Quality and quantity of antenatal HIV counselling in a PMTCT programme in Mombasa, Kenya

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Abstract
A recent report from a PMTCT implementation study in Mombasa, Kenya, points at an important gap between the efficacy in clinical trial circumstances and the effectiveness of PMTCT programmes when implemented in real life. Hence, the quality and quantity of antenatal HIV counselling in a routine setting were appraised. The counsellors’ social and communicative skills, duration and topics covered during pre- and post-test counselling sessions were assessed by means of the VCT assessment tools published by UNAIDS. A total of 14 group educational sessions, 66 pre-test counselling sessions and 50 post-test counselling sessions were observed and assessed. In general, the frequency and duration of the counselling was low. Crucial topics such as window period and partner involvement and follow-up support were covered haphazardly. The counsellor’s social and communicative skills were given high marks, yet information was rarely repeated or summarized. The limited time dedicated to women receiving antenatal VCT contrasts with the heavy and comprehensive load of health information and advice they are supposed to receive. Ample pre- and post-test counselling including follow-up should be pursued for optimal effectiveness of PMTCT. We propose a number of health system interventions preceded and guided by ongoing audit.

Introduction
Between 1 April 2001 and 31 March 2003, an implementation study took place in Mombasa, Kenya, investigating the feasibility and acceptability of nevirapine administration to prevent mother to child transmission of HIV (PMTCT) (Temmerman et al., 2003). An intermediate data analysis revealed suboptimal uptake and compliance rates. When taking into account the cut-off point for adequate nevirapine administration (4 h before delivery), only 36.8% of the women not lost to follow-up, reported having taken the nevirapine tablet in time (Delva et al., 2003). Qualitative research exploring the reasons why the tablet had not been taken revealed that some women did not believe they were HIV-positive, while others claimed they had not received the medication. Thus, the quality and quantity of the antenatal counselling that precedes enrolment in the nevirapine study were appraised.

Methods
Study design
The quality and quantity of voluntary HIV counselling were assessed using an observational study design. All forms and checklists were based upon the UNAIDS Tools for evaluating HIV voluntary counselling and testing (VCT) (UNAIDS, 2000), which have been indicated as a feasible and an acceptable method for assessing VCT in an operational setting (Ginwalla et al., 2002).

Subjects and setting
The study sample consisted of pregnant women attending the antenatal clinic of the Coast Province General Hospital in Mombasa, Kenya. A total of 14 group education sessions (representing 91 individuals), 66 pre-test counselling sessions and 50 post-test counselling sessions were observed and assessed.

Study protocol
Eligible participants were recruited on a voluntary basis during group education sessions and subsequent pre-test counselling sessions. Confidentiality as well as equal medical and social support were guaranteed regardless of consent or dissent for the study. In the case of participation, written informed consent was obtained. Group education sessions and individual pre- and post-test counselling sessions
were observed by a female social scientist. For each session, the duration and the topics covered were recorded on checklists. In addition, all group and individual counselling sessions were given marks for the counsellor’s social and communicative skills. Scores were calculated for four main categories:

1. The interpersonal relationship between the counsellor and her client. This involves greeting and introducing, listening actively and a supportive approach.
2. The ability to gather information from the client, including the correct use of probing, open and closed questions and summarizing the main issues discussed.
3. The readiness and fluency to give information to the client: up-to-date knowledge of HIV, repeating and reinforcing important information and allowing the client to absorb the information or ask questions.
4. The counsellor’s skills on handling special circumstances such as managing the client’s distress and ensuring the maximum of privacy.

Marks were given as followed: 1 for poor, insufficient handling of the counselling session; 2 for moderate handling and 3 for correct handling.

**Data analysis**

Data were entered and analysed using SPSS 11.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistical parameters (mean and standard deviation (SD)) were used to assess the central tendency and dispersion of the time spent on counselling. A Mann–Whitney U-test was done to compare the mean duration of post-test counselling between HIV-negative and HIV-positive individuals. A Kruskal–Wallis test was done to examine inter-counsellor variation.

**Results**

Between 3 October and 10 December 2002, a total of 14 group educational sessions, 66 pre-test counselling sessions and 50 post-test counselling sessions were observed and assessed. Twenty-five out of 50 post-test counselling sessions involved HIV-positive clients. Of nine participants, both pre- and post-test counselling. However, both counsellors and the observer assured us that clients seldom received more than one post-test counselling session.

The mean duration of the group educational sessions was 33.1 min (SD = 6.4 min). The mean duration of the individual pre-test counselling sessions was 6.6 min (SD = 4.8 min and two extremes of 20 and 34 min) (Figure 1). Post-test counselling for HIV-positive women required more time than post-test counselling for HIV-negative women ($P < 0.001$): 38 min (SD = 10.3 min) versus 7.6 min (SD = 4.4 min) (Figure 2). The inter-counsellor variations of time spent on pre-test counselling, post-test counselling for HIV-negative women and post-test counselling for HIV-positive women were not statistically significant.

**Social and communicative skills**

Table I shows that the mean scores for the four categories of social and communicative skills were high to maximum scores. These mean scores were consistently high for all counsellors, both in pre- and post-test counselling. However, some qualitative aspects of the observed individual counselling were given low scores: summary and repetition of information and maintaining privacy for the patient.

**Content of the counselling**

**Pre-test counselling.** During the group education sessions, all topics except the window period, were discussed and explained as pointed out in the Kenyan guidelines for counselling of pregnant women. Analysis of the topics covered during the individual pre-test counselling sessions, showed...
that the counsellor mainly checked if the information given during the preceding group educational session was well understood. Furthermore, the process of HIV testing was explained and the patient was given the opportunity to ask questions. The patient was invited to sign informed consent if she agreed to be tested. Finally, she was told to come back for the test results 1 or 2 days later.

