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ORIGINAL ARTICLE MOTHER-TO-CHILD TRANSMISSION

Involvement of Male Partners in Sustaining Interventions for Preventing Mother-to-Child Transmission of HIV Among Women with HIV

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ABSTRACT

Background and Objective: Although male partners are eager to support the implementation of prevention of mother-to-child transmission (PMTCT) of HIV programs, several obstacles prevent them from participating. The purpose of this study was to explore the support of male partners of HIV-positive women in sustaining the implementation of PMTCT interventions.

Methods: This study adopted a qualitative approach. The case study research design was used to generate an in-depth understanding of the factors that hinder male participation in PMTCT interventions. Non-probability purposive sampling was used to 20 sample participants. Data was collected from two focus group discussions and analyzed using open coding. Trustworthiness was achieved by credibility, transferability, and confirmability. Adherence to ethical principles was upheld.

Results: Findings revealed two themes, perceived practices that hinder the provision of support and perceived support provided to sustain PMTCT intervention during childbirth. Sustaining PMTCT interventions included how the male partner adheres to interventions that prevent the transmission of the virus, like consistent condom use, especially during breastfeeding, support in exclusive breastfeeding, adherence to ART, and limiting the use of cultural practices.

Conclusion and Global Health Implications: The involvement of males in the interventions of PMTCT has been found to improve the sustainability of eliminating transmission of the virus to the baby. All clinics were recommended to be men user-friendly to encourage men to accompany their partners. Men are to be actively involved during decision-making and physical examination, where possible. Workshops and information-sharing sessions for men forums and community members on PMTCT interventions to be conducted.

Keywords: Male Partner, Support, Childbirth, PMTCT Interventions, Sustainability, HIV-Positive Women, Mother-to-Child Transmission, Vertical Transmission, HIV Infection, Pediatric HIV

INTRODUCTION

Most women find it challenging to participate and adhere with human immunodeficiency virus (HIV) prevention programs such as the prevention of mother-to-child transmission (PMTCT) if a male partner is not involved.^[1] The Vhembe district is a rural area where men predominate in decision-making regarding health-seeking behavior due to culture and stereotypes. Support from a male partner can be crucial in maintaining adherence and keeping pregnant HIV-positive women on the PMTCT program. Male participation and involvement in the PMTCT interventions improve the sustainability of eliminating mother-to-child transmission (MTCT). This finding was confirmed by Koo et al.,^[2] who supported that involving male partners of HIV-infected women was

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associated with improved uptake of PMTCT interventions, enhancing HIV-free survival among children. Aborigo et al.^[3-5] recommended that men's participation increases their awareness, acceptance, and support for the partner's needs, choices, and rights. Male involvement in PMTCT is crucial in the family setting, as men are the primary decision-makers in most African countries.

In low-resource settings with high mother-to-child HIV transmission rates, male partners must be considered part of the comprehensive approach. There are vital decisions that affect women and their children, including PMTCT interventions, family planning, and access to medical care.^[6] World Health Organization (WHO)^[7] and Hairston et al.^[8] noted that promoting a comprehensive approach to PMTCT includes primary prevention of HIV infection, unintended pregnancies, transmission from a woman to her infant, and providing treatment, care, and support to women living with HIV and their families. The United Nations Program on HIV and AIDS^[9] (UNAIDS) pointed out that over 70% of the estimated 37.7 million people living with HIV and about 39% who acquired new HIV infections globally in 2020 were in sub-Saharan Africa, where women remain disproportionately affected. In the context of PMTCT, male partners must practice and support health-seeking behavior. These include safe sexual activity, reducing unintended pregnancies, and improving care and treatment for the entire family.^[10]

It is necessary to involve men to support and create a positive atmosphere of encouragement to address emerging sexual and reproductive health issues. Empowering men regarding reproductive health helps them be more sensitive to women's needs and supports participating in PMTCT sustainability, thus reducing MTCT.^[3] Kalembo et al.^[11] indicated that men are decision-makers in African families, and they are the ones who make important decisions on health-seeking behavior. Their involvement in PMTCT programs could increase the uptake and reduce HIV infection in children. Maman et al.^[12] corroborated that male support influences women's adherence to their infant feeding methods. The South African National Department of Health^[13] emphasized implementing the PMTCT packages. The male partner's involvement is vital in realizing and sustaining the implementation of these packages.

