

Womens experiences of HIV testing and counselling in the labour ward: A case of Bwaila hospital

G Hamela¹, T Tembo¹, N.E. Rosenberg^{1,2},
I. Hoffman², C. Lee², M. Hosseinipour^{1,2}

1. University of North Carolina Project, Lilongwe Malawi

2. University of North Carolina School of Medicine, Chapel Hill,

Abstract

Introduction

HIV counseling and testing during labour can be emotional, but is important because it allows mothers and babies to receive PMTCT prophylaxis if previous identification of HIV infection has not occurred. The study explores how HIV testing and counseling during early labour affects women.

Methodology

This was a qualitative exploratory study to understand women's experiences during early labor. From September to October 2009, we conducted 10 in-depth interviews with women who tested for HIV during early labour. We recruited women who tested > 3 months previously and those who had never tested for HIV from the postpartum ward of Bwaila Hospital. Data were analyzed manually using the life story approach in order to examine and analyse subjective experiences of women and their constructions of the social world. Transcripts were read multiple times to understand meanings which participants attached to their experiences. We coded data according to emerging themes and subthemes.

Results

Ten women 20-35 years were interviewed. Eight women had unknown HIV status while two had known HIV results but re-tested to update their status. Four women were found HIV-positive while 6 were HIV-negative. The primary theme was that women appreciated and accepted HIV testing and counseling. Testing was accepted as a necessary step to protect the infant from HIV infection. Counseling was viewed as helpful for acceptance of HIV status. One key subtheme was that HIV positive women experienced disappointment about their HIV diagnosis, though this was outweighed by the knowledge that one could protect her infant. All women viewed the short time to complete the counseling and testing procedures as favourable.

Conclusion

Labour testing is acceptable and should be promoted to enhance PMTCT services by identifying HIV positive women with unknown status. Counseling helps women to accept being found with HIV and seek appropriate services.

Introduction

HIV testing of pregnant women has traditionally been conducted during antenatal care (ANC) so as to detect HIV early in pregnancy when important treatment regimens can be implemented.¹⁻³ However, some socio-cultural or economic factors prevent women from seeking testing during pregnancy⁴ and sometimes ANC facilities experience bottlenecks that limit availability of HIV testing. Thus many women who present to labour wards are unaware of their HIV status either because they did not receive ANC⁵ or they did not receive HIV testing during ANC.¹ Provision of HIV testing in labour provides an opportunity to reach susceptible women and infants.^{1,6}

Although early labour ward testing identifies HIV positive mothers and facilitates HIV prophylaxis^{7,8} ethical issues about the emotional impact of receiving an HIV positive result exist. The extent to which a woman in labour can give informed consent is questioned.⁹ The understanding of the difference between routine testing and mandatory testing in these women is also questioned. The women may be

concerned that refusal to take an HIV test may affect their health care delivery. Women with unknown HIV status in labour represent a vulnerable group in a vulnerable situation. They are in a physically and emotionally demanding situation of labour with their focus on anticipated delivery and pain alleviation.¹⁰ A woman who hears that she is HIV infected when she is in labour or first bonding with her baby may forever link the receipt of news of HIV status with the arrival of the baby.¹¹ However, these concerns may be less salient for women in early labour when pain is not severe and delivery is still many hours away.

We explored experiences of women offered HIV counseling and testing during early labour and sought to understand how they were affected by news about their HIV test results.

Methods

This was a qualitative exploratory design using in-depth interview approach. The study was conducted within the PMTCT program operating at Bwaila hospital in coordination with the University of North Carolina (UNC) Project in Lilongwe, Malawi. Bwaila Hospital offers 24 hour HIV counseling and testing in the labour ward. Government and UNC trained nurses and counselors provide the HIV counseling and testing. All pregnant women in early labour with unknown HIV status presenting to the labour ward are offered voluntary HIV testing and counseling unless they chose to decline testing. Early labour is when the cervix begins to efface and dilate, and contractions are still relatively mild. The HIV testing was done using the Unigold method and the opt-out counseling method was used. Women were encouraged to ask questions at any time during the counseling and testing sessions.

