# *Umbanda* healers as effective AIDS educators: case–control study in Brazilian urban slums (*favelas*)

Marilyn K Nations PhD[1,2,3]
Maria Auxiliadora de Souza MD PhD[2,3]

[1]*Department of Social Medicine, University of Harvard Medical School, Boston, USA,* [2]*Department of Community Medicine, Federal University of Ceará, Fortaleza, CE, Brazil and* [3]*Instituto Conceitos Culturais & Medicina (ICC&M), Fortaleza, Ceará, Brazil*

TROPICAL DOCTOR, 1997, **27** (suppl 1), 60–66

SUMMARY

During a 12-month period (November 1994–October 1995), Afro-Brazilian *Umbanda* healers (*Pais-de-Santo*) taught 126 fellow healers from 51 *Umbanda* centres (*terreiros*) located in seven overcrowded slums (*favelas*) (population 104 343) in Brazil's northeast, the biomedical prevention of AIDS, including safe sex practices, avoidance of ritual blood behaviours and sterilization of cutting instruments. A face-to-face educational intervention by healers, marginalized in society yet respected by devotees, which blended traditional healing – its language, codes, symbols and images – and scientific medicine and addressed social injustices and discrimination was utilized in this project supported by the Brazilian Ministry of Health, National Program in STDs/AIDS.

Significant increases ($P<0.001$) in AIDS awareness, knowledge about risky HIV behaviour, information about correct condom use, and acceptance of lower-risk, alternative ritual blood practices and decreases ($P<0.001$) in prejudicial attitudes related to HIV transmission were found among mobilized healers as compared to 100 untrained controls. Respected Afro-Brazilian *Pais-de-Santo* can be creative and effective partners in national HIV prevention programmes when they are equipped with biomedical information about AIDS.

## INTRODUCTION

HIV infections have exploded into a full-fledged epidemic in tropical Brazil since 1980, when the first AIDS case was officially reported. Since 25 February 1995, 62 314 persons have been diagnosed with AIDS with an alarming increase in incidence from 4.3/100 000 inhabitants between 1980–87 to 117.8/100 000 in 1994–95. Until 1995, HIV infection was concentrated (77.3%) in the industrial southeast, particularly São Paulo (32.1%), but a new trend is emerging: the 'Africanization' of AIDS[2]. HIV infection is spreading aggressively northeast, attacking the poor, malnourished, least educated and most discriminated (women); nearly 50% of AIDS cases diagnosed in 1994 were among persons with low-literacy[3]. In Ceará, the state with the most impoverished families in Brazil[4], AIDS has increased steadily since 1983–85, when only 5 cases were identified. In 12 years, diagnosed HIV cases have increased from 5 to 1046[5], with heterosexual transmission rising from 6.7% in 1983–86 to 42.8% in 1992. The ratio of male to female AIDS cases decreased drastically from 62:1 in 1989 to only 3:1 in 1995, as more women have become infected[6].

Despite increasing HIV incidence, control measures have had limited impact on the hardest hit, least prepared, and poorest communities in northeast Brazil. Access to biomedicine is blocked by high costs, bureaucratic barriers, class and communication differences. Confronting similar constraints in Africa, government leaders in Swaziland[7] and Mozambique[8] enlisted traditional healers in STDs/HIV infection control efforts. In northeast Brazil this strategy is also justified: *Umbanda*, an ancient Afro-Brazilian religion which blends west African (Yoruba, Bantu and Dahomean), indigenous Tupi-Guarani and European (Portuguese, Dutch and French) traditions, is 'a weapon of the weak'[9] which powerless Brazilians use to combat human injustices – slavery, forced labour and structural violence – inflicted by dominant colonial powers, past and present. Introduced into Brazil during the early 1500s by Africans forced into slavery, *Umbanda* absorbed local traditions to become a collective, dissident voice hidden, until today, from slave masters and authorities, behind normative Catholic imagery[10]. Because inequity and structural violence persist in Brazil, the modern poor and excluded identify easily with *Umbanda*: an estimated 4000–5000 *terreiros* exist in Fortaleza alone. *Umbanda*, albeit largely clandestine, is an organized religion with formal community-based associations, providing an efficient infrastructure through which to deliver AIDS interventions. Amorous and sexual problems – conjugal discord, extramarital affairs, 'heartbreak', beatings, rapes, disillusion, abandonment, sexual problems, unplanned pregnancy, impotence, infertility, and STDs – are taken by the poor to *Umbanda* healers. Spiritual entities include 'the street people' – mischievous street kids, seductive prostitutes, drug-wise gigolos who know firsthand the hard surfaces of life in poverty. *Pomba-Gira*, goddess of seduction, understands love, passion, sexual jealousy and STDs; she ritually binds adulterous mates together. *Umbanda* defines gender ambiguously; men are possessed by female spirits and women receive and are empowered by masculine entities. Such ambiguity fosters tolerance and acceptance of persons – bisexuals, homosexuals, lesbians, transvestites,