Male partners who were eager to participate in the PMTCT program faced several barriers, including formidable structural and psychosocial barriers. Makoni et al.^[1] said that some males perceived that pregnancy and child-rearing are women's responsibilities.^[14] This was confirmed by Gourlay,^[15] who indicated that males accompanying their partners at prenatal clinics felt unwelcomed and uncomfortable, as policies at some health facilities restricted men's access to clinics, while at other health facilities, the infrastructure was

not conducive for male partners when they accompanied their partner. Male partners identified time constraints as a critical barrier to their involvement and were concerned about long waiting periods while they were supposed to be at work. The literature further documented the perspective of HIV-positive women on male support during and after pregnancy.^[12] It is unknown how the males in the rural setting perceived their support to their HIV-positive partners. The researchers conducted a qualitative research study in 2018 with a men's forum at Tshitamboni village to investigate their views on the support they provide to their HIV-positive female partners to contribute to the sustenance of interventions to PMTCT during childbirth.

METHODS

Research Design

This study adopted a qualitative approach in their natural settings with the aim of comprehending and interpreting phenomena in terms of the subjective interpretations of individuals.^[16] The case study research design was used to generate an in-depth understanding of support provided by male partners to their HIV-positive female partners to sustain PMTCT interventions. The study was conducted in 2018 at the Tshitamboni male's forum center in Vhembe District in Limpopo province.

Population and Sampling

The population comprised more married than single men and members of the Tshitamboni men's forum and those in relationship with their HIV-positive partners. Purposive and convenience sampling was used to 20 sample participants who volunteered to participate in the study.

Ethical Considerations

Ethical standards were ensured by obtaining ethical clearance (Ref: SHS/16/PDC/05/1306) from the University of Venda Ethics Committee and permission to conduct the study from Board members^[13] of the forum and the participants. Participants were coded as P and a number from a specific group as focus group discussion (FGD) 1 or 2. The participants gave verbal and written informed consent and were informed of their right to withdraw from the study without penalty. Ethics principles of fairness, privacy, confidentiality, anonymity, and participants' rights to voluntarily participate in the study were adhered to.

Data Collection

The researchers developed an interview guide that lists the questions to be explored during the interview. Data was collected through focus group discussion to gain a detailed

narrative of the perceived support and risks to MTCT by male partners of HIV-positive women and what support was provided during childbirth. Data was collected at the Tshitamboni Center. Two focus groups, each comprising ten participants, were conducted [Table 1]. The researchers used focus group discussions to get data from participants who were attending the men's forum. This method allowed for the observation of participant's body language, which provided valuable insights into their self-reports. The questions asked were (1) what are the perceived practices that hinder your support to your HIV-positive partner as this could contribute to MTCT risks and (2) what support will you provide to your partner to sustain PMTCT interventions during this period?

The researchers conducted further investigation to uncover more intricate information by providing clarification and elaboration on previous answers. The investigation primarily centered around the following topics: regular use of condoms, infant feeding practices, administration of traditional and over-the-counter medication, adherence to antiretroviral drugs (ARVs), providing expressed breast milk to the baby, and general beliefs regarding the prevention of childhood illnesses.

Data Analysis

Data analysis began while data was being collected and transcribed. A linguist converted the data from Tshivenda/Xitsonga to English verbatim after it was first translated. Tesch's eight-step open coding data analysis process was employed.^[16,17,18] To avoid omissions, transcriptions of the data was compared to the recorded information, and field

notes as verbal cues were coded and categorized. Creswell and Creswell^[17] open coding data analysis was used, which included a series of steps: First, thoroughly analyze the data in order to obtain a full understanding. Next, record any interpretations or significance that arose during the reading process. Construct codes based on the reduced data that was collected. Examine the transcriptions again and carefully study them, while also asking questions regarding the importance of the collected data. Abbreviate topics that arose as codes; Categorize interconnected subjects to provide significance to the main themes and subthemes; subsequently, elaborate on the themes and subthemes.

Trustworthiness

Trustworthiness was established by the credibility gained from prolonged engagement during the data collection process. The researchers and the moderator interacted with participants during the visit and data collection, establishing trust and rapport.^[19] Additionally, the credibility was strengthened by the time spent with participants during the interviews, where active listening and observation took place. The two focus groups were conducted to the point where no new data was being obtained. A verification process was performed to validate the accuracy and confirm the findings. The voice recorder was used to ensure the reliability of the information. To ensure the feasibility to apply the research technique, detailed and comprehensive descriptions of the research methodology were provided. The recorded interviews were transcribed verbatim, and the nonverbal cues were enclosed in brackets in the transcripts to ensure their authenticity.

