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“We have heard it together:” A qualitative analysis of couple HIV testing and counseling recruitment in Malawi’s Option B+ Program

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Abstract

Background: Encouraging HIV-infected pregnant women to recruit male partners for couple HIV testing and counseling (CHTC) is promoted by the World Health Organization, but remains challenging. Formal strategies for recruiting the male partners of pregnant women have not been explored within an Option B+ program. Our objective was to learn about experiences surrounding CHTC recruitment within a formal CHTC recruitment study.

Methods: A randomized controlled trial comparing two CHTC recruitment strategies was conducted among HIV-infected pregnant women presenting to Bwaila Antenatal Unit in 2014. Women were randomized to receive an invitation to attend the clinic as a couple or this invitation plus clinic-led phone and community tracing. A qualitative study was conducted with a subset of participants to learn about recruitment. We describe experiences of a subset of HIV-infected pregnant women (N=20) and male partners (N=17). One-on-one In-depth interviews were audio-recorded, transcribed, translated, and coded using content analysis.

Results: Nearly all women presented the invitation and disclosed their HIV-positive status to their partners on the day of HIV diagnosis, often to facilitate pill-taking. Men and women in both arms perceived the messages to be more compelling since they came from the clinic, rather than the woman herself. Couples who attended CHTC displayed greater care for one another and mutual support for HIV-related behaviors.

Discussion: Facilitating CHTC with invitations and tracing can support CHTC uptake, as well as support for HIV-affected couples. In an Option B+ context inviting partners for CHTC can facilitate male involvement and have important benefits for families.

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Keywords

HIV; counseling; prevention; qualitative; couple; Option B+; Malawi

Introduction

In 2011, Malawi's Ministry of Health introduced Option B+, a prevention of mother to child transmission (PMTCT) program. WHO has endorsed Option B+ which consists of a "test and treat" strategy: a triple ARV regimen is initiated in pregnancy upon testing HIV-positive and then continued for life. Option B+ is now considered the global Standard of Care for it has been shown to be a simpler and more effective PMTCT approach (Schouten, 2011, Thyssen, 2013). Since its adoption, antenatal HIV testing and counseling (HTC) and provision of ART during pregnancy have increased dramatically with corresponding reductions in MTCT (Centers for Disease Control, 2013; Kim et al, 2013; Tenthani et al., 2015).

One of the greatest remaining challenges to achieving optimal outcomes through implementation of Option B+ is early loss to follow-up by pregnant women. Approximately one in five women receive the first month's supply of ARTs and then to never return for refills (Tenthani et al., 2014; Haas, 2016). This phenomenon occurs at considerably higher rates among pregnant women than among HIV-infected persons initiating ART for clinical indications, such as AIDS-defining illnesses and low CD4 count (Tenthani et al., 2014). This early loss to follow-up often stems from difficulties with disclosing an HIV-positive status to male sex partners (Kalembo et al., 2013; Elwell et al., 2016; Katirayi et al., 2016; Kim et al., 2016). Without disclosure, women have trouble taking pills out of fear of accidentally revealing their HIV status. Helping women with early disclosure is therefore a critical part of strengthening the Option B+ program.

Couple HIV testing and counseling (CHTC) is one strategy for supporting women with early disclosure. Although CHTC has been recommended by the WHO and Malawi's national PMTCT guidelines, CHTC is not the norm within Malawi's Option B+ program, due to challenges of demand (few couples presenting) and supply (not all facilities offering the service). Low uptake of CHTC is a missed opportunity for male partners as well, as nearly all HIV-infected women have a male partner who is HIV-positive, and not in care, or HIV-negative, and not aware of being in an HIV-discordant relationship (Author's work).

