Challenges and Successes of HIV Voluntary Counselling and Testing Programme in Antenatal Clinics in Greater Kingston, Jamaica

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ABSTRACT

Issues: *Voluntary counselling and testing (VCT) is a critical issue impacting HIV disease management from a national and global perspective. In Jamaica (population 2.6 million), 2% of women in antenatal clinics are HIV-positive and mother-to-child-transmission (MTCT) accounted for 7% of all reported cases in 2002. Notwithstanding this, VCT was* ad hoc *and not standardized. In 2003, a structured VCT programme was developed islandwide with over 300 VCT service providers and 16 qualified trainers.*
Description: *We describe the challenges and successes of VCT provided by five trained research nurses in the Perinatal HIV/AIDS Programme in Kingston which services 19 000 pregnant women per year in three major maternity centres and their 42 feeder antenatal clinics.*
Lessons learned: *The VCT model used was group education, opt-out individual testing, individual post-test counselling for seropositives and informing seronegatives of their negative status. Major challenges encountered included lack of quality control of the counselling process and lost opportunities for un-booked women who presented in labour. However, successes enjoyed included client assessment of risk behaviours with appropriate lifestyle changes, increased uptake of HIV testing and adherence to care for themselves and their infants, as well as reduction in stigma.*
Recommendations: *VCT has proven to be an important intervention that enabled improvement in the awareness, prevention and control of HIV in Jamaican pregnant women. Nurses who are appropriately trained in VCT can play a pivotal role in successful provision of VCT services.*

Retos y Éxitos de un Programa de Asesoramiento y Prueba en Clínicas Prenatales en Greater Kingston, Jamaica

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RESUMEN

Cuestiones: *El asesoramiento y pruebas voluntarios (APV) constituye una cuestión crítica cuyo impacto sobre el tratamiento de la enfermedad por VIH reviste importancia nacional y global. En Jamaica (con una población de 2.6 millones) 2% de las mujeres en las clínicas de atención prenatal son VIH positivas y la transmisión madre a hijo (TMAH) representa el 7% de todos los casos reportados en 2002. A pesar de ello, el APV fue practicado* ad hoc *y de manera no estandarizada. En el año 2003, se desarrolló un programa de APV a lo largo de toda la isla, con más de 300 proveedores de servicio y 16 entrenadores calificados.*
Descripción: *El presente trabajo describe los retos y éxitos del APV ofrecido por cinco enfermeras entrenadas en investigación, en el Programa Perinatal VIH/SIDA en Kingston, el cual ofrece servicios a 19 000 mujeres embarazadas por año en tres centros principales de maternidad y sus 42 clínicas prenatales asociadas.*

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Presented at the 18th Annual Association of Nurses in AIDS Care (ANAC) Conference, November 2005, Orlando, Florida and abstracted in the *E-Journal of the International AIDS Society*, 16th Annual HIV/AIDS Conference, Toronto Canada, Aug 13–16, 2006; Abstract #: CDC 1178.

Funded by the Elizabeth Glaser Paediatric AIDS Foundation International Leadership Award 1-ILA-11-01 and the Pfizer Foundation Fellowship (to Celia DC Christie); The University of the West Indies and the Ministry of Health, Jamaica.

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Lecciones aprendidas: *El modelo APV usado fue educación grupal, pruebas individuales con opción a negarse ("opt-out"), aconsejamiento individual posterior a la prueba para seropositivos e información a los seronegativos de su estatus negativo. Los mayores desafíos encontrados incluyeron falta de control de la calidad de los procesos de asesoramiento y pérdida de oportunidades para las mujeres no registradas que se presentaron estando ya de parto. Sin embargo, los éxitos alcanzados incluyeron el asesoramiento de los clientes con respecto a los comportamientos de riesgo con cambios apropiados de estilos de vida, aumento de la toma de pruebas de VIH y la adhesión a encuitar de sí mismos y sus niños, así como la reducción del estigma.*

Recomendaciones: *El APV ha demostrado ser una importante forma de intervención que hace posible mejorar la conciencia, prevención y control del VIH en las mujeres jamaicanas embarazadas. Las enfermeras que están propiamente entrenadas en APV pueden desempeñar un papel cardinal en el ofrecimiento exitoso de servicios de APV.*

BACKGROUND AND PURPOSE

Mother-to-child HIV transmission (MTCT) accounts for the majority of HIV infections in children from developing countries. In Jamaica, an estimated 25 000 persons were living with HIV/AIDS (1) with 2% of all pregnant women HIV-infected in 2002 (2). Mother-to-child-transmission accounted for 7% of all reported AIDS cases (3). Voluntary counselling and testing (VCT) is one of the many strategies to prevent, detect and reduce HIV/AIDS and other sexually transmitted infections (STIs). Voluntary counselling and testing is a critical issue impacting HIV disease management from a national, regional and global perspective. This is the process by which an individual undergoes counselling to enable him/her to make an informed choice about being tested for HIV (4).