RESULTS

Table 1: Demographic Profile: n = 20

Participant	Age	Marital status	Employment	Level of education	Use of protection	Number of children	Tested for HIV
1	55	Married	Employed	Diploma	No	7	No
2	60	Married	Unemployed	Primary	No	6	No
3	45	Married	Unemployed	Primary	No	3	Yes
4	56	Married	Self-employed	Grade 12	No	5	No
5	52	Married	Employed	Diploma	No	7	No
6	54	Married	Employed	Degree	No	6	No
7	48	Married	Self-employed	Secondary	No	4	Yes
8	42	Married	Employed	Degree	No	2	Yes
9	40	Married	Self employed	Secondary	No	1	Yes
10	38	Single	Employed	Honors	Sometimes	1	Yes
11	50	Married	Employed	Degree	No	3	Yes
12	45	Married	Employed	Diploma	No	4	No
13	48	Married	Employed	Diploma	No	4	No

(Contd)

Participant	Age	Marital status	Employment	Level of education	Use of protection	Number of children	Tested for HIV
14	56	Married	Employed	Degree	No	5	No
15	38	Married	Employed	Diploma	No	2	Yes
16	28	Single	Student	University student	At times	1	Yes
17	30	Single	Employed	Diploma	At times	1	Yes
18	45	Married	Employed	Grade 12	No	4	No
19	38	Married	Employed	Secondary	No	2	Yes
20	47	Married	Self employed	Diploma	No	3	No

Twenty male partners participated, their ages ranging from 28 to 60 years, and all those who were married were not using protection during sexual interaction. Two participants were unemployed, whereas the majority (13) were employed, four were self-employed, and one was still a student. Their education level ranged from primary school to secondary and tertiary qualifications. All participants involved were male parents. Participants disclosed that they tested for HIV but were not free to disclose their HIV status to the researchers.

Presentation of Qualitative Results

From the raw narratives following data analysis, the following themes emerged:

- Perceived practices that hinder the provision of support, and
- Perceived support provided to sustain PMTCT intervention during childbirth.

Childbirth in this study referred to the participation support by a male partner of an HIV-positive partner during pregnancy, labor, and early postnatal. The sustaining PMTCT interventions included how the male partner adheres to interventions that prevent the transmission of the virus, like consistent condom use, especially during breastfeeding, support in exclusive breastfeeding, adherence to ART, and limiting the use of cultural practices. The identified theme and subthemes are presented below. Direct quotes from participants supported the themes that emerged.

Theme 1: Perceived practices that hinder the provision of support

Male partners were expected to support and limit the practices that increase MTCT. Cultural practices were stereotyped, and a male partner supporting his female partner was viewed as a sign of weakened manhood. The findings presented some practices hindering male partners' support to their HIV-positive pregnant partners. The following were the direct quotes from focus groups 1 and 2.

FGD2 P3 indicated culture as a factor that affects his support when saying:

I think the community is respecting and adhering to all cultural prescripts in our rural area. It is possible to support my partner, but culturally, it is not comfortable to publicly support your wife. I accompany my wife to the clinic using my car, but when we reach the hospital, my mother or an elderly family member will accompany my wife.

Participant FGD1 P8 concurred by saying:

If people can see or know that you are always assisting your wife with issues related to childbirth, you will be perceived as like you are not a proper man, like you have been given a traditional herb ("muti") to soften you up. Or you are being controlled by your wife. I think supporting our wives is still new, and we are trying, but it is still tricky.

Participant FGD P4 supported that culture is an issue when saying:

Culture still determines how we must behave towards our families. After the baby's delivery, I was not allowed to see my wife and the baby, and we were not allowed to sleep in the same room until older people allowed us to do so. Culturally, it is taboo for men to take full support of female partners during pregnancy, labor, and postnatal. This referred to being available during labor.

Another aspect that hindered participation for support by a male partner was cited as the health facility challenge.

FGD2 P6 and FGD1 P2 said:

Nurses also make us as men lose interest in accompanying our wives to the clinic. The clinic has a long queue, and nurses do not care as you see them walking all over as if they don't know what to do. Nurses don't want to attend

to patients during their break time. Nurses are slow to help as if they don't care.