Correspondence to: Marilyn K Nations, Instituto Conceitos Culturais & Medicina (ICC&M), Av. Santos Dumont 1740/sala 1214 Fortaleza, Ceará, Brazil 60.150–160

etc. – considered 'sexually deviant' in the conservative, male-oriented northeast[11]. Healing of the sick and suffering by Indian (*caboclos*) and 'old African slave' (*os Pretos Velhos*) spirits is central in *Umbanda*. Finally, direct contact with human blood, potentially HIV+, occurs during at least 4 rituals: (1) the 'cutting ritual' (*ritual de corte*), a group initiation rite in which seven incisions are cut into the medium's body to open channels for the entry of the *Exu's* (devil's) malevolent powers; (2) the *sede de sangue* or 'thirst for blood' ritual in which angry *Exu* spirits cut mediums' bodies then drink their blood as punishment for neglecting to make blood offerings; (3) 'sucking cures' in which healers 'dissolve hexes' (*desmanchar a demanda*), withdrawing the intruded, illness-provoking *flechadas* – arrows – by sucking them out of festered, bleeding sores; and (4) 'love packs' (*amarrações*) admirers are sealed for eternity by cutting their veins and mixing bloods.

## METHODS

### *Setting*

This study was conducted in Fortaleza (population, 2 million), a rapidly growing and modernized capital city in Brazil's northeastern state of Ceará. The gross internal product of Ceará rose by an astounding 50% in the last 8 years, by far the highest in the country. Yet, Fortaleza is a city of contrasts, of the privileged few who live comfortably in the town's centre, and the impoverished masses who crowd into some 420 *favelas*. Economic disparity between have and have-nots is among the world's greatest[12]; 70% of salaries in the northeast are earned by 10% of the people[13]. While Fortaleza imported the second most cars in 1994, behind São Paulo, 74% of households have no piped-in water, 56% lack sanitary facilities, 24% of women aged 15–49 are malnourished and 59% have 1 year or less of formal education[14].