From September to October 2009, we conducted 10 in-depth individual interviews (IDI) with women who accepted HIV testing in the labour ward. The labour ward counselors identified eligible women and informed study staff. Study staff recruited interested patients after they delivered, in the postpartum ward. A nurse and social scientist interviewed women in the confidentiality of the private study room, immediately after they were discharged from the postpartum ward.

The interviewers used a guide containing open-ended questions and structured, closed-ended questions. The questions focused on the reasons for testing, emotional experiences of taking an HIV test during labour and its effects on labour and delivery, and perceptions about appropriate timing for HIV testing. Interviews were conducted in Chichewa and audio-recorded. The interviewers transcribed and translated the recordings into English. The quality of the transcription and translations was checked by the investigators.

We analysed data using life story approach. This is a form of qualitative research that seeks to examine and analyse subjective experiences of individuals and their constructions of the social world.¹² This approach gathers, analyses and interprets the stories people tell about their lives. Each sentence was read multiple times to obtain meanings. We coded data according to meanings emerging from the responses we got from the participants. Categories and

concepts were generated from the codes. Summaries and memos were created for each code, category and concept. Major and minor themes were identified.

The National Health Sciences Research Committee of the National Research Council of Malawi and the Office of Human Research Ethics of the University of North Carolina at Chapel Hill approved the study. All respondents provided written informed consent prior to participation. Participants were not given any compensation for participating. No identifiers were used for participants.

Results

Participant characteristics

In total, ten women participated in the study. The mean age was 28. Six women were married, and four were single. Eight women attended primary school, one had no formal schooling, and one had a college education. All were housewives by occupation. Eight women presented to labour ward with unknown HIV status. Two women were retesting to confirm their status. Four women had an HIV positive result, and six had an HIV negative result. All women opted to receive their test results as soon as they were available.

Experience of receiving HIV testing during early labour

An overarching theme was that women described testing during labour as a good experience. There were many different reasons for this. Many reported that HIV testing was beneficial because it could help protect their babies from HIV infection. One woman said: "when you are tested and told the results, if you are HIV positive they help you to take preventive measures to avoid transmission to the baby and follow right procedures." Another woman expressed feeling a similar motivation even before testing: "I didn't have fear [to test] because I wanted to protect my baby". Others valued learning their own HIV status. One stated simply "it helps one to know their status, and another reflected "I was happy that I do not have HIV."

In spite of this overarching theme, HIV-negative women were less affected by their results than HIV-positive women. Many HIV-positive women expressed an element of surprise or disappointment. One woman stated: "I was very much concerned because it [testing HIV-positive] is the thing which I was not expecting..." Another one noted "I was concerned [about learning my HIV-positive result] because during antenatal [care] testing was not compulsory, so I had no interest to get tested by then." For these women, the disappointment was often tempered with the desire to protect the infant: "I was disappointed when I was told my test result but then I was determined because I wanted to protect my baby". Another stated: "test results did not affect me, I was just thinking of delivering the baby"

Another minor theme was that women who had knowledge of labour ward testing prior to labour were more accepting than those who knew nothing. Specifically, many women who tested during antenatal visits were prepared to re-test during labour. One woman said; "there was nothing up-setting because I was expecting it that when 3 months elapses after the first test, I have to retest." Another woman explained, "No, I was not worried because I test routinely so I know my status."

Timing of test results was another topic that was discussed extensively. Within the Bwaila setting, women had a

positive perception about time interval between testing and counseling. They reported that counseling and testing took less than 30 minutes, which they viewed favourably. They reported that counselors had performed the testing and counseling procedures in the early phase of labour, when labour pains were not severe, and this timing was appreciated. Participants elaborated that they had been eager to receive their test results. They preferred receiving test results as soon as they were available, and disliked the idea of withholding results until delivery. Women felt they would be emotionally disturbed or stressed if results were not disclosed before delivery, and this stress would also affect their concentration on delivery.

