

Prevalence of HIV and Other Sexually Transmitted Diseases among Colombian and Dominican Female Sex Workers Living in Catania, Eastern Sicily

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Abstract *Introduction:* STDs are a significant cause of illness throughout the world. Female sex workers (FSWs) are commonly perceived as belonging to a social group which may engage in high-risk behaviour for acquiring or transmitting HIV and other STDs.

The number of immigrant women engaged in sex work has increased in Catania, Sicily, over the last 10 years. This study aims to estimate the prevalence of HIV, HBV, HCV and syphilis among Colombian and Dominican FSWs.

Methods: In total 118 (63.78%) of the FSWs contacted in the course of the project agreed to participate in the study. All women enrolled were counselled on STDs/HIV, safer sex practices and the use of condoms. Blood samples were taken and tested for HIV, HBV, HCV and syphilis.

Results: Of the 118 FSWs enrolled, all were negative for both HIV and HCV infection. Two women (1.6%) were positive for hepatitis B (HbsAg). Syphilis testing by VDRL showed three positive results (2.5%), which was confirmed by TPHA.

Discussion: This study showed that HIV, HBV, HCV and syphilis seroprevalence among Colombian and Dominican FSWs remains low or very rare. It also indicates that these women were healthy when they arrived in Italy and that condom use with clients is high.

Keywords Female sex worker · HIV · HCV · HBV · Syphilis

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Introduction

Sexually transmitted diseases (STDs)

STDs are a significant cause of illness throughout the world and are a major public health problem. STDs have social and economic consequences because of their long-term effects (in particular, pelvic inflammatory disease and infertility). Having an STD can also add to a person's chances of contracting HIV (1–5).

Monitoring how frequently STDs are found in various groups of a given population is especially important in the attempt to reduce HIV infection. Leaving an STD untreated makes a person from 4 to 10 times more vulnerable to HIV, whereas the risk of HIV infection may actually be reduced through the prompt diagnosis and treatment of other STDs (6, 7). Data on STDs may also indicate how frequent unprotected intercourse takes place. Prevalence studies that look at how common STDs are in a given target can give us an idea of

the potential spread both of STDs and HIV in a particular population or social group (3).

Female sex workers

Female sex workers (FSWs) are commonly perceived as belonging to a social group which may engage in high-risk behaviour for acquiring or transmitting HIV and other STDs. Research has shown that in many developing regions of Africa and Asia, sexual promiscuity and population mobility feature as principal factors for HIV transmission (8). This is especially relevant for FSWs, who are often forced to leave their own country to work abroad. Mediterranean countries such as Italy have recently seen an increase in migrants arriving from developing countries (9). According to national data, most of the women who reach Italy from these countries are illegal immigrants who find themselves living in very poor socio-hygienic conditions, which greatly limits their ability to seek access to information (10–12). Any access to healthcare services these women may have is usually woefully inadequate. Language differences, the culture gap and isolation from the local population make health-seeking behaviour more difficult (9). To make matters worse, FSWs are not generally provided with targeted up-to-date information about prevention practices such as protected intercourse or safer sex (13, 14).

Context of the study

Catania is a large city in Eastern Sicily with a population of about 450,000. In the last 10 years, the city's African and Caribbean community has increased in size despite the lack of work available in the area. The female migrants working in Catania's sex industry come mainly from Colombia, The Dominican Republic and Nigeria.

Since the beginning of 1999, the local branch of the Italian national AIDS voluntary association, LILA (Italian League in the Fight Against AIDS) has run an STD consultancy centre ("*La Base*") in the area where sex workers live and work. "*La Base*" is a small three-room apartment situated in San Berillo, one of the city's most run down historical areas. The Centre was originally set up as a low threshold drop-in centre in the context of a pilot project on the use of the Female Condom in Sex Workers in Catania (15). At the time of the Centre's inauguration in 2001, San Berillo was renowned as Catania's "Red Light District" and from the data obtained at the outset of the pilot project it was estimated that 270 FSWs, most of these migrant women, were at that time living and working in this area and its immediate surrounds. A total of 96 Dominican women (19%) and 89 (85%) Colombian women were originally estimated as being among the 270 regular FSWs of the area, although the number of migrant FSWs living and working regularly here has declined con-

siderably over the past few years alongside the development of street sex work outside the city limits (16).

Since it first opened, "*La Base*" has continued to provide information about health care and related services, especially those regarding STDs. The Project Group aims in particular to help immigrant women to gain legitimate access to STD, HIV and Infectious Diseases clinics in the public health sector. Outreach workers provide information about unsafe sexual behaviour regarding STDs/HIV transmission and prevention. "*La Base*" also provides legal assistance and psychological support.

Aim of the study

Little is known about the incidence of STDs among sex workers in Sicily or, indeed, about STDs in the general population. Looking at the data collated by "*La Base*" may be useful in order to monitor and evaluate the incidence of STDs among street FSWs in Catania and can help establish the trend of these infections. It is important to note that this is the first full publication of the scientific data collected in the course of the project outlined earlier. The study was designed to estimate the prevalence of HIV infection, hepatitis B, hepatitis C and syphilis among Colombian and Dominican FSWs and to establish the behaviours that may be seen as risk factors for acquiring STDs.