### *Sample selection*

Comparative case and control areas were selected based on seven criteria: (1) contiguous, poor neighbourhoods located on Fortaleza'a periphery; (2) estimated population of 75 000–100 000; (3) similar living and cultural conditions; (4) similar distance from downtown in opposite directions; (5) known existence of large numbers of *terreiros*; (6) presence of accessible *Umbanda* leaders; and (7) no previous AIDS prevention project. Authorities of The Cearense Spirit Union of *Umbanda* were solicited to demarcate two areas meeting these criteria on a city map, randomly selecting one for intervention. Selected intervention neighbourhoods included Aerolândia (population 11 481), Alto da Balança (population 14 649), Cidade dos Funcionários (population 14 491), Dias Macedo (population 8840), Jardim das Oliveiras (population 22 780), Parque Iracema/Manibura (population 3102), Trancredo Neves (population 10 000) with a total population of 104 343 in 22 486 households. Selected control neighbourhoods were Bom Jardim (population 15 832), Bom Sucesso (population 29 176), Conjunto Ceará (population 45 177), Granja Lisboa (population 32 976), Granja Portugal (population 48 881) with a total population of 172 042 in 37 133 households. Randomized sorting of case and control healers was discarded since no accurate registry existed and intensive contacts between healers during frequent festivals threatened to contaminate study results. In each area, identified *Umbanda* leaders, with our technical team (researchers, *Pais-de-Santo*, commercial sex workers, and university social science students), canvassed demarcated areas to identify all *terreiros* and healers. Outdated registries directed our search, but word-of-mouth notification proved more accurate. In the intervention areas, 222 *terreiros* were identified; 245 in the control area. Of these, 81 intervention and 115 control *terreiros* were located; 79 and 97 enrolled, respectively, and in both areas, 51 participated. Excluded were *terreiros* trained in AIDS, practising *Condomblé* (Afro-Brazilian religion of common origin), unavailable, or refusing to participate. Table 1 compares demographic characteristics of 126 participating case and 100 control healers. Intervention healers' average age is 39.8 years; 62.4% are heterosexual females. Most (34.4%) are married; 23.7% never married and 21.5% live in informal unions. Heterosexual and bisexual/homosexual males account for 25.8% and 11.0%, respectively. Seventy-one per cent are sexually active. They have on average 39.8 years of *Umbanda* experience, but only 3.2 years of formal schooling. While only 11.8% have secure jobs with government social and health benefits, 92.5% are registered in *Umbanda* associations. Control healers are similar ($P > 0.05$).

## PROJECT IMPACT

The impact of the project was assessed within 3 weeks after terminating training, using a 187-item, orally-administered questionnaire about AIDS awareness, knowledge, transmission, risk behaviours and preventive strategies. Differences were identifed between pre and post training responses of 126 mobilized and 100 control healers. A random sample of 20% of devotees in each *terreiro* in case and control areas was selected to test the adequacy of knowledge transfer from healers to devotees (results presented elsewhere). Frequencies and Chi-square analysis of differences between groups were calculated using EPINFO 5 computer program. Qualitative, open-ended questions were tape-recorded, transcribed, and computer-processed using The Ethnograph 4.0 program.

## EDUCATIONAL INTERVENTION

A multidisciplinary technical team of four – physician, medical anthropologist, AIDS specialist and educator – trained 14 laypersons – seven *Pais-de-Santo*, four commercial sex workers, three university students – as

**Table 1. Comparison of demographic characteristics of *Pais-de-Santo* in intervention and control areas (Fortaleza, Ceará, Brazil, 1995)**

| *Characteristic* | *Intervention (n = 126)* | *Control (n = 100)* | P *value* |
|---|---|---|---|
| Age (mean/year) | 39.8 | 42.5 | >0.05 |
| Sex (%) | | | |
| Female | 62.4 | 62.9 | >0.05 |
| Male | 37.6 | 37.1 | >0.05 |
| Marital status (%) | | | |
| Single, never married | 23.7 | 24.7 | >0.05 |
| Married | 34.4 | 38.2 | >0.05 |
| Informal union | 21.5 | 25.7 | >0.05 |
| Divorced | 5.4 | 1.1 | >0.05 |
| Separated | 8.6 | 7.9 | >0.05 |
| Widowed | | | |
| Sexual orientation (reported) (%) | | | |
| Heterosexual male | 25.8 | 20.2 | >0.05 |
| Heterosexual female | 62.4 | 62.0 | >0.05 |
| Bisexual | 2.2 | 7.9 | >0.05 |
| Homosexual | 9.7 | 9.0 | >0.05 |
| Sexually active (%) | 71.0 | 68.5 | >0.05 |
| Experience in *Umbanda* (mean/year) | 39.8 | 42.5 | >0.05 |
| Formal education (mean/year) | 3.2 | 3.1 | >0.05 |
| Employed in secure job with required government social/health benefits (%) | 11.8 | 10.1 | >0.05 |
| Registered in *Umbanda* association (%) | 92.5 | 93.3 | >0.05 |