A randomized controlled trial was conducted within Malawi's Option B+ program, which evaluated two male partner recruitment strategies (Author's work). Both strategies included sending a written invitation with the pregnant woman to give to her partner, with the second strategy adding a tracing component, as well. If the couple did not present within one week, male partners in the tracing arm were contacted first by phone, and then in the community. Invitation and tracing messages were focused on accompanying the female partner to the antenatal clinic for important pregnancy information. Majority received CHTC in both arms with uptake being significantly higher in the arm that contained tracing (Author's work). There were substantial increases in condom use, especially among HIV-discordant couples. Additionally, women who went for CHTC were less likely to experience

one-month ART default. Although the trial resulted in substantial behavior change, the processes underlying these health behaviors were not well understood. A deeper understanding of these experiences is essential to support program refinement and replication.

The findings of in-depth interviews conducted with a subset of male and female trial participants are described to address how and why women disclose their HIV status, how the use of the invitation letter was viewed, how men experience the disclosure, inviting and tracing processes, and what impact the interventions had on couples' relationships. Some women who did not present with partners for CHTC were also interviewed to learn how their experiences differed.

Methods

Study site

The study was conducted in the antenatal clinic at Bwaila District Hospital, a maternity hospital in Lilongwe, Malawi. Approximately 13,500 women receive antenatal care annually and approximately 11% are HIV-positive. Option B+ services have been offered there since 2011. During the study period, pregnant women were routinely tested at their first antenatal visit; women identified as HIV-positive initiated ART the same day. Historically, both before and during Option B +, 10–15% of women have brought a male partner to an antenatal visit (Mphonda et al., 2013).

Parent Study

Full methods are described in the main paper (Author's work). Briefly, a randomized controlled trial was conducted from 2014–2015 comparing two methods of partner recruitment: invitation only and invitation plus tracing. Women were eligible for the trial if they were HIV-infected and pregnant with a locatable sex partner in Lilongwe. Ninety-one percent of eligible women were interested in participating and provided informed consent. Participants in both arms were provided with one printed invitation and asked to give it to a male sexual partner. These invitations were each directed to a specific person requesting that he present to the clinic with his pregnant partner for important family-focused health information. A suggested appointment date was provided, although couples could present at any time. Participants in the invitation plus tracing arm were traced if they did not present to the clinic within one week. Tracing was conducted first by phone, and then at the partner's home or workplace by a trained community health worker. Neither the invitation nor the tracing messages mentioned that the woman was HIV-positive or that the visit would include CHTC, allowing women to decide whether or not to disclose prior to clinic presentation. Couples who presented together received pregnancy information and were offered CHTC from trained HTC counselors. All enrolled women were asked to report to the clinic for a study follow-up visit one month after enrollment. Within the study, each participant received a small transport allowance for each research visit (approximately \$5).

Study design and participants

The current study is a qualitative sub-study of female participants and their male partners conducted at the one month study follow-up visit from September-October 2014. In-depth interviews (IDI) were introduced at the end of the enrollment period, due to late approval of a protocol amendment, so only the last 38 couples were eligible to participate in the IDIs. Some couples were not approached for logistical reasons, such as presenting late in the day, and a few were too busy to stay for an IDI. Members of 22 couples were recruited. IDI participants were purposively selected to ensure a range of experiences. Specifically, participants were selected from both trial arms to explore these different recruitment experiences. HIV-concordant and HIV-discordant couples were purposively selected, as it was suspected they might have had different experiences following CHTC. Some women whose partners never presented for CHTC were also purposively selected to understand reasons for non-presentation.

Data collection

In depth interviews (IDIs) were conducted at the end of the follow-up visit in a private location. The IDI instrument was pilot tested for validity and refinement in Chichewa prior to use. Male and female members of the couple were each interviewed separately. Interviews were conducted in Chichewa, the local language, by trained Malawian research staff and summarized within two business days (TM). The interviews were semi-structured and included questions about HIV status disclosure, partner invitations, and tracing, as well as the relationship dynamics following CHTC.