FGD1 P4 concurred with the above quotes saying:

The lack of being appreciated by nurses makes it difficult for us as men to support our wives to attend the antenatal clinic to get more information on PMTCT. If nurses may start to welcome us at their clinics and hospitals, it will be easier for us to support our wives in ANC and child health.

However, FGD 1 P3 said:

The security guards don't want us to get inside the health institution with our cars, and they refuse to take responsibility for looking after our vehicles.

The factors cited by male partners were perceived to hinder their support when their HIV-positive partners needed to attend antenatal and PMTCT services. Participants were also asked about their perceived risks to MTCT. Participants showed variable risks to MTCT.

When asked about the practicing of safe sex as an intervention for PMTCT, participant FGD1 P2 said:

I am aware of her positive status, but then does it mean we were going to use a condom for the rest of our lives? We are still young and still need to have children.

The issue of not engaging in safe sex was also confirmed when FGD1 P5 said:

At times, I visit my girlfriend, and is difficult to use condoms every time with both of them.

Contrary to putting the partner at risk of MTCT, FGD2 P4 said:

I don't have a problem for my partner to continue with breastfeeding, and we are using protection during breastfeeding as the sister advised us at the clinic.

Partners who received health information knew about the risk of MTCT when engaging in unprotected sex while breastfeeding. Despite understanding the risk, FGD1 P4 said:

I attended the ANC with my wife, and that day they were teaching about things that contribute to mother transmission to the baby. They talked about the practice of unsafe sex, multiple partners, and feverishness when

breastfeeding. It was clear but difficult as most of us have multiple partners.

Multiple and concurrent partnerships without using protection during sex increase the risk of MTCT.

The issue of lack of trust among the couple contributed to no condom use, when FGD1 P1 said:

If you start to use a condom with your wife, there is no trust. Protection is difficult when you are in a marriage.

The participant further said:

We are afraid to buy condoms fearing that somebody may see us and label us as promiscuous.

FGD1 P2 said that:

Using a condom at home is still a problem. Condom or utilizing condoms at home brings conflict because when the wife starts to talk about condoms is like she is saying that the husband is not faithful.

The other barrier to condom use was nondisclosure—male partners who tested positive did not disclose their status as they feared stigma. They avoided discussing HIV-positive status with their female partners but didn't use protection during sex. FGD2 P7 confirmed this saying:

I was working in the other province, and I attended the clinic there, I tested positive, but I never disclosed it to my wife, and when she tested positive, I was very guilty.

Male partners make it difficult for female partners to adhere to ARVs; they also fear HIV testing and are afraid the test would be HIV-positive. Since adherence to ARVs was classified as PMTCT intervention, nondisclosure may lead to nonadherence and reinfection.

FGD 1 P3 said:

I knew of the person who had not disclosed to the partner and was taking treatment though not accurately as the ARVs were kept in his car.

This could contribute to resistance from both partners.

Theme 2: Perceived support to sustain PMTCT intervention during childbirth

When asked what support was supposed to be provided to maintain PMTCT interventions, participants indicated they wished to support their female partner. Still, cultural practices

and barriers were reported to be stereotyped, and they didn't want to be viewed as having a weak sense of manhood.

The following were some of the quotes from the participants:

FGD2 P1 said:

When we grew up, it was taboo for a man to get inside the room where the baby is staying, let alone to see the baby before the umbilical cord separates as it was said you will cause the baby to get ill (u kanda nwana). I understood and respected that, but since we underwent couple counseling, I will support my partner by consistent condom use and adherence to our ARVs.

FGD1 P3 and FGD1 P8 said:

Yes, it is possible to support our wives, but it is difficult to change it culturally even our fathers didn't display that good relationship with their wives. But since we are nuclear families, that is gradually changing. I fully support my wife even taking care of the baby.

FGD2 P7 said:

Some of the things that made us as men fail to support our wives is the education we received from our elders that if you see your wife giving birth, you will lose interest in having sex with women you have witnessed her vagina stretching to deliver the baby. But as we are encouraged to undergo childbirth education with our wives, we can support them.

Culture plays a vital role in the socialization of men in this rural area.