popular mobilizers in AIDS prevention during 164 hours (5 seminars totalling 24 hours and 35 weekly, 4-hour meetings) over 10 months. Sessions were held in *terreiros*, at nights and on weekends. Locally-available, low cost resources and teaching materials were used. The technical team and healers identified four blood rituals presenting HIV-risk and selected substitute, lower-risk practices to introduce: (1) using new or sterilized blades for 'cutting ritual'; (2) offering animal blood to the *Exus* to quench their 'thirst' for human blood; (3) 'dissolving hexes' with tobacco smoke, prayer and mental powers instead of sucking wounds; and (4) binding cloth doll lovers together with honey and ribbon instead of mixing blood in 'love packs'. A popular artist translated these and additional eight biomedical AIDS prevention messages into *12 Energy Currents of Defense Against AIDS*, using *Umbanda* songs and locally-adapted graphic illustrations. Messages about social inequity and discrimination, sterilization, and condom use were included. During 52 sessions, popular AIDS mobilizers passed information to 126 case healers during three sessions of 3 hours each. A participative methodology was used, including group dynamics, discussions, exchanges of experiences, and practical demonstrations of condom use and sterilization of cutting instruments and syringes. Trained *Pais-de-Santo* then passed newly acquired information to 956 devotees. A culturally-specific logomark for condoms (*Protetor São Jorge* and *Protetor Pomba-Gira*) and water-based lubricant (*Enchanted: Iara, Queen of the Waters*) was developed, and 40 000 condoms and 15 000 bottles distributed free of charge in the intervention area. Fifty-seven per cent of case healers watched a 20-min AIDS prevention video, *Open Roads and Close the Body Against AIDS* produced especially for *Umbanda* devotees. A referral system between *terreiros* and state infectious diseases hospital was established. For ethical reasons, control healers were trained after evaluation during 156 hours (52, 3-hour sessions). They passed messages to 1788 devotees.

## RESULTS

Pre-intervention results verify that most (96.8%) *Pais-de Santo* know of AIDS from television (54.8%), friends (29%), radio (14%), lectures (12.9%), school (7.5%), government health posts (6.5%), newspapers (6.5%), family (4.3%), and other AIDS training programmes (3.2%). Only 3.2% had been informed in *terreiros*. While 44.1% considered themselves well informed, none (0%) defined AIDS or its aetiology using correct, biomedical explanations. Only (6.5%) knew scientific prevention methods. Folk terminology and concepts were used to define AIDS (61.3%), its aetiology (41.9%) and prevention methods (28%). Risk of contamination by transfusion of HIV-tainted serum (98.9%), needle-sharing (98.9%) or ritual union of human blood during 'love packs' (91.4%) is widely known.

**High HIV-risk sucking cure ritual** **Alternate lower-risk cure**

*Figure 1.* Umbanda *healers identified high HIV-risk blood rituals and suggested alternative, lower-risk practices. A popular artist illustrated behaviours for easier comprehension by devotees with low-literacy*