Data management

Interviews were recorded electronically and de-identified data were stored on a secure server. Data are expected to be destroyed within three years of study completion. Each interview was first transcribed in Chichewa and then translated into English by a trained research assistant (OY). The translations were then imported into NVivo 10 for data management and analysis.

Analytic methods

All transcripts were first read by the principal investigator (NER) and two analysts (RG, TM) to develop thematic and structural codes. The two data analysts then each independently systematically coded all of the data, discussing discrepancies until a consensus was reached to ensure credibility of the coding process. The codes were inductive and related to perceptions regarding inviting, disclosing, and tracing; the CHTC visit; behavior changes following CHTC; and relationship changes following CHTC. Data were then displayed by code and organized into two matrices to identify patterns. One matrix was focused on inviting, disclosing, tracing, and testing, and a second was focused on relationship changes. Each matrix had one row per couple, and included columns for the intervention assignment, the couple HIV status, the key male findings, and the key female findings. Qualitative memos were written to identify emerging themes. Content analysis was the approach used.

Ethical approvals

Approval for the trial was provided by the National Health Sciences Research Committee of Malawi and University of North Carolina School of Medicine Institutional Review Board. The protocol was registered on clinicaltrials.gov (NCT02139176). All participants provided informed consent.

Results

Study Population

Twenty women and 17 of their male partners completed IDIs (Table 1). These 37 individuals came from 22 couples—two in which only the man was interviewed (because the woman was busy), five in which only the woman was interviewed (three because the partner did not come for CTC, two because the man was busy), and fifteen in which both were interviewed. Of the 22 couples, seven were from the invitation only arm and fifteen were from the invitation plus tracing arm; of these, six were traced for CHTC. Five couples were HIV-discordant, 13 were HIV-concordant positive, and four had an uncertain or unconfirmed male HIV status as the male partners did not report for CHTC.

Median age was 26 years for women and 28 years for men (Table II). Most women (80%) and men (82%) had not completed secondary school. Few women (10%) and men (29%) earned a salary. Most women came during the second trimester (85%) and for most (80%) this was not a first pregnancy.

Key themes

There were four key themes that emerged. These are broken down into 1) inviting and disclosing to male partners 2) perceptions of invitations and tracing, 3) male motivations and deterrents to clinic attendance, and 4) the effects of CHTC on the couple.

Inviting and disclosing to male partners: processes, motivators, fears, and outcomes

At the initial visit, women were asked to invite male partners. Since the invitation did not mention the woman's HIV status or CHTC, women were left to decide whether or not they wanted to disclose on their own or rely on the counselor to help them disclose during the CHTC process. In spite of these options, a common experience emerged: women reported disclosing to their partners on the day of their HIV test and inviting partners in the same conversation. For example:

“When they gave me that invitation, when I left here, when I reached home, I did not keep it a secret. He greeted me.

‘Are you back from the Antenatal?’

I said ‘Yes I am back.’

‘Was everything fine?’

I said ‘Yes. But when they tested my blood they found that in my body I have been found with what? The virus...and they also gave me this invitation that should be evidence. We should go there [the clinic]’”

(couple 4, female).

There were few deviations from this common pattern. Two women waited a few days to disclose and invite partners since their husbands were outside of Lilongwe the days they were tested. Another woman (*couple 15*) had tested and disclosed nearly ten years prior, but still gave her husband the invitation on the day of her antenatal visit. All women disclosed and provided the invitation.

Women provided several interconnected explanations for their decisions to immediately disclose and invite partners. Women generally wanted to take antiretroviral medication to protect their baby's health and their own health, and felt this was impossible without disclosure. Some were additionally concerned about the partner's wellbeing and believed the acts of disclosing and inviting would lead to male partner testing, condom use, and, if needed, HIV treatment initiation. For a few women, an intrinsic desire to avoid secrecy within a relationship was a key motivator.