Experience with Counseling during early labour

A key theme was that women found the information provided to be adequate. The information included benefits of testing, how to live a healthy life if HIV-positive, how to prevent re-infection of HIV, and how to protect oneself from contracting HIV if found HIV-negative. Women stressed the additional information helped them to make an informed choice of testing. For example, one woman explained that "the counselor told me about the advantages and disadvantages for testing during pregnancy" Another stated: "I was told to continue following instructions that we should continue to be faithful and also encourage our friends [husbands] to go for HIV testing.

Another theme was that the counseling provided helpful emotional support. Women reported that counseling helped them to test without fear because they understood the importance of testing. One woman stated that counseling helped her feel comfortable with routine testing. "Right now I feel that every 3 months is a good time to go for HIV testing so that you know your HIV status, despite being HIV negative or positive and I will continue going for the HIV test." The participants reported that counseling had emotionally prepared them to receive the positive result. For example, one remarked "the counsellor told me to be stable and not to be disappointed about the positive outcome."

Women also reported being satisfied with confidentiality and privacy of patient information. Women reported that patient admission files were being handled and reviewed by health workers in the labour ward only. Furthermore they expressed that in spite of the busy setting there was privacy. "The time the counselor was taking my specimen I was alone, even when she was disposing the specimen kits, there was no one who came in." Additionally, women were satisfied with record-keeping. "When I went to delivery room, the nurse attending to me she took my file to see what was written on it. I did not see her discuss with anyone".

Discussion

While labour may not be the ideal time to learn one's HIV status, labour ward HIV counseling and testing was well accepted and viewed positively by women who tested during early labour. Women expressed that HIV testing was important in order to be able to provide PMTCT services to the infant. They considered the counseling they received to have helped them prepare for and cope with their HIV test results. And there was no evidence that HIV counseling and testing was too upsetting to be performed during early labour.

These findings are consistent with acceptability of HIV testing among women in labour in other settings. Of the

women who were approached for HIV counseling and testing in the labour ward in Nigeria, 99.8% accepted it.¹³ Similarly, 88.3% of women accepted HIV counseling and testing during labour in Cameroon.¹⁴ Acceptability to rapid HIV counseling and testing was at 98% in a study conducted in a labor ward in India.¹⁵ In a study in the United States, labour ward testing was also found to be acceptable.⁸ Our study adds a qualitative dimension to these findings and explains why HIV counseling and testing was acceptable.

Women's preference to learn their HIV status, while in early labour and before they delivered, was similar to findings in Zambia and India.¹⁴ In those studies, failure to know the results prior to delivery was associated with lack of concentration on delivery.

Women viewed testing during the early phase of labour as possible because of its association with less pain. The study in Zambia also found that women eligible for voluntary counseling and testing during labour were not offered the service because they were in too much pain.¹ Pain may prevent mothers from engaging in meaningful communication with the health providers, making it difficult to understand health information and to give true informed consent.⁶ Thus, it is recommended that HIV counseling and testing be performed early in the labour process to ensure that afterwards women can adequately focus on the birthing process.

Women perceived the short time for completing testing and counseling procedures positively because it allowed them to access required services while in the early stage of labour. This finding is similar to a finding in Zambia on labour ward testing. About 71% eligible women were tested during the early stage of labour.¹ Testing women in the early phase of labour provided a window of opportunity for midwives to complete testing and administer treatment before delivery was imminent.^{1,16,17} Those results and ours suggest that timing of testing has implications for women's access to PMTCT services during labour.

Pregnancy and birth are times that can involve a wide range of emotions that encompass normal and abnormal stress responses.¹⁸ Approximately 10 to 15% of women develop postnatal depression, and approximately 2% develop post-traumatic stress disorder after birth.¹⁸ We found that HIV testing during labour involved emotional stress for some. Women showed different emotional reactions after learning their HIV status. HIV-positive women were disappointed, while women who were HIV-negative were relieved and happy with their results. Some of the women were shocked with their positive result which led to dejection as they were not expecting it. We did not find any evidence of post-traumatic stress disorder from testing or from having a positive result, because all our participants were interviewed within the hospital, when they had not yet digested the impact of a positive result. Follow-up to explore long-term outcomes of women who learned their HIV-positive status during labour is warranted.