Contact with sperm or vaginal secretions during oral sex with HIV+ men (90.3%) or women (86%) is also known to transmit HIV, as is fetal contamination during pregnancy and birth (87.1%). Unprotected sex is known (87.1%) to transmit HIV, but perceived risk falls sharply when practised with steady lovers (35.5%), husbands/wives/fixed mates (37.6%) or 'clean' appearing 'upstanding' partners (38.7%.) Healers believe erroneously that protected anal sex (35.5%), protected vaginal sex with prostitutes (45.2%) or casual contact with HIV+ persons when embracing (39.8%), or sharing a pipe (62.4%), bathroom (61.3%), cup (46.2%), house (44.1%) transmits AIDS. Most (62.1%) sexually-active *Pais-de-Santo* have never used a condom; only 21.2% use it 'sometimes' and 16.7% 'always'. Condom utilization rates fall sharply for use during the previous 12 months (31.8%), last anal (24.2%) or oral (12.1%) intercourse. Only 4.5% of healers possessed a condom. Only 3.2% learned condom use from someone, usually a friend, at a *terreiro*. Ritually 'closing the body' is believed by 24.7% to protect against HIV, obviating the need for condoms. Performance of the 'cutting ritual', 'thirst for blood', 'sucking cures', and 'love packs' is considered of 'greatest importance' to *Umbanda* according to 65.5%, 54.8%, 43%, and 30.1% of healers, respectively. No healer (0%), however, knew the medically-endorsed bleach recipe to disinfect cutting instruments, but 70% used popular recipes, such as soaking blades in herbal solutions or burning in alcohol or *cachaça*, a potent sugar-cane liquor. Over half (51.6%) believe *Pais-de-Santo* can cure STDs and AIDS (19.4%); 38.7% believe doctors can cure HIV infections. The majority (84.9%) believe *Pais-de-Santo* can collaborate with doctors to combat AIDS and 9.4% have referred devotees, suspected to have HIV, to health professionals. Nearly 40% of healers know an *Umbanda* devotee who has died of AIDS.

Healers' attitudes, beliefs and practices changed significantly ($P<0.001$, as compared to controls) after training (Table 2). Significant increases occurred in the percentage of healers who attribute their primary source of AIDS information to the AIDS and *Umbanda* project (100% *increase), consider themselves 'well informed' (41.4%*) or 'informed' (40.4%*) about the topic, or cite correct biomedical causes of AIDS (19.3%*). Highly significant increases ($P<0.001$) occurred in healers who

**Table 2. Changes in attitudes, beliefs and practices of 126 *Umbanda* healers after AIDS educational intervention compared to 100 control healers (Fortaleza, Ceará, Brazil, 1995)**

| *Significant increase (P<0.001)* | *(% increase)* |
|---|---|
| Cite AIDS and *Umbanda* project as primary source of AIDS information | 100.0 |
| Learned correctly condom use from someone in a *terreiro* | 96.8 |
| Know how to correctly disinfect a syringe with blood | 71.8 |
| Know correct recipe to disinfect a razor blade/knife | 63.9 |
| Know to use pre-lubricated condoms | 53.0 |
| Know to use condoms without oily lubricants | 48.6 |
| Consider 'well informed' about AIDS | 41.4 |
| Consider 'informed' about AIDS | 40.4 |
| Know to remove trapped air before unrolling condom | 39.5 |
| Possess a condom | 28.3 |
| Possess AIDS and *Umbanda* Project condom | 28.3 |
| Know to put on condom when penis is erect | 25.4 |
| Disapprove performing 'cutting ritual' with unsterilized blades | 25.0 |
| Believe performing 'cutting ritual' with sterilized blades does not alter ritual's mystical power | 23.7 |
| Know not to spill sperm when removing condom | 22.9 |
| Report AIDS and *Umbanda* condom use at least once | 22.1 |
| Believe 'love pack' with cloth dolls, ribbons and honey has same mystical effect as cuts and blood exchange | 22.0 |
| Know to unroll condom to base of penis when applying | 19.3 |
| Cite correct biomedical causes of AIDS | 18.9 |
| Know to use a condom only once | 17.4 |
| Report non-project brand condom use at least once | 10.5 |
| *Significant decline (P<0.001)* | *(% decrease)* |
| Believe AIDS transmitted using bathroom of HIV+person | 44.4 |
| Believe AIDS transmitted smoking pipe of HIV+person | 43.1 |
| Believe 'sucking cures' of great importance to *Umbanda* | 28.5 |
| Persuaded by partner that unprotected sex is more enjoyable than using condom | 28.4 |
| Believe AIDS is transmitted during protected sex with prostitutes | 28.3 |
| Believe AIDS is transmitted drinking from cup of HIV+person | 28.1 |
| Believe AIDS is transmitted embracing HIV+person | 28.0 |
| Define AIDS using popular terminology | 27.8 |
| Agree to engage in unprotected sex with partner who refuses to use condom | 21.6 |
| Cite exclusively popular methods to prevent AIDS | 20.8 |
| Believe *Umbanda* healers can cure 'illness of the world' (STDs) | 16.7 |
| Believe AIDS transmitted living in the same house with HIV+person | 15.7 |
| *No significant change (P>0.05)* | |
| Informed about AIDS on television, radio, from friends or family, at lectures, school government health posts, or other training | |
| Believe AIDS transmitted during unprotected sex with steady lovers | |
| Believe AIDS transmitted during unprotected sex with husbands/wives/fixed partners | |
| Report always use a condom | |
| Report occasional condom use | |
| Report condom use in the previous 12 months | |
| Report never have used a condom | |
| Believe 'cutting ritual' is of great importance for *Umbanda* | |
| Believe 'thirst for blood' ritual of great importance for *Umbanda* | |
| Exposed to video *Open Roads and Close Your Body Against AIDS* | |
| Believe *Umbanda* healers can collaborate with doctors on AIDS prevention | |