For many women, disclosure was motivated by a desire to protect one's own health. They wanted to take antiretroviral medication and considered HIV status disclosure to a male partner to be a necessary first step. One woman explained: *"I wanted to let him know... because I was taking medication, so it was like I would be taking medication in the same house...So should I take it secretly, the medication? Where could I put them for him not to see them?"* (couple 6, female). Another explained:

"I disclosed because it can happen that I get sick and he will be surprised to know that I was on this medication. Or else he finds out that I am receiving these pills and am hiding them from him. Or I am receiving the pills and not taking them. I felt that in the event that I get sick he won't be happy to know my status then and it's better I disclose now"

(female, couple 9).

Other women considered protection of the baby the main motivator. Women's desires to take medication were often connected to their desire to protect the baby. Women believed this protection was not possible without engaging their partner. One stated: *"I wanted to receive counseling with my husband in order to protect the baby who is yet to be born"* (couple 16, female). Another remarked, *"I was thinking that I am pregnant, so even if I keep it a secret, how am I going to take the medication? So I will also affect the baby to be what? To be born. It is better to do what? To say it [my status]"* (couple 10, female).

For others, helping the partner was a key motivation. Some women considered disclosure as an essential first step for encouraging partner HIV testing and safer sexual behaviors. This woman explained: *"I wanted him to know, to also get tested, and to know his status—and for him to see how we are going to take care of ourselves"* (couple 8, female). Another believed, *"He should know because he is the one that I have sex with"* (female, couple 7).

Finally, for some, secrecy within a marriage was considered intrinsically bad. One explained: *"What really made me disclose to him was the marriage. I should say, I and my husband are one body so I thought it was not good to hide from him since we are one"* (couple 11, female). Another said, *"It could have been impossible to keep it as a secret"*

because I am married. Because if I can keep it as a secret, it is not a good thing because we are a family”(couple 4, female).

Even though nearly all women disclosed, some were initially hesitant and worried to do so. Many worried about being abandoned, sent away, or blamed for bringing HIV into the relationship. One woman said: *“Mind you he is a difficult man, quarrelsome, so I had to figure out where to start...some men will accuse you because you are the first to be diagnosed with the virus. They begin to blame you.... So [I thought] if I told him, he will say I am the one to blame just because my issue is known”* (female, couple 14). Another remembered, *“I was expecting that maybe just telling him, he would start saying ‘go to your home [where you were born]’”* (female, couple 10). Another woman stated: *“I was afraid that maybe he would chase me out of the house”* (couple 19, female). However, in nearly all cases, the motivations outweighed these fears.

In spite of these fears, most men showed a high level of acceptance of their partners' HIV status, and this was often related to the hope associated with taking antiretroviral drugs. One woman recalled her husband saying *“There is no problem [that you are HIV-positive]. The good thing is that we have drugs”* (couple 21, female). Many women described their husbands providing reassuring words. One woman explained: *“He told me that these things just need to be accepted. ‘You do not have to be sad because that will make you die fast. You do not have to think too much. You should just take the drugs as you take Panado...Many people are on treatment. They have good health as long as they take their drugs’”* (couple 20, female). Another woman was surprised by her partner's reaction: *“I did not expect him to respond the way he did, but he actually said ‘let us live positively. It is not the first time. People are surviving. But as for you, do not rush into feeling sad or upset... Because it is not the end of life’”* (female couple 11).

Women's and men's perceptions of the invitations and tracing processes

Women considered the invitations to contain an authority and credibility that they believed they themselves did not possess. The invitation often persuaded their partners to come to the clinic: *“When you tell your husband to go for testing, he does not go, but because of the invitation, he comes”* (couple 22, female). Another explained that her husband *“may not have come [without the invitation]...He could have been thinking I was lying”* (couple 20, female). A third found that the invitation gave her strength: *“Being enrolled in the study has given me courage. Had it been that I was not enrolled in the study or I was not given the invitation to give to my husband, it could have been difficult for me to tell him. But it was like they showed me a way”* (couple 19, female).