Voluntary Counselling and Testing has been practised in Jamaica for as long as there has been sexually transmitted infections, however, there was a lack of standardization (5). It was being performed on an *ad hoc* basis by many organizations including the Ministry of Health (MOH) clinics, non-governmental organizations (NGOs) and private healthcare providers. At the request of the MOH and USAID Jamaica, the Johns Hopkins University affiliate, JHPEIGO Corp, collaborated with the MOH and conducted a needs assessment of VCT services in Jamaica. It was found that the service providers lacked current information on HIV/AIDS and did not have a client-based approach to counselling and behaviour change (5). As a result, JHPIEGO's Training in Reproductive Health Project began in 2000 (6). This deficiency resulted in the design of a national programme to build capacity in HIV-VCT based on a client-risk reduction model (5). The aim of the programme was to train a large number of counsellors in low resource settings and provide VCT services to STI and antenatal clinic (ANC) attendees (6).

The first VCT training programme was conducted in 2002 in two 5-day training courses at the Comprehensive Health Centre in Kingston. During the course, the participants observed and practised skills in counselling and did role-plays. The participants included healthcare providers, STI contact investigators, representatives from NGOs, people living with HIV/AIDS (PLWHAs), behaviour change specialists and mental health counsellors. This supported the efforts of the MOH to make VCT available throughout the island especially at STI and antenatal clinics, to refer HIV-positive clients for care and support and to reduce mother-to-child transmission (MTCT) of HIV/AIDS (6). A JHPEIGO report of August 2003 stated that the counselling programme in Jamaica "exceeded its goal of developing a network of more than 300 VCT service providers and 16 qualified trainers". Voluntary Counselling and Testing providers are now available islandwide and trainers are available in the Regional Health Authorities [RHAs] (7).

Voluntary Counselling and Testing has been integrated into the Kingston Perinatal/Paediatric HIV/AIDS (KPAIDS) Programme which started in Jamaica in 2002 in an effort to reduce and eventually prevent mother-to-child transmission (pMTCT) of HIV/AIDS in the greater Kingston region and eventually Jamaica and improve the quality of life of women and children infected with HIV/AIDS (8). It is a collaborative effort between the University of the West Indies (UWI), MOH and the University of Maryland. It is funded by the Elizabeth Glaser Paediatric AIDS Foundation, the Pfizer Foundation, UWI and the MOH. Five nurses (4 research nurses and 1 nurse coordinator) were trained in pMTCT and the management of HIV, VCT, HIV/AIDS and paediatric/ perinatal HIV/AIDS in the KPAIDS Programme. Their VCT training was done through the MOH/JHPEIGO workshops. There were three obstetric sites: the University Hospital of the West Indies (UHWI), Victoria Jubilee Hospital (VJH) and Spanish Town Hospital (STH) and four paediatric sites: UHWI, STH, Bustamante Hospital for Children (BHC) and the Comprehensive Health Centre (CHC). These sites participate in the management of hundreds of HIV-positive women and their exposed children with HIV/AIDS. Each site is managed by a research nurse and the KPAIDS initiatives are supervised by the nurse coordinator (9).

Voluntary Counselling and Testing was designed for individual as well as group education. It facilitates same day results through Rapid Testing *versus* delayed results. It involves a pre-test counselling session which includes discussion of risk assessment and reduction to ensure that there is a clear understanding of the meaning of the implications of

the HIV test. The HIV test is done followed by post-test counselling, regardless of the HIV test result. There are several models of VCT in operation in various parts of the world (10). The model used in the KPAIDS programme is Group education, opt-out individual testing, individual post-test counselling for seropositives and informing seronegatives of their negative status. Clinic attendees can opt out. There was little or no post-test or preventative counselling for seronegatives while seropositives receive on-going counselling (10).

At the end of a group information session, a woman who presented for care at an antenatal clinic in the Kingston Metropolitan Region is expected to be knowledgeable about the following: two main methods of HIV transmission, one way to decrease their risk of HIV infection, one way to prevent HIV transmission to their babies, information about the HIV-testing process, interventions available for HIV-positive pregnant women and how to make an informed decision on whether or not to get tested (4).