Methods

Outreach workers and peer operators from "*La Base*" regularly visited FSWs at their street pitches to give them information about the services offered by the Centre. Fliers and posters were left in bakeries, hairdressers and in the Churches of the area.

At the Centre itself, women were firstly counselled by a social worker who then referred them to a physician, psychologist or legal adviser, depending on individual needs and circumstances. While they waited to see the relevant consultant, the women using the Centre were able to speak to each other and discuss their problems in an informal safe setting, similar to those provided by self-help groups. The Centre also provided information leaflets on sexual health in English, Italian, or Spanish for the women to read and take away if they desired. Apart from functioning as an information and healthcare centre, "*La Base*" also organized recreational activities, such as video evenings/informal parties, in order to encourage the women using the Centre to feel more at ease with the Project Workers and provide an opportunity to learn or practise the Italian language.

A total of 185 FSWs were approached during the preparatory fieldwork phase. Of these, 118 (63.8%) agreed to participate in the study while 65 (36.2%) refused. Reasons for

refusal included lack of awareness, not having time to take part in the study, or an unspecified lack of interest. Data collection started at the end of March 2001 and went on until the end of July 2002.

A questionnaire with questions relating to demographic data, sexual practices and other high-risk behaviours was administered by the Project Workers. All women enrolled were counselled on STDs/HIV, safer sex practices and the use of condoms.

Clinical history data gathering and blood screening were performed at the Outpatients Clinics of the Infectious Diseases Unit, University of Catania and “Ferrarotto” Hospital, Catania. Blood samples were taken and tested by commercial assays for HIV detection (ELISA and Western blot), syphilis (VDRL), hepatitis B (ELISA) and hepatitis C (ELISA 3rd generation).

All FWSs who took part in the project were asked provide written consent.

Results

From March 2001 to July 2002, a total of 118 FSWs were enrolled in the study.

Average age was 38.3 years (range 25–57). Seventy-six FSWs (64.4%) came from Colombia and 42 (35.6%) from The Dominican Republic. On an average, the women had been living in Italy for 26 months (range 3–72). Hundred percent reported a previous stable relationship in their country of origin and most had at least one family member there. The level of education was generally low, only 24 (21.4%) having completed secondary school. The median duration of commercial sex work was 1 year, and 20 (16.9%) reported having been involved in sex work in their own country. 89% solicited their clients on the streets, while 11% of the women solicited their clients in discotheques. Sexual intercourse was normally reported to occur in cars, on the streets, and in rented rooms but rarely in a house specifically designated for sex work. FSWs reported an average of around 30 different sexual partners per week. Eighty-six percent agreed that they were at risk for acquiring HIV. No FSWs had previously had check-ups for STDs.

The questionnaire results showed consistent use of condoms. Ninety-one percent (108/118) of the FSWs interviewed reported consistent condom use with clients. However, 84% (99/118) did not use protection with their regular partner.

The main general characteristics of the women involved in the study are outlined in Table 1.

Of the 118 FSWs enrolled, none were found positive for HIV and HCV infection. Hepatitis B (HbsAg) was positive in two cases (1.6%). Syphilis testing by VDRL showed three positive results (2.5%) confirmed by TPHA (Table 2).

Table 1 Main sociodemographic characteristics of the population studied

Characteristics	<i>n</i> = 118
Age (years)	
Median (range)	38.3 (25–57)
Nationality, <i>n</i> (%)	
Colombian	76 (64.4%)
Dominican	42 (35.6%)
Education, <i>n</i> (%)	
Secondary school	24 (21.4%)
Primary school	94 (79.6%)
None	
Marital status, <i>n</i> (%)	
Married	18 (15.3%)
Stable partner	37 (31.3%)
Single	63 (53.4%)
Use of condom, <i>n</i> (%)	
With stable partner	19 (16.1%)
With client	99 (83.9%)
Lifetime history of STD	Unknown
Use of illegal substances	None
Use of alcohol, <i>n</i> (%)	46 (39.0%)

Discussion

In 1996, WHO estimated 340 million new cases of curable STDs every year. Looking at the prevalence and incidence for STDs in Latin American and the Caribbean on the basis of sub-regions, the Andean area (which many of the FSWs of our study come from) showed the highest STD trend following Brazil. Most of the STDs were seen to be the result of unprotected sexual intercourse, whether homosexual or heterosexual. The latter is closely connected to prostitution, which is widespread in these countries (17). Although many studies have been carried out in Latin America to estimate HIV and STD prevalence, specific information regarding Colombia and The Dominican Republic is lacking.

Overall HIV prevalence in Colombia is estimated to be 0.4%. The HIV prevalence among FSWs in Colombia (primary cities and surrounding areas) ranges between 0.2 and 1.4% (6, 18). Overall HIV prevalence is higher in The Dominican Republic, being 2.5% in the general population and ranging from 4 to 10% among FSWs (6). The “Consejo Nacional para la Prevención y Control del SIDA” (CONASIDA)

Table 2 Prevalence of STDs in the population studied

	Colombians (<i>n</i> = 76)	Dominicans (<i>n</i> = 42)	Total (<i>n</i> = 118)
Serology			
Anti-HIV positive	—	—	—
Anti-HCV positive	—	—	—
HBsAg positive	2 (