Men also considered the invitations to be compelling. One man explained, *“The [invitation] letter is what made me come. ...I realized that if they had invited me, I needed to go, to listen”* (couple 5, male). Another stated, *“the best way to invite men to the antenatal is through the invitation letter you give women to give their husbands... The letter motivates the man to come and learn about his wife's problem”* (couple 18, male).

Many men considered the mention of pregnancy in the invitation to be especially important: *“The message conveyed in the letter was enough because they are encouraging men to take*

part in promoting safe motherhood. When I realized that she was pregnant, I saw it important to come”(couple 12, male). Another explained “It is required that we men should go with them. We should take part at the women’s antenatal visits...But I was one of those [men who would not accompany their wives.] Had it not been for the invitation, maybe even today, she could have gone alone”(couple 10, male).

Of the fifteen couples in the invitation plus tracing arm, only six had been traced through the study. The other nine presented without any tracing.

For some men, the tracing, just like the invitation, added a sense of importance since it came from the clinic and represented added effort. One man explained what phone and physical tracing signified to him: *“Someone cannot waste his time and be following me up for nothing. It meant that there was something important there...If someone leaves here [the clinic] and goes to communities like ours, I also need to show interest and come”(couple 1, male).* One woman explained that the question of coming to the clinic was a source of debate, and having her partner hear from the clinic helped sway her partner. She explained: *“We were still arguing about this. The phone call made him understand the need to present to the clinic”(couple 15, female).*

Others considered tracing to be unnecessary, as they were planning to go to the clinic anyway. One man explained, *“I would still have come...I went to the village to visit my ill mother... When they called me I said ‘aaah, I will come some other time,’”(couple 15, male).*

Male motivations and deterrents to clinic attendance

For most men, HIV testing was a motivator, but for others it was a deterrent. Most men were aware that they would be tested for HIV when they presented to the clinic and for many this was a source of motivation: *“Because of my wife’s status, I also needed to get tested, as I had never been tested. There was a plan to get me tested so that I also know my status”(couple 1, male).* Another explained, *“there is no reason to be scared of getting tested when your partner is positive. It is better that you also know your status so that you plan well for the future together. I was prepared to follow the advice that the health workers were going to tell me so that I live longer”(couple 3, male).* Other men knew they would be tested, and this elicited fear. One was initially hesitant to go to the clinic due to fear of learning his status, but was ultimately convinced by his mother (couple 9, male). Another came on his own in spite of his fears. He explained: *“prior to taking part in this program I had never been tested for HIV...I was afraid to get tested for HIV. When my wife gave me the invitation letter after her antenatal care visit to the clinic, I decided to come to the clinic and get tested for HIV”(couple 3, male).*

For many men, the motivation to come to the clinic stemmed from feelings of love and support for their partners. For example, one man stated *“If you have been invited by the hospital, you need to go. If you do not go, you do not love your wife”(couple 13, male).* Another recalled, *“I managed to come to show love to my wife...I saw that it was a very good thing to come with my wife as a family”(couple 16, male).*

For many men, the transport allowance was a motivator, for others it was not. For some men, receiving a transport allowance was not part of their decision to come to the clinic. For example:

“I could have come because what matters is not the money. Money does not buy life but what you are doing is preserving our lives. So we should not say that because they reimburse transport then I should go. No, what is important is to receive the counseling and see how we can use it”

(couple 17, male).

Others considered the transport money to be important to cover the costs and make it worthwhile to disrupt their routines. One man reported, *“Had it been that there was no transport reimbursement, it could have been difficult since ways of earning income are not easy”*(couple 16, male). Some women agreed that the transport reimbursement was necessary: *“because it’s like their plans are disturbed because they force themselves to come. I think it will be somehow difficult [for men to come] when you stop providing transport”*(couple 18, female).

