open hours to accommodate men who work, a father's participation day or men's night, and hiring more male staff at these clinics.

POLICY IMPLICATIONS AND RECOMMENDATIONS. SIGNIFICANCE FOR MATERNAL HEALTH AND CHILD HEALTH

Involving men in antenatal care clinic visits does have a great impact on the outcome of both the mother and the infant. This is especially so in the context of HIV prevention and treatment. Men, as providers of security, financial support, and social support are important in ensuring the health of women in their communities. They are, in many cases, key decision makers in the household and the community at large. They are also the vanguards of many traditional practices in sub-Saharan Africa. It is therefore important that policy changes regarding their involvement in a practise that has been a woman's domain should involve their input and be implemented with their support.

There are several views from both men and women on involving men in antenatal care and PMTCT within the continent. Many of these views are conflicting. Implementation of male involvement programs will heavily involve the men and women in each community as partners for change. Their perspectives would be necessary on whether or not they think that male involvement is in fact important and on methods to engage men in attending the antenatal clinic. Particularly men, in their roles as traditional village and household leaders would be targeted for health education and behavioural change.

Policy changes also involve the healthcare providers. They should be open to accept male partners in clinic visits and encourage women to invite their partners to the clinics. Health education is necessary to encourage the healthcare providers to understand the value of male partners in their client's health decisions and activities. Health centres offering antenatal care should also be more male-friendly. Policy changes in this aspect may involve extended clinic

hours to accommodate men who are working during the regular clinic hours or priority service for women who came to the clinics with their partners. The facility itself should also be male-friendly in terms of having bathrooms for men or special waiting rooms for couples attending the clinic. Health messages displayed in the clinic should also have aspects of male involvement such as posters of men with their partners in the doctor's clinic room.

CONCLUSIONS

Great improvements have been made in improving maternal health in sub-Saharan Africa in the past few decades. However, more is efforts are necessary to achieve zero vertical transmission from mother to child. One key area in improving HIV outcomes is in the involvement of male partners in antenatal care. This promotes active participation in the prenatal care of the infant and testing for HIV among couples. Women are generally happy to have their male partners attend ANC with them. Men are also willing to attend ANC with their partners, mainly for HIV testing. However, there a several barriers to having men take part in the antenatal clinic visit. These include fear of ridicule from community members, lack of knowledge of what happens in during the visit, limited clinic hours for men who have to be at work, lack of male friendly facilities in the antenatal clinics and poor support from health care providers. Community health education and some policy changes are necessary to encourage greater male involvement in antenatal care. The implementation strategies of these changes and education messages vary from one community to another depending on the level of education, cultural practices and leadership support available.

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