Following a serological test performed by HIV ELISA or Determine Rapid Test, a woman is informed of her result in a confidential setting. A negative result allows her to take steps to avoid infection in the future. It also allows her to breastfeed knowing that this is the best option for her child (11). Those with positive results are advised about existing interventions and are assisted with decision-making about their own lifestyle, nutrition and healthcare (10, 11). Their counselling is on-going. The women are referred to high risk clinics at one of the participating centres for further antenatal care.

The aim of this paper is to evaluate the efficacy of the VCT intervention and client understanding of the components of VCT in the KPAIDS Programme.

SUBJECTS AND METHOD

The study proposal was submitted and reviewed by the Ethics Committee of the UWI/UHWI and permission granted to conduct a small, informal survey. Convenience sampling was used to select participants. A semi-structured questionnaire was used to conduct face-to-face interviews with consenting postpartum women in the immediate postpartum period and up to one year postnatal. The interviews were performed between August 15 to 26, 2005 by the research nurses on the postnatal wards and clinics at the three obstetric sites. Questions were asked concerning patient satisfaction with the counselling process, knowledge about pre-exposure prophylaxis, post-exposure prophylaxis, formula feeding, MTCT, condom usage and breastfeeding. Forty-eight women participated, 28 of whom were HIV-infected and 20 who were HIV-negative. The results were manually collated and analyzed.

RESULTS

Examination of the sociodemographic factors of the women interviewed showed that the age range of the majority of the participants (19 or 39.6%) was between 20–24 years. They were mostly single and in visiting relationships (26 or 51.2%) and the majority had completed high school (31 or 64.6%) which is similar to the overall population.

An analysis of the responses to the questionnaire showed that approximately 75% or 36 women interviewed were offered VCT and agreed to be tested. Of the 20 women who were HIV-negative, 85% or 17 agreed to be tested while 68% or 19 of the HIV-positive women agreed to be tested (Fig. 1). Approximately 71% (34) of women overall accepted post-test counselling with a higher percentage in HIV-positive women (93% or 26 women) *vs* HIV-negative women [40% or 8 women] (Fig. 1). Patient satisfaction with the process approached 77% overall, with no difference in HIV-positive *versus* HIV-negative women (Fig. 1). Satisfaction was assessed by asking the women if they were satisfied that they had received enough information to help them decide if they should get tested. The majority of women had a good knowledge of HIV and the interventions offered for pMTCT such as pre-exposure prophylaxis (zidovudine antenatally), condom usage and formula feeding (Fig. 2). Almost 90% of women who were HIV-positive and 83% of women who

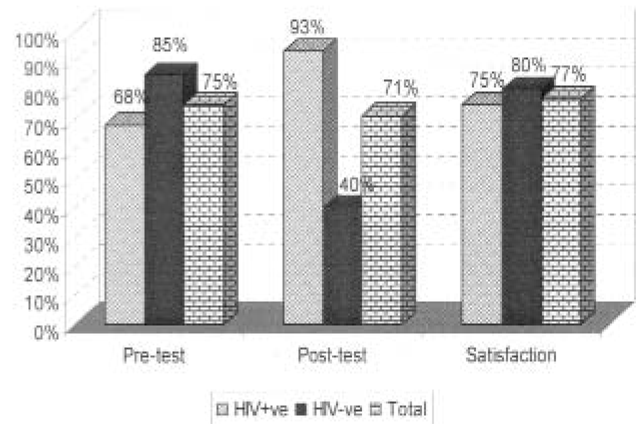

Fig. 1: Counselling.

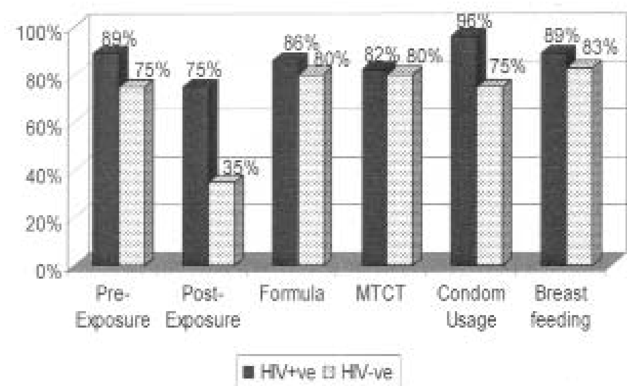

Fig. 2: Knowledge gained of pMTCT.

were HIV-negative were aware that breastfeeding increased the risk of the infant becoming infected (MTCT, Fig. 3). Knowledge about post-exposure prophylaxis (infant zidovudine) was higher in HIV-positive women (75%) as compared to HIV-negative women [35%] (Fig. 2). Over the two-year period (September 2002 to September 2004), improvements were noted in the uptake of VCT and also in HIV testing. There were also improvements in the number of women who had chemoprophylaxis [Table 1] (8).