Lack of interest was a deterrent for some. Among the 22 couples in the IDI sample, four men failed to come to the clinic in spite of the invitation and/or tracing interventions. These men were not interviewed, but their female partners explained their understanding of male partner non-attendance. One woman reflected: *“To say the truth, he was not interested to come at all. I know my husband....I told my husband that I was going to the clinic and I told him that they might ask about his whereabouts. He told me that he is not coming to the clinic”*(couple 11, female). When asked to elaborate on why he would not come, she explained:

“He insisted that he knows that he will be tested for HIV and given medication. He said that he is not sick, his health is ok. He does not want to start taking ARVs because [he believes] they will make him weak and by the time he gets sick the medication won’t respond well to his body. He said that he knows that is what is going to happen if he comes here.”

The other three women explained that the reasons for non-attendance were logistical. For one, her husband was only available on Saturdays: *“If he was not interested I would have told you. He is just busy. He really wanted to come but he is busy...It is important that he should come”*(couple 14, female).

Effects of CHTC on the couple

The importance of receiving results as a couple, rather than as two separate individuals, was an important theme. A common understanding of their status as a couple allowed them to support one another in coping with their illness. One woman explained, *“The most interesting thing is that we have heard it [our HIV test results] together...It is very good that we are receiving counseling together”*(couple 17, female). Learning HIV test results together allowed for a common understanding of the couple’s situation and for mutual support with a range of health behaviors. One woman explained: *“Now it is like each one of us is responsible for the other’s life”*(couple 8, female).

This mutual awareness often translated into supporting each other to adhere and make joint decisions surrounding condom use. One participant explained “*We can say that it is both of us [who agreed to use condoms] because when they were explaining we were together...Since we were together during counseling we didn’t have any problems following what we were told at the hospital*”(couple 2, female). Another stated, “*It was a mutual agreement [to use condoms]*”(couple 9, female).

Some woman who did not come with a partner lamented that they had not had the opportunity for joint counseling. The woman whose partner tested elsewhere explained: “*I will just encourage him and tell him the goodness, of coming here together... This is a good program because many men, when they hear about this [HIV status], you find that they are blaming us [the women]. ‘You were not faithful’ yet they do not know their status. But if we get tested together, we receive counseling, he will know the real facts.... and how we can protect the baby*”(couple 8, female).

Many couples reported an increased emotional connection to their study partners following CHTC. One woman said, “*Since this happened in our house, I see a big change—the way he loved me in the past, and the way he loves me now—it is different. Now is when he loves me more than before*”(couple 5, female). Another explained:

“So we have to make sure that each one of us is caring for the other...What is required, considering each other...in the way we speak... in the way we live. Because it is important that if the love was there, it should do what? Grow. So that no one should be getting worried because if the love is there, the worries go away”
(couple 16, female).

Another woman explained, “*When he came and got tested, he knew and accepted that both of us as a family have that condition. And maybe with that acceptance, the love started growing There is just an understanding*”(couple 4, female).

Not all couples experienced this change, but importantly, no couples reported experiencing worsening relationships as a result of their participation.

In Malawian culture, men are commonly the primary wage earners and provide material support to their female partners. Following CHTC, many women reported receiving greater material support. One woman said, “*At home we slept on an old mattress. After the clinic visit he made plans to buy a new one. After some days he bought a new mattress*”(couple 3, female). Another woman explained that her husband started to give her more money: “[In the past] *even if I asked him for something maybe he was denying me...But now when I ask he says ‘oh I will give you’*”(couple 7, female). This change was not experienced by all couples, but importantly no couples reported any negative economic impacts as a result of the intervention.