learned at a *terreiro* (96.8%*) correct use of pre-lubricated condoms (53.0%*), without oil (48.6%*), put-on erect penis (25.4%*), but removing trapped air (39.5%*) before unrolling to the base (21.0%*), removing cautiously to avoid spilling sperm (22.9%*) and disposing without re-use (18.9%*). Healers possessing the AIDS and *Umbanda* project condom (28.3%*) and using it (22.1%*) or another brand (10.5%*) at least once, increased significantly ($P<0.001$). Healers who believed that the introduction of lower HIV-risk

behaviours (e.g. sterilizing blades for the 'cutting ritual' or performing 'love packs' with cloth dolls, honey and ribbons) will not alter the ritual's mystical effect, increased 23.7% and 22.0%, respectively. Healers who knew how to correctly disinfect a blood-stained syringe or razor blade/knife also increased significantly (71.8%* and 63.9%*, respectively), as did those disapproving use of unsterilized blades for the 'cutting ritual' (25.0%). Referral of devotees suspected of AIDS to doctors increased nearly 26% from 9.4% to 35.3% ($P<0.03$) after mobilization.

Highly significant decreases ($P<0.001$) (Table 2) occurred in healers who use exclusively popular terminology to define AIDS (27.6% decrease**), cite only popular prevention methods (20.8%**) and believe healers can cure 'illnesses of the world' or STDs (16.7%**). Their erroneous belief that AIDS is transmitted during casual contact with HIV + persons while embracing (27.8%**), or sharing bathrooms (44.4%**), pipes (43.1%**), cups (28.1%**), and houses (15.7%**), or during protected sex with prostitutes (28.3%**) also decreased significantly ($P<0.001$), as did those agreeing with partners that unprotected sex is more enjoyable (28.4%**), or consenting to its practice (21.6%**). Belief that high HIV-risk 'sucking cures' are of 'greatest importance' to *Umbanda* or that the 'cutting ritual' should be performed without sterilizing blades declined 28.5% and 28.0%, respectively ($P<0.001$).

No significant change occurred ($P>0.05$) in the sources of AIDS information – television, friends, radio, lectures, school meetings, health post, newspaper, family, or other training – during the project period. No change was found in healers who believe AIDS is transmitted during unprotected sex with steady lovers or husbands/wives/fixed partners. No difference occurred in healers who 'always', 'sometimes', 'during the previous 12 months' or 'never' used condoms. The importance of the 'cutting' and 'thirst for blood' ritual remained unchanged. No significant change occurred among healers exposed to the video *Open Roads and Close Your Body Against AIDS*. Widespread approval (84.9%) of the collaboration of healers and physicians to control AIDS, rose to 94%; the increase, however, was not statistically significant.