Counseling can play an important role in PMTCT uptake. HIV testing of pregnant women during labor and delivery is one of the last opportunities to prevent mother-to-child HIV transmission, especially in women who do not have access to antenatal care and HIV testing services early in pregnancy.¹⁹ In Malawi, a good proportion of rural women present to the hospital labour wards without any prior antenatal care. The idea of focusing on women in labour is that there is still a window of interventions to prevent HIV transmission to

the infant.¹⁶

Our findings are timely in light of Malawi's current policy environment. In 2011 Malawi introduced Option B+, a policy which provides free, immediate lifelong antiretroviral therapy to all HIV-positive pregnant and lactating women.²⁰ Labour ward testing ensures that women who are missed during antenatal care can still access Option B+ services.^{10,19} Additionally, Malawi is considering the introduction of maternal waiting homes for women in the early stages of labour. These services are designed to promote uptake of facility delivery,²¹ but could also provide an opportunity for HIV counseling and testing during early labour.

Our study had both strengths and weakness. To our knowledge, this is first study in Malawi that describes experiences of women receiving HIV counseling and testing in the labour ward. It provides insight to understand women's personal perceptions and concerns during the laboru time period. However, the timing of the interviews and relatively small number of participants may have affected some of our findings. We interviewed women in the postpartum ward soon after giving birth, when they had not yet experienced the effects of testing beyond that, especially in the home. Thus, we do not show any experiences beyond the hospital. Considering the short time for counseling and testing, we were not able to assess comprehension of counseling information among women.

Conclusion

Although labour ward HIV testing can be an emotional and stressful experience, patients felt it was important, acceptable, and worthwhile. Counseling is key to removing fear and motivator for accepting HIV testing during labour. Counseling and testing can be feasible during early stage of labour and if it is done within a short time. The acceptability of HIV counseling and testing in the labour ward in Malawi has important implications for implementation elsewhere in Malawi and other resource- constrained settings.

Acknowledgement

This study was funded by the Elizabeth Glaser Pediatric AIDS foundation Operations Research award. We are indebted to the women for voluntarily participating and contributing to this research; without them the research would not have been possible.

Also we thank the UNC leadership in Lilongwe, PMTCT team at Bwaila Hospital and the Lilongwe District Hospital Office for their technical and administrative support towards the implementation of this research.

Nora E. Rosenberg was supported by the UNC Hopkins Morehouse Tulane Fogarty Global Health Fellows Program (R25 TW009340) and University of North Carolina Center for AIDS Research (P30 AI50410).

References

1. Megazzini, Karen M; Chintu, Namwinga; Vermund, Sten H; Redden, David T; Krebs, Daniel W; Simwenda, Maureen; Tambatamba, Bushimbwa; Sinkala, Moses; Stringer, Jeffrey S A : Predictors of Rapid HIV testing Acceptance and Successful Nevirapine. Administration in Zambian labour wards. *J Acquir Immune Defic Syndr* 2009;52:273-279.
2. Tudor Car L, Brusamento S, Elmoniry H, et al. The uptake of integrated perinatal prevention of mother-to-child HIV transmission programs in low- and middle-income countries: a systematic review. *PLoS one*. 2013;8(3):e56550.