DISCUSSION

Perceived Practices that Hinder the Provision of Support

In most African societies, there is the perception that pregnancy and child-rearing are women's responsibilities.^[20] The role played by male partners in PMTCT is treasured. However, male partners were often socialized from a young age not to involve themselves in issues related to childbirth, which may hinder their ability to support their wives and children. This study revealed that male partners faced hindrances supporting their female partners, whether HIV-positive or negative. They reported that they wanted to support their wives and children, but society seems to be not yet ready for that since those trying are shunned; for example, they are said to be given a substance to stay soft (muti to make a man quiet).

Male partners indicated they wish to support their female partners, but it is not traditionally acceptable. The study's findings concurred that traditionally men are oriented not to be involved with issues of supporting women during the postnatal period.^[21] This was not concurring with the guidelines of the South African Department of National Health^[13] because components 3 and 4 require the full support of a male partner, to prevent transmission of HIV from an HIV-infected woman to her infant during pregnancy, labor, childbirth, and breastfeeding if engaging in unprotected sex. Additionally, both partners are encouraged to undergo HIV counseling and testing, support one another when taking ARVs, even for prophylaxis and a male partner to create opportunities to support the HIV-positive partner.

Cultural practices often perpetuate stereotypes, leading to the perception that a male partner supporting his female partner in child-rearing may weaken his manhood. The community also contributed to the discouragement of male partner involvement by stigmatizing and devaluing men who support their wives, portraying them as submissive or lacking masculinity. Traditionally, grandmothers were regarded as highly experienced and knowledgeable about the issues of childbirth and taking care of a newborn baby; however, Negin et al.^[22] said that the family-centered aspect was ignored. Male partners were hindered from providing support to their female partners following the birth of the infant, which disrupted the implementation and continuation of the PMTCT interventions. Healthcare professionals need to be involved in creating opportunities for male partners. The success of PMTCT of HIV depends on cooperation between parties, as a male partner has a strong influence on the PMTCT sustainability.^[23]

Participants also mentioned that health facility-related factors were obstacles to the involvement of male partners' participation. The nurses and security guards at the health facility have been observed discouraging male companions from entering the consultation room or even the facility area with the woman. Furthermore, the male partner may have been discouraged by the longer period of the waiting. This was supported by Gourlay et al.,^[15] who reported that male partners were prevented from accompanying their wives to the clinic due to long waiting periods. Midwives tell the male partner to wait outside when the women enter the cubicle to be examined. The same findings by Kalembo et al.^[24] corroborated that healthcare workers excluded the male partners from the session where their wives were examined and instructed them to wait outside without any information about what was happening to their pregnant wives. Midwives were reported to display hostile behavior toward male partners who try to support their wives.^[15] The health professional was cited as noncaring and very slow

when rendering care. Gourlay et al.^[15] further maintained that health workers had been reported as barriers to involvement for support in PMTCT sustainability. The mistreatment of the spouses of HIV-positive women and partners by healthcare workers made them feel uncomfortable and embarrassed.^[25] Most healthcare facilities were planned long ago before PMTCT programs were initiated and were not built in a way that they may accommodate family consultation. Male partners were offended by the space, sitting arrangement, and accommodation of mothers and their spouses as it is still a challenge, especially with old infrastructures.^[25-27] The security services and long waiting hours were reported to contribute to male partners' failure to support their wives.^[28]

Perceived Support Provided to Sustain PMTCT Intervention During Childbirth

As in most African countries, male partner involvement in PMTCT interventions is crucial in family settings where men are the primary decision-makers. As the head of the household, the husband dramatically influences the woman's ability to seek healthcare or implement health practices and interventions. In the context of HIV, male partners have a role in the women's risk of acquiring HIV and in their uptake of HIV testing and MTCT prevention programs. In this study, participants cited the instances that could increase the chances of MTCT, like engaging in unprotected sexual relations. Tilahun and Mohamed^[29] indicated that male partners are unwilling to use condoms during sexual intercourse. Male partners were reported to use violence, withdrawal of financial support, resentment, and control behaviors to force their wives to have sex without a condom. This was also a problem because female partners who did not disclose their HIV-positive status found it difficult to negotiate condom use, thus exposing them to reinfection and risk of MTCT to their babies.^[15]

The lack of support from male partners causes female partners not to disclose their HIV-positive status to their partners.^[30] Nonuse of condoms with infected women while breastfeeding is one of the identified causes of MTCT.^[31] This information was also confirmed by the focus group of male partners who verbalized that they don't use condoms in marriage, fearing the issue of trust in their relationship. Participants verbalized that when they have condoms, it is like confirming to their suspicious wives that they are having extramarital affairs; they also reported that female partners are compassionate to seeing male partners with the condom. Participants stated that if they bring a packet of condoms, the wife will count them; if one pack is missing, they will have to explain to the point of sleepless nights. They said they may use a condom with their girlfriends but not their wives. Men were also likely to have more than three sexual partners in their lifetime.