## DISCUSSION

*Umbanda* healers are marginalized from Cearense society, excluded from secure jobs, health services and schools. Healers' low literacy places them at growing HIV-risk in Ceará because written AIDS warnings are incomprehensible. While most *Pais-de-Santo* have heard of AIDS, especially on television, none could recall its biomedical definition or aetiology and less than 10%, knew prevention methods. Normal information channels, including health posts and schools, do not reach this population. That *Pais-de-Santo* identified blood and perinatal HIV transmission routes, may be due more to their congruence with folk disease aetiologies than to an understanding of modern virology. Fright (*susto*) experienced by pregnant women, for instance, is 'imprinted' on foetuses and *reima*-polluting blood passes in mothers' breast milk to nursing infants. Belief in HIV transmission through casual contact with HIV + persons or protected sexual intercourse with prostitutes is based more on prejudicial attitudes and social stereotypes than on knowledge of the biology of infection. The extremely low rates of pre-intervention condom knowledge and use confirm healers' marginal status and blocked access to medical information and services. The popularity of high-HIV risk ritual blood practices and low frequency of scientifically-based sterilization, points to the need for alternative, bloodless rituals and simple, effective sterilization techniques, including popular remedies with proven anti-HIV + activity.

Our results show that *Umbanda* healers can create and implement informal educational interventions which prevent HIV transmission. Because they are aware of their inability to cure all STDs, healers blended popular explanations with scientific definitions and prevention strategies. This shows that popular healing systems are pragmatic and eclectic in northeast Brazil[15]. Healers (and commercial sex worker partners) successfully changed resistant, prejudicial attitudes about HIV transmission through casual contact and sexual intercourse with prostitutes. The instructors were able to address social injustice and discrimination because they too had experienced such attitudes. Enhancement of self-esteem and personal judgment occurred with more participants disagreeing with partners to engage in risky-sex practices. Despite participants' low literacy and unfamiliarity with condoms, and physicians' 'medical mystification' of simple solutions for professional advantage described in this setting[16], healers learned correct condom use when given the opportunity. Practical experience and unselfish professional attitudes appear to be the key to train laypersons in self-care techniques. Increased personal experimentation and possession of condoms, especially *Umbanda*-styled ones, reflects their growing status. Sky-blue, star-studded condom packages with images of *São Jorge*, protector of men, and *Pomba-Gira*, goddess of sensuality, seduce the curious, even dubious. Social marketing of condoms with colourful, sensual, and protective symbols of intended consumers, appears important but the use of condoms remains low and unchanged. We expect rates to improve over time. We were keen to avoid confronting healers or criticizing sacred, high HIV-risk blood rituals, so that health professionals and *Pais-de-Santo* worked together in the search for safer and acceptable alternative practices. We believe that this anthropological approach was critical in changing healers' values and practices. While no epidemiological evidence exists that traditional skin-piercing practices are responsible for HIV transmission[17], the World

Health Organization believes such potential exists and has promoted sterilization 'of needles, syringes, and other skin-piercing practices in medical and other settings'[18] as part of their global prevention strategy. The newly introduced practices were not perceived as altering the mystical power of rituals and so may be adopted more speedily, supporting arguments that technical correctness alone is not sufficient to guarantee acceptance of innovations[19]. We agree that any behavioural change must be integrated into existing cultural contexts and systems of meaning. Face-to-face training with motivated, well-prepared instructors of similar background and the use of practical demonstrations may be as effective in health education with low-literacy populations as video films. If any resistance to future AIDS collaboration among healers and health professionals develops, it is unlikely it will originate on the part of *Pais-de-Santo*; their willingness to cooperate is demonstrated by their nearly 26% increase in HIV physician referrals during the course of this project.

## CONCLUSION

Empowering *Umbanda* healers with essential biomedical AIDS information and prevention techniques, creating easy-to-comprehend pictorial messages, utilizing the existing, low-cost infrastructure and resources, and respecting local healing traditions were factors favouring *Pais-de-Santo* positive impact. In healers' hands, AIDS prevention messages penetrated into hundreds of hidden, backyard *terreiros* in excluded *favelas* on Fortaleza's periphery. These were places the official medical system has failed to reach. Respected within *Umbanda*, *Pais-de-Santo* can be creative and effective partners in national programmes to combat STDs/AIDS in northeastern Brazil, and perhaps other African-influenced regions.