Table: HIV Seroprevalence and uptake of interventions in the KPAIDS programme Year 1 (Sept 2002 to Sept 2003) and Year 2 (Oct 2003 to Sept 2004)

Characteristics	Year 1	Year 2
Total number of women seen in ANC	14 054	12 951
Total number of women who participated in counselling/group education	5558	11 747
Percentage of women who participated in counselling/ Group education	39.5%	90%
Number of women who accepted testing	7383	12 352
Percentage of women who accepted testing	52.5%	95%
Number of women testing HIV-positive	152	197
Percentage of women testing HIV-positive	1%	1.5%
Number of women receiving MTCT prophylaxis	90	143
Percentage of women receiving MTCT prophylaxis	59.2%	72%

DISCUSSION

This study showed a high level of acceptance and uptake of voluntary counselling using the opt-out strategy. This is demonstrated in Fig. 1 which shows a 75% acceptance of pre-test counselling and is further borne out by the actual results shown in Table 1. This compares favourably with results obtained in the USA (12). Similarly, women in Nigeria were willing to undergo HIV counselling and testing in pregnancy especially if it would assist in preventing MTCT to their babies (13, 14). However, uptake of HIV counselling was < 57% in clinics in Botswana (15). There was a high patient satisfaction level (77%) and retention of knowledge gained to prevent MTCT of HIV in our study (Fig. 2). Women also retained a high knowledge base in methods of pre-exposure and post-exposure prophylaxis to prevent mother to child HIV transmission (Fig. 2).

Although the study showed that there was a high retention of knowledge, it is limited by the fact that information regarding the length of time between counselling and interview is not available. Information on their psychological state at the time of diagnosis is also unavailable. Both these factors would have a bearing on their ability of recall and therefore are limitations to the study.

Successes: Voluntary counselling and testing in the KPAIDS Programme has experienced many successes. Under the guidance of well-trained nurse-counsellors, HIV-positive clients have been helped to assess their risk behaviours and make appropriate lifestyle changes. Expansion of the VCT programme by the Ministry of Health and the Caribbean HIV/AIDS Regional Training Network has assisted the identification of more HIV-infected pregnant women, provided education and increased the uptake and adherence to care for themselves and their infants. Over the two-year period (September 2002 to September 2004), improvements were noted in the uptake of VCT and also in HIV-testing as well as, significant improvements in the proportion of women who had antiretroviral chemoprophylaxis [Table 1] (8). Discussions with Nurses in the KPAIDS Programme and the Maternal and Child Health Centres participating in the programme revealed that there was the perception that there had been a reduction in the stigma associated with HIV which may be partly due to the normalization of VCT within the maternal and childcare services. This reduction in stigma was greatly enhanced by good nurse-patient relationships which empowered these women to seek to improve their knowledge base.

Challenges: Interviews with the Nurses in the Maternal and Child Health Services of sites participating in the KPAIDS Programme as well as the KPAIDS nurse-counsellors highlighted several major challenges. These include the lack of quality control in the counselling process making it difficult to assess the content of the counselling and the satisfaction of both the counsellors and clients. Counselling and testing were offered as a part of the Maternal and Child Health services and this was labour-intensive and time-consuming. In resource-limited settings, there were time constraints, staff shortages and lack of funds for training which negatively impacted on the quality of counselling. Increased workload can cause emotional and physical strain on the staff and precipitate the "burnout" phenomenon. Hence, there was a need for regular support/debriefing sessions. Missed opportunities for pMTCT intervention occurred when unbooked women present for the first time in labour. Improved access to rapid tests would optimize the use of antiretroviral interventions in seropositive women. However, the quality of counselling could be compromised in these situations. Disclosure issues were fueled by a variety of reasons including fear of discrimination, rejection and violence. In some cases these fears were justified. Also, there was the inability to negotiate condom use and behaviour change in the partners of these women. This contributed to risk behaviours in some women and repeated pregnancies. Privacy and confidentiality were important during counselling sessions especially for the HIV-positive pregnant women. In some instances, lack of physical space, especially in the clinic setting, presented a major challenge. Post-test counselling needed to be better incorporated in the management of HIV-negative pregnant women as this could help them to reduce their risk of becoming infected. The study showed that only 40% of women received post-test counselling (Fig. 1) and only 35% knew what post-exposure prophylaxis was (Fig. 2).