Multiple concurrent sexual partners have been identified as one of the drivers fueling the HIV epidemic and the hindrance of family support to PMTCT interventions. Men who have multiple sexual partners were reported not wanting to accompany their pregnant women because they do not want to be seen by their concubines. Extramarital relationships or multiple sexual partners were cited as barriers to male partners' involvement in family support in PMTCT sustainability.^[32,33] From the study's findings, it became clear that males need detailed information on the risks of MTCT and the importance of their participation in the sustainability of PMTCT interventions. Male involvement in PMTCT improves sustainability and promotes positive attitudes toward adherence to PMTCT interventions. This was also confirmed by Ditekemena et al.^[34] who said that male participation in child-bearing decisions is crucial and also has a positive impact on the acceptability of PMTCT interventions.

Limitations

This study was conducted with one men's forum in one district (Vhembe) of Limpopo Province and cannot be generalized to another district. The focus group method may have limited the participants' information sharing, as the minority of participants may dominate the entire group during the discussion. This was not ignored as the setting up and moderating the groups attempted to reduce these limitations.

CONCLUSION AND GLOBAL HEALTH IMPLICATIONS

Male partners are regarded as the main decision-makers in financial and health-seeking behavior. Their involvement and participation are vital in implementing, maintaining, and sustaining PMTCT interventions. Male partners need to support by preventing transmission of HIV by consistent use of condoms during sexual relations when the woman is pregnant or breastfeeding. During mixed infant feeding, the risk of transmission is high. During pregnancy, it is important for the woman to attend couple counseling and testing. This will provide both partners with information about mother-to-child transmission (MTCT) and the potential need for antiretroviral (ARV) treatment. Additionally, the partner will receive information about the significance of follow-up care, support, and treatment for their infant and other family members.

Findings of the study were made available to the district coordinator and clinic health professionals. For the implication of practice, it was recommended that all clinics be men user-friendly; on the infrastructure issue, the

operational staff needs to consult with the top management to enhance the men user-friendly health facility. The PMTCT-trained midwives must encourage the men to support their wives physically, mentally, and financially. Men should be encouraged to accompany their female partners to the clinic and be actively involved like allowing the husband to listen to the baby's fetal heart, and workshops for men's forum and community members on PMTCT interventions.

Key Message

- Support from a male partner is linked to improved maternal HIV testing during pregnancy, better initiation and adherence to maternal antiretroviral medication, and less vertical transmission, with an accompanying rise in HIV-free baby survival.

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COMPLIANCE WITH ETHICAL STANDARDS

Conflicts of Interest

The authors declare that they had no financial or personal relationship(s) which may have inappropriately influenced them in writing this article.

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Nothing to declare.

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Ethics Approval

Ethical clearance (Ref: SHS/16/PDC/05/1306) was obtained from the University of Venda Ethics Committee, and permission to conduct the study from Board members of the forum and the participants.

Declaration of Patient Consent

Patient's consent not required as there are no patients in this study.

Use of Artificial Intelligence (AI)-Assisted Technology for Manuscript Preparation

The authors confirm that there was no use of AI-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

Disclaimer

None.