Discussion

We identified a common set of narratives in the IDIs we conducted with HIV-infected pregnant women and their male partners enrolled in a partner notification trial within an

Option B+ context in Malawi. Nearly all women disclosed their HIV-positive status to their male partners on the day of HIV diagnosis. They also presented them with the clinic invitation to attend a CHTC visit; they often gave the invitation despite concerns of negative reactions. The invitation and the partner tracing, carried a degree of authority that the woman herself did not have. Many men felt compelled to go to the clinic either for health-related reasons or from a sense of familial obligation. For some men, the transport allowance was also important because it enabled them to take off of work and get to the clinic. For a few men, clinic attendance was not feasible, typically for logistical or work-related reasons. Hearing results together through CHTC typically led to a range of relationship benefits, including a greater sense of emotional connection or greater material support for female partners.

Our observations can be understood through the lens of Interdependence Theory, which has been used to explain the role of dyadic dynamics in HIV-related behaviors (Lewis, 2006), including in sub-Saharan Africa (Montgomery, 2011; Darbes, 2014). This theory identifies a combination of actor, partner, and joint effects for behavior change within couples. Each person's behavior can be affected by that person (actor effects), his or her partner (partner effects), or a combination of both together (joint effects). Prior to CHTC, actor effects were predominantly at play. Women independently attended ANC, received their initial HIV test results, and disclosed their HIV status. Once disclosure occurred, partner effects became more prominent. For example, women could then encourage partners to come to the clinic for CHTC. The process of receiving CHTC and hearing HIV test results together, resulted in an increase in joint effects. Following CHTC, couples took mutual responsibility for their wellbeing as a family. This often resulted from joint discussions and consensus by both members of the couple. These joint effects may not have been apparent had both members of the couple tested separately. This theory may help to explain the substantial improvements in condom use and clinic attendance observed following CHTC throughout the region (Denison et al., 2008; Kennedy et al., 2010; Rosenberg et al., 2013). Hearing results together is greater than both people hearing results separately.

Clinic-supported interventions can have a substantial impact on CHTC uptake, a phenomenon observed in several trials throughout the region (Byamugisha et al., 2011; Mohala, 2011; Nyondo et al., 2013; Nyondo et al., 2015). The partner invitation helped women disclose their HIV status to their male partners. Women believed the invitation contained a degree of authority that they themselves did not possess. Men indicated that receiving the invitation convinced them that clinic attendance was necessary. In a qualitative assessment conducted in Blantyre, Malawi, men also preferred an invitation over word of mouth and believed a message coming from the clinic was more persuasive than one coming from the woman herself (Nyondo et al., 2013). For many, the tracing interventions operated in a similar way. Men believed that if the clinic put in the effort to trace them, there was an important reason behind it. This perception was also echoed in the Blantyre-based assessment (Nyondo et al., 2013).

Within couples, feelings of love and warmth motivated several different behaviors. For example, men explained that love motivated them to accompany their wives to the clinic for CHTC. Women felt emotionally supported following CHTC, often more than they had prior

to learning their HIV status. These themes have been observed in other couple-based interventions in sub-Saharan Africa. An analysis of couples enrolled in a pre-exposure prophylaxis (PrEP) trial showed that love between couples motivated support for adherence behaviors (Ware et al., 2012). In a microbicide trial, HIV-uninfected women who enrolled with HIV-infected male partners experienced couple support for adherence and care-seeking, whereas women who enrolled alone did not (Montgomery, Watts and Pool, 2012). The women who co-enrolled with a partner experienced common motivations and joint coping mechanisms; women who enrolled alone reported individual motivations, lack of partner cooperation, and difficulties with adherence.

Although high rates of intimate partner violence (IPV) are reported in sub-Saharan Africa, and some women feared IPV at baseline, we did not have any reports of IPV stemming from the study. In fact, we observed a high degree of intimate partner *support* following CHTC. The high levels of fear and low levels of violence have been observed previously [Medley et al., 2004] The apparent contradiction between high reports of IPV in the region and low reports of IPV following CHTC have several possible explanations. First, a substantial share of couples are likely to be in relationships that simply are not violent. Second, the women in the most violent relationships may have avoided CHTC by declining enrollment, providing false partner locator information, or avoiding their follow-up visit. Third, women were encouraged to consider the safest times and ways to disclose, taking into consideration what they know about their partner and his past behaviors, and this may have allowed for safer disclosure experiences. And finally, an HIV diagnosis was received with a greater acceptance, and thus may not have been a trigger for IPV.