CONCLUSION

In spite of the challenges faced, Voluntary Counselling and Testing has proven to be an important intervention that enables an improvement in the awareness, prevention and control of HIV infection in pregnant Jamaican women. Nurses who are appropriately trained can play a pivotal role in the successful provision of VCT services. Couples counselling and counselling and testing in the labour wards for women who present late in pregnancy need to be explored. There needs to be an increase in the knowledge, acceptability and adoption of VCT. As in Botswana (16), nurses were the backbone of the VCT services provided by the KPAIDS Programme and they need to have ongoing training and support (9).

REFERENCES

1. Ministry of Health, Jamaica. National HIV/STI Programme Fact Sheet. Jamaica AIDS Report. Ministry of Health. January – December 2002. Available at: *http://www.jamaica-nap.org*
2. Ministry of Health, Jamaica. National HIV/STI Prevention Control Programme. Facts and Figures. HIV/AIDS Epidemic Update 2004. Minis-try of Health. Available at: *http://www.jamaica-nap.org*
3. Christie C, Bain B, Pierre R, Smikle M, Evans-Gilbert T, Frederick J et al. HIV/AIDS in Women, Infants and Adolescents in Jamaica: A further call to action. West Indian Med J 2001; **50:** 258–62.
4. Brothers J, Stratten K, Anderson J. Editors. Voluntary Counseling and Testing Manual. Counseling Reference Manual. JHIEGO Corporation, an affiliate of Johns Hopkins University. September 2002.
5. Training in Reproductive Health. January 31, 2002. Installment #18 HIV Voluntary Counseling and Testing Needs Assessment conducted in Jamaica. JHPIEGO Corporation, an affiliate of Johns Hopkins University. Available at: *http://www.jhpiego.org/trh/direct/2002/trh 0102. htm*. Accessed January 10, 2005.
6. JHPIEGO TrainerNews. JHPIEGO Develops and Pilot Tests VCT Learning Package (August 2002). JHPIEGO Corporation, an affiliate of Johns Hopkins University. Available at: *http://www.reproline.jhu.edu/english/6read/ 6issues/6jtn/v5/tn0207vct.htm*
7. JHPIEGO TrainerNews. VCT Program in Caribbean Exceeds Target in Building Network of Trainers (August 2003). JHPIEGO Corporation, an affiliate of Johns Hopkins University. Available at: *http://reproline.jhu.edu/english/6read/ 6issues/6jtn/v6/tn0305vct.htm.*
8. Christie CD. A Paediatric and Perinatal HIV/AIDS Leadership Initiative in Kingston, Jamaica. West Indian Med J 2004: **53:** 283–92.
9. Palmer PM, Anderson-Allen MM, Billings CC, Moore JT, McDonald Kerr C, Steel-Duncan J et al. Nursing interventions in the Kingston Paediatric and Perinatal HIV/AIDS Programme in Jamaica. West Indian Med J 2004; **53:** 327–31.
10. Cahn P, O'Malley J, Dhaliwal M, Nguyen VH, Zala C. UNAIDS: Managing care: lessons from practice. Available at: *http://home.tiscali.nl/~xp115801 /my_project/VCT_details.htm*
11. UNAIDS. Counselling and voluntary HIV testing for pregnant women in high prevalence countries – Elements and issues. UNAIDS/01.70E (English original, October 1999). ISBN 92-9173-128-5. 1st revised reprint, November 2001. Available at: *http://www. unaids.org.*
12. Schuman C, Jones TB, Ohmit S, Marbury C, Laken MP. Voluntary couselling and testing of pregnant women – an assessment of compliance with Michigan public health statures. Med Gen Med 2004; **6:** 52–6.
13. Ekanem EE, Gbadegesin A. Voluntary counselling and testing (VCT) for human immunodeficiency virus: a study of acceptability by Nigerian women attending antenatal clinics. Afr J Reprod Health 2004; **8:** 91–100.
14. Iliyasu Z, Kabir M, Galadanci HS, Abubakar IS, Aliyu MH. Awareness and attitude of antenatal clients towards HIV voluntary counselling and testing in Aminu Kano Teaching Hospital, Kano, Nigeria. Niger J Med 2005; **14:** 27–32.
15. Rakgoasi SD. HIV Counselling and testing in pregnant women attending antenatal clinics in Botswana, 2001. J Health Popul Nutri 2005; **23:** 58–65.
16. Raisler J, Cohn J. Mothers, midwives and HIV/AIDS in sub-Saharan Africa. J Midwifery Women's Health 2005; **50:** 275–82.