REFERENCES

1. Makoni A, Chemhuru M, Chimbetete C, Gombe N, Bangure D, Tshimanga M. Factors associated with male involvement in the prevention of mother to child transmission of HIV, Midlands Province, Zimbabwe, 2015—A case control study. *BMC Public Health*. 2016 Apr 14;16:331. <https://doi.org/10.1186/s12889-016-2939-7>
2. Koo K, Makin J, Forsyth B. Where are the men? Targeting male partners in preventing mother-to-child HIV transmission. *AIDS Care*. 2013;25(1):43–8. doi: 10.1080/09540121.2012.687822.
3. Aborigo RA, Reidpath DD, Oduro AR, Allotey P. Male involvement in maternal health: Perspectives of opinion leaders. *BMC Pregnancy Childbirth*. 2018 Jan 2;18(1):3. <https://doi.org/10.1186/s12884-017-1641-9>
4. Sifunda S, Peltzer K, Rodriguez VJ, Mandell LN, Lee TK, Ramlagan S, et al. Impact of male partner involvement on mother-to-child transmission of HIV and HIV-free survival among HIV-exposed infants in rural South Africa: Results from a two phase randomised controlled trial. *PLoS One*. 2019 Jun 5;14(6):e0217467. doi: 10.1371/journal.pone.0217467.
5. Triulzi I, Somerville C, Sangwani S, Palla I, Orlando S, Mamary HS, et al. Understanding the meanings of male partner support in the adherence to therapy among HIV-positive women: A gender analysis. *Glob Health Action*. 2022 Dec 31;15(1):2051223. doi: 10.1080/16549716.2022.2051223.
6. Mohammed BH, Johnston JM, Vacko VA D, Hassen SM, Yi H. The role of the male partner in the utilization of maternal health care services in Ethiopia: A community-based couple study. *BMC Pregnancy Childbirth*. 2019 Jan 14;19(1), 28. <https://doi.org/10.1186/s12884-019-2176-z>
7. World Health Organization. PMTCT Strategic. Vision 2010–2015: Preventing mother-to-child transmission of HIV to reach the UNGASS and Millennium Development Goals. Geneva, World Health Organization; 2010.
8. Hairston AF, Bobrow EA, Pitter CS. Towards the elimination of pediatric HIV: Enhancing maternal, sexual, and reproductive health services. *Int J MCH AIDS*. 2012;1(1), 6–16. <https://doi.org/10.21106/ijma>
9. UNAIDS 2021 epidemiological estimates. 2020. [Accessed 2022 Jan 20]. Available from: https://www.unaids.org/sites/default/files/media_asset/UNAIDS_FactSheet_en.pdf.
10. Matseke MG, Ruiter RAC, Rodriguez VJ, Peltzer K, Setswe G, Sifunda S. Factors associated with male partner involvement in programs for the prevention of mother-to-child transmission