3. Chi BH, Stringer JS, Moodley D. Antiretroviral Drug Regimens to Prevent Mother-To-Child Transmission of HIV: A Review of Scientific, Program, and Policy Advances for Sub-Saharan Africa. *Current HIV/AIDS reports*. Jun 2013;10(2):124-133.
4. Pai & Klein: Rapid Testing at labour and delivery to prevent mother to child HIV transmission in developing setting: Issues and Challenges. *Women's Health* (2009) 5 (1), 55-62
5. Malawi National Statistics Office, Macro. Malawi Demographic and Health Survey 2010. Zomba, Malawi and Calverton, Maryland, USA2011.
6. Van Lettow, Atupele Kapito-Tembo, Blessings Kaunda-Khangamwa, Emmanuel Kanike, Sonja Maosa, Medson Semba, Martias Joshua, Lughano Ndovi and Fabian Cataldo ; Increasing The Uptake of HIV Testing in Maternal Health in Malawi; Discussion paper series, No. 5 July 2012. Africa Initiative and The Centre for International Governance Innovation.
7. Baek C, Creek T, Jones L, Apicella L, Redner J, and Rutenberg N, 2009: Evaluation of HIV Counseling and Testing in ANC Settings and Adherence to Short Course Antiretroviral Prophylaxis for PMTCT in Francistown, Botswana
8. Bulterys M, Jamieson DJ, O'Sullivan MJ, Cohen MH, Maupin R, Nesheim S et al. Mother-Infant Rapid Intervention at Delivery (MIRIAD) Study Group. Rapid HIV-1 Testing During Labour: A Multicenter Study. *JAMA* 2004;;292(2):219–223.
9. De Bruyn M. and Paxton S.; HIV testing of pregnant women- what is needed is to protect positive women's needs and rights, *Sexual Health*, 2005, 2, 143-151 CSIRO publishing & MINNIS Communications. www.publish.csiro.au/journals/sh
10. Bello FA, Ogunbode OO, Adesina OA, Olayemi O, Awonuga OM and Adewole IF. Acceptability of counselling and testing for HIV infection in women in labour at the University College Hospital, Ibadan, Nigeria. *Afr Health Sci*. 2011 March; 11(1): 30–35.
11. Talan T; Newborns and AIDS: To Test, Or Not to Test, *Newsday* 20 January 2000. www.virusmyth.com/aids//news/newsday.htm
12. Marshall C. & Rossman B.G, (1999) Designing qualitative research. 3rd Edition, USA: Sage Publications.
13. Sagay A.S, Musa J, Adewole A.S (2006) Rapid HIV Testing and Counseling in Labour in Northern Nigeria setting. *Women's Health and Action Research Centre*. Accessed from www.jstor.org/pss, on 12th April 2009.
14. Kongnyuy et al; Acceptability of Intrapartum HIV counseling and testing in Cameroon; *BMC Pregnancy Childbirth*. 2009; 9:9.
15. Pai NP, Barick R, Tulsy JP, Shivkumar PV, Cohan D, et al. (2008) Impact of round-the-clock, rapid oral fluid HIV testing of women in labor in rural India. *PLoS Med* 5(5): e92. doi:10.1371/journal.pmed.0050092
16. Kourtis AP, Bulterys M, Nesheim SR, Lee FK. Understanding the timing of HIV transmission from mother to infant. *JAMA*. 2001;285:709-712.
17. Schumacher S, Norin J, Bolu O, DuBois A, Wolford J, Shaffer N. HIV testing and counseling for prevention of mother-to-child transmission at labour and delivery in Guyana. *West Indian med. j.* vol.58 no.2 Mona Mar. 2009
18. Ayers. S & Ford E., 2009: Birth trauma: Widening our knowledge of postnatal mental health. *The European Health Psychologist*, Volume 11, June 2009.
19. Bharucha KE, Sastry J, Shrotri A, Sutar S, Joshi A, et al. Feasibility of voluntary counseling and testing services for HIV among pregnant women presenting in labour in Pune, India. *Int J STD AIDS*. 2005;16:553–555.
20. Schouten EJ, Jahn A, Midiani D, et al. Prevention of mother-to-child transmission of HIV and the health-related Millennium Development Goals: time for a public health approach. *Lancet*. 2011 Jul 16; 378(9787):282-4. doi: 10.1016/S0140-6736(10)62303-3.
21. Van Lonkhuijzen L, Stekelenburg J, van Roosmalen J. Maternity waiting facilities for improving maternal and neonatal outcome in low-resource countries. *Cochrane database of systematic reviews*. 2012;10:CD006759. doi: 10.1002/14651858.CD006759.pub3.