ACKNOWLEDGMENTS

This project counted on the collaboration of many: *Pais-de-Santo*, especially the *Babalorixá* José Alberto Ferreira Nunes (in memory); popular artist José Neves Brandão, student volunteers, Leticia Gutierrez (University of California, Berkeley), Nadja Nara Castelo B Nogueira (University of Manarrhão, Brazil), Rabiatu Abdullah, Renu Edpuganti (University of Harvard Medical School), and Zelle Hill (University of Oxford); ICC&M staff, especially Maria José Feitosa e Castro, Maxwell Castelo Branco and Mário Roberto Martin; and the National Program on STDs/AIDS, Brazilian Ministry of Health, who financed our ideas (BRA/95).

REFERENCES

1 Ministério da Saúde. *AIDS Boletim Epidemiológico*. Brasília, DF: Ministério da Saúde, December 1994–February 1995:14
2 Sousa AQ, Evan TG, Wispelwey B, *et al.* Emerging impact of AIDS in Brazil's northeast. In: Guerrant RL, Souza MA, Nations MK, eds. *At the Edge of Development: Health Crises in a Transitional Society*. Durham, North Carolina: Carolina Academic Press, 1996:263–78
3 Ministério da Saúde. *National Program on STDs/AIDS, Brazil 1994*. Brasília, DF: Ministério da Saúde, 1994
4 Pires de Sousa F. *Pobreza, Desnutrição e Mortalidade Infantil: Condicionantes Socio-econômicos*. Fortaleza, CE:IBGE/IPLAMCE/UNICEF, 1992
5 Secretaria da Saúde, Ceará. *Boletim Epidemiológico do Estado do Ceará: Série – Doenças Transmissiveis – AIDS*. Fortaleza, CE: Secretaria da Saúde, 1996
6 DEEPI/SSE-Ce (State Secretary of Health-Ceará, Department of Epidemiology). *Análise Epidemiológica da AIDS no Estado do Ceará 1983–1995*. Fortaleza, CE: DEEPI/SSE-Ce, 1995 (unpublished document)
7 Nhlengethwa T, Perez L. *Report of the Training of Trainers in HIV/AIDS Prevention*. Swaziland: Project HOPE, May 1991
8 Green EC, Jurg A, Dgedge A. Sexually transmitted diseases, AIDS and traditional healers in Mozambique. *Med Anthropol* 1993;**15**:261–81
9 Scott JC, *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press, 1985
10 Bastide R. *The African Religions of Brazil: Toward a Sociology of the Interpenetration of Civilizations*. Baltimore: The Johns Hopkins University Press, 1978
11 Turner V. *The Ritual Process: Structure and Anti-structure*. New York: Cornell University Press, 1969
12 The World Bank. *Poverty: World Development Report 1990*. New York: Oxford University Press, 1990
13 Garcia C. *O que é Nordeste Brasileiro*? São Paulo: Editora Brasiliense, 1984
14 Gomes L. O agito cearense. *Veja* December 1993: 88–94
15 Nations MK, Barreto AP. Culture, saints and cures in the Sertão. In: Guerrant RL, Souza MA, Nations MK, eds. *At the Edge of Development: Health Crises in a Transitional Society*. Durham, North Carolina: Carolina Academic Press, 1996: 29–52
16 Nations MK, Rebhun LA. Mystification of a simple solution: oral rehydration therapy in Northeast Brazil. *Soc Sci Med* 1988;**27**(1):25–38
17 Pela AO, Platt JJ. AIDS in Africa: emerging trends. *Soc Sci Med* 1989;**28**(1):1–8
18 World Health Organization, Special programme on AIDS: strategies and structure, projected needs. II-3–4. Geneva, March 1987
19 Foster GM. *Traditional Societies and Technological Change*. New York: Harper and Row, 1973