**Post-test counselling.** 

**HIV-negative patients.** In most cases, the post-test counselling of HIV-negative patients merely consisted of disclosing the test result. The window period of the test and possible false-negative results were not discussed in 64% of the subjects. Only in 20% of the HIV-negative patients was additional information about safer sex and condom use given, and in 24% the counsellor recommended partner involvement in VCT.

**HIV-positive patients.** Immediate emotional reactions were not dealt with in 80% of the HIV-positive women, and in 84% of the HIV-positive cases, the counsellor did not check if follow-up support was available outside the clinic. Information on infant feeding and explanation of the nevirapine regimen were given in 84 and 88% of the cases, respectively. Serostatus disclosure to the partner and partner involvement were discussed in all cases. An appointment at 34 weeks of pregnancy to collect the drugs was made in 84% of the cases.

**Discussion**

While many studies in the past have focused on the uptake rate of VCT and its determinants, remarkably little is known about the dynamics, duration and intrinsic quality of voluntary HIV counselling and testing (Kowalczyk et al., 2002; Pronyk et al., 2002; Dadian et al., 2003; Isezuo & Onayemi, 2004; Westheimer et al., 2004; Matovu et al., 2005). However, studies assessing the acceptability and feasibility of VCT do suggest that issues of confidentiality between counsellor and patient, quality of VCT services and the counsellor’s sensitivity to the women’s fear of stigmatisation and partner violence determine successful implementation of VCT (Maman et al., 2001; Nuwaha et al., 2002; de Paoli et al., 2004; Medley et al., 2004). With regard to the duration of individual counselling, we recorded much shorter antenatal HIV counselling sessions than the standards in developed countries. Similar findings from Bangkok, Nigeria and rural

![Figure 2. Duration of post-test counselling sessions, by counsellor and HIV status.](image)

![Table I. Social and Communicative skills.](image)

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South Africa have been reported (The Bangkok Collaborative Perinatal HIV Transmission Study Group, 1999; Pronyk et al., 2002; Isezuo & Onayemi, 2004). Furthermore, compromised effectiveness of HIV counselling has been adduced to lack of follow-up support after diagnosis, as observed in this real-life situation (van Dyk & van Dyk, 2003).

In addition to highly limited quantity of counselling, our observational study reveals that a significant number of topics were not covered in HIV-negative nor HIV-positive women. We wish to discuss two major shortcomings that are likely to significantly impact on the effectiveness of antenatal HIV counselling. Firstly, we ascertain that hardly any effort was being made to prevent HIV infection in women who tested negative. Although explicitly included in the checklists of the PMTCT counselling manual for counsellors in Kenya (Population Council, 2002) and the WHO guidelines for HIV counselling in resource constrained settings (WHO, 2004), topics regarding safer sex and condom use as well as VCT for the male partner were covered haphazardly. However, this group of pregnant women (and their husbands) are at increased risk of acquiring HIV infection in comparison to the average population. Not only do most of them belong to relatively young age groups which are known to have higher HIV incidence than older age groups, but pregnancy indicates unprotected sex which obviously increases the risk of HIV infection. Therefore, we propose that increased emphasis be placed on risk-reduction counselling for HIV-negative women. In view of the already existing staff shortage and high workloads, this may mean employment and training of extra personnel and upgrading of infrastructure for antenatal VCT.

Secondly, we wish to call attention to the lack of partner involvement in antenatal VCT. While it has been shown that partner involvement in VCT increases the uptake of nevirapine administration, formula feeding and condom usage (Farquhar et al., 2004), rates of partner involvement tend to be low (Painter, 2001). In this observational study, only one male partner was pre-test counselled along with his wife, and one (different) male partner was individually post-test counselled. This is clearly a missed opportunity for primary and secondary HIV prevention in male partners. Moreover, counsellors could have mediated serostatus disclosure, thus lowering the threshold for HIV-serostatus disclosure by partners in the process of antenatal VCT (Painter, 2001; Pool et al., 2001; de Paoli et al., 2004).

Conclusion

HIV counselling for pregnant women and a fortiori for HIV-positive mothers-to-be involves a heavy and comprehensive load of health information and recommendations (National Aids Control Council, 2001). Therefore, ample communication is essential to increase the patient’s self-efficacy that is required for follow-up at 34 weeks, compliance to the regimen at the time of delivery, and follow-up at 6 and 14 weeks after delivery (Rutenberg et al., 2003). However, there appears to be a discrepancy between the quality and quantity of HIV counselling in this antenatal care setting. Due to excellent social and communicative skills of the counsellors, high quality counselling was provided. On the other hand, minimum time was spent on individual pre- and post-test counselling, making it highly doubtful that the goals of VCT – primary prevention, secondary prevention, PMTCT and coping with serostatus – were reached. With regard to PMTCT, the limited time dedicated to women receiving the HIV diagnosis during pregnancy is not in balance with the crucial role of counselling in PMTCT. In order to achieve longer, more frequent and more comprehensive antenatal VCT sessions, we propose increased investments in extra staff, training and upgrading of infrastructure for antenatal VCT, provided that these health system interventions are preceded and guided by ongoing audit. Such research-based tackling of barriers for providing VCT has been shown to significantly improve the acceptability, uptake and quality of VCT, both in urban and rural settings (Pronyk et al., 2002; Urban & Chersich, 2004).

Acknowledgements

This research has been realized with a grant from the Flemish Inter-University Council (VLIR). We thank the faculty of Medicine and Health Sciences of Ghent University, Belgium, for providing logistical support and Professor Georges Van Maele of Ghent University, Department of Medical Statistics, for assisting with statistics.

References


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