This general sense of acceptance about one's own status and one's partner's status were surprising, along with the high prevalence of disclosure and limited discussion of stigma. Prior to Option B+, PMTCT patients had stronger concerns about male partner reactions, disclosure, and stigma, and greater difficulties with coping (Bwirire, 2008). Similar to other qualitative assessments conducted within Malawi's Option B+ program, provision of ART conferred hope about positive outcomes for the infant and the woman herself (Katirayi et al., 2016, Elwell, 2016). It appears that as HIV is becoming a more manageable illness, people are approaching their own and their partners' HIV status with greater acceptance.

Limitations

These narratives provide in-depth information about the lived experiences of some couples. However, we did not capture the full range of experiences, and results are not representative of all couples. The few eligible women who refused participation and those who did not present for follow-up may have been in more difficult relationships. Additionally, the few men who did not present for IDIs were different from those who did participate, as they were less likely to have presented for CHTC. Thus, there is likely a subset of less favorable narratives that we did not capture. Nonetheless, our findings suggest that positive relationship and behavior changes are not restricted to those couples who initially present to CHTC together—a large subset of those who are actively invited for CHTC can also benefit.

Conclusion

Within the Option B+ program, early default is common, often due to an inability to disclose and invite male partners (Tenthani et al., 2013; Flax et al., 2017). Our results show that relatively simple invitation and tracing interventions can play a role in helping women with this difficult process through couple HIV testing and counseling. This, in turn, can have important impacts on a range of health-related behaviors for HIV infected women, their male partners, the relationship itself, and ultimately on health outcomes.

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Table 1.

Study Population

Couple Number	Status	Arm	Female interviewed	Male interviewed
1	Concordant	Invitation + tracing ^b		
2	Concordant	Invitation + tracing		
3	Discordant	Invitation		
4	Concordant	Invitation + tracing		
5	Concordant	Invitation		
6	Discordant	Invitation		
7	Concordant	Invitation + tracing		
8	Discordant (unconfirmed) ^a	Invitation		
9	Concordant	Invitation + tracing		
10	Concordant	Invitation		
11	Unknown	Invitation + tracing ^b		
12	Concordant	Invitation		
13	Concordant	Invitation + tracing ^b		
14	Unknown	Invitation + tracing ^b		
15	Concordant	Invitation + tracing ^b		
16	Concordant	Invitation		
17	Discordant	Invitation + tracing		
18	Concordant	Invitation + tracing		
19	Discordant	Invitation + tracing ^b		
20	Concordant	Invitation + tracing		
21	Unknown	Invitation + tracing		
22	Discordant	Invitation + tracing		

^aThe female partner reported that the male partner tested elsewhere during the course of the study and was found HIV-negative.

^bThese couples were traced in the main study prior to presenting to the clinic.

Caption: Table 1 presents describes the HIV status, study arm, and interview status of each couple with at least one in-depth interview.

Table 2.

Population Characteristics

	Women		Men	
	N		N	
Age in years				
16–25	9		1	
26–35	10		10	
36	1		6	
Education				
Primary incomplete	10		8	
Primary completed	3		0	
Secondary incomplete	3		6	
Secondary completed	4		3	
Earns salary				
No	18		12	
Yes	2		5	
HTC history				
Never tested	3		4	
Previously tested	17		13	
Duration with partner				
1 year	6		5	
2–5 years	6		6	
>5 years	8		6	
Trimester				
2nd trimester	17		Not applicable	
3rd trimester	3			
First pregnancy				
No	16		Not applicable	
Yes	4			

Caption: Table 2 presents descriptive statistics of the study population that participated in in-depth interviews.