- of HIV in rural South Africa. *Int J Environ Res Public Health*. 2017 Nov 1;14(11):1333. doi: 10.3390/ijerph14111333.
11. Kalembo W, Yukai D, Zgambo W, Jun O. Male partner involvement in prevention of mother to child transmission of HIV in sub-Saharan Africa: Successes, challenges, and way forward. *Open J Prev Med*. 2010;2(1):35–42. doi.org/10.4236/ojpm.2012.21006
 12. Maman S, Moodley D, Groves AK. Defining male support during and after pregnancy from the perspective of HIV-positive and HIV-negative women in Durban, South Africa. *J Midwifery Womens Health*. 2011 Jul–Aug;56(4):325–31. <https://doi.org/10.1111/j.1542-2011.2011.00029.x>
 13. Department of Health. The South African National Department of Health. Guideline for the Prevention of Mother to Child Transmission of Communicable Infections, v2. 2019. [Accessed 2021 Oct 04]. Available from: <https://www.knowledgehub.org.za/system/files/elibdownloads/2020-05/>.
 14. Mullany B. Barriers to and attitudes towards promoting husbands' involvement in maternal health in Kathmandu, Nepal. *Soc Sci Med*. 2006 Jun;62(11):2798–809. doi: 10.1016/j.socscimed.2005.
 15. Gourlay A, Birdthistle I, Mburu G, Iorpenda K, Wringe A. Barriers and facilitating factors to the uptake of antiretroviral drugs for prevention of mother-to-child transmission of HIV in sub-Saharan Africa: A systematic review. *J Int AIDS Soc*. 2013 Jul 19;16(1):18588. doi: 10.7448/IAS.16.1.18588
 16. Denzin N, Lincoln Y. (Eds.). *Handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage; 2011
 17. Creswell JW, Creswell JD. *Research design: Qualitative, quantitative and mixed method approaches*. 5th ed. United States of America. Sage Publications.; 2018.
 18. De Vos AS, Strydom H, Schulze S, Patel L. The sciences and the profession. In De Vos AS, Strydom H, Fouché CB & Delport CSL. *Research at the grass roots for the social sciences and human service professions*. 4th ed. Pretoria: JL Van Schaik Publishers; 2011
 19. Polit DF, Hungler BP. *Essentials of nursing research: Methods, appraisal, and utilization*. 8th ed. Philadelphia: Wolters Kluwer/Lippincott Williams and Wilkins; 2013.
 20. Kisanga B, Fimbo J, Mrutu H. The involvement of men in PMTCT program at primary health centre in Moshi urban: Prevalence and perceived barriers. Paper presented at The National HIV/AIDS Care, Treatment and Support Conference; Arusha, Tanzania; 2004.
 21. Ganle JK, Dery I. 'What men don't know can hurt women's health': A qualitative study of the barriers to and opportunities for men's involvement in maternal healthcare in Ghana. *Reprod Health*. 2015 Oct 10;12, 93. <https://doi.org/10.1186/s12978-015-0083-y1>
 22. Negin J, Coffman J, Vizintin P, Raynes-Greenow C. The influence of grandmothers on breastfeeding rates: A systematic review. *BMC Pregnancy Childbirth*. 2016 Apr 27;16:91. <https://doi.org/10.1186/s12884-016-0880-5>
 23. Kiptoo SJ, Kipmerewo M. Male Partner Involvement in antenatal care services in Mumias east and west sub-counties, Kakamega County, Kenya. *J Nurs Health Sci*. 2017;4:37–46. doi: 10.9790/1959-0604033746 www.iosrjournals.org 37
 24. Kalembo FW, Zgambo M, Mulaga AN, Yukai D, Ahmed NI. 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 Jun 12;8(6):e66517.
 25. Maphumulo WT, Bhengu BR. Challenges of quality improvement in the healthcare of South Africa post-apartheid: A critical review. *Curationis*. 2019 May 29;42(1):e1–9. <https://doi.org/10.4102/curationis.v42i1.1901>
 26. Nyondo AL, Muula AS, Chimwaza AF. Assessment of strategies for male involvement in the prevention of mother-to-child transmission of HIV services in Blantyre, Malawi. *Glob Health Action*. 2013 Dec 16;6:22780. doi: 10.3402/gha.v6i0.22780.
 27. Ganle JK, Dery I, Manu AA, Obeng B. 'If I go with him, I can't talk with other women': understanding women's resistance to, and acceptance of, men's involvement in maternal and child healthcare in northern Ghana. *Soc Sci Med*. 2016 Oct 1;166:195–204.
 28. Colombini M, James C, Ndwiga C, Mayhew SH. The risks of partner violence following HIV status disclosure, and health service responses: Narratives of women attending reproductive health services in Kenya. *J Int AIDS Soc*. 2016 Mar 31;19(1):20766. doi: 10.7448/IAS.19.1.20766.
 29. Tilahun M, Mohamed S. Male partners' involvement in the prevention of mother-to-child transmission of HIV and associated factors in Arba Minch town and Arba Minch Zuria Woreda, Southern Ethiopia. *Biomed Res Int*. 2015;2015:763876. doi: 10.1155/2015/763876.
 30. Kiweewa FM, Bakaki PM, McConnell MS, Musisi M, Namirembe C, Nakayiwa F, et al. A cross-sectional study of the magnitude, barriers, and outcomes of HIV status disclosure among women participating in a perinatal HIV transmission study, "the nevirapine repeat pregnancy study". *BMC Public Health*. 2015 Sep 29;15(1):988. <https://doi.org/10.1186/s12889-015-2345-6>
 31. Drake AL, Wagner A, Richardson B, John-Stewart G. Incident HIV during pregnancy and postpartum and risk of mother-to-child HIV transmission: A systematic review and meta-analysis. *PLoS Med*. 2014 Feb 25;11(2):e1001608. doi:10.1371/journal.pmed.1001608
 32. Dunlap J, Foderingham N, Bussell S, Wester CW, Audet CM, Aliyu MH. Male involvement for the prevention of mother-to-child HIV transmission: A brief review of initiatives in east, west, and central Africa. *Current HIV/AIDS Reports*. 2014 Jun;11(2):109–18. doi: 10.1007/s11904-014-0200-5.
 33. Nyandat J, Van Rensburg G. Non-disclosure of HIV-positive status to a partner and mother-to-child transmission of HIV: Evidence from a case-control study conducted in a rural county in Kenya. *South Afr J HIV Med*. 2017 Nov 29;18(1):a691. <https://doi.org/10.4102/sajhivmed.v18i1.691>
 34. Ditekemena J, Koole O, Matendo R, Tshetu A, Ryder R, Colebunders R. Determinants of male involvement in maternal and child health services in sub-Saharan Africa a review. *BMC Reprod Health*. 2012 Nov 21;9:32.9 (32): doi: 10.1186/1742-4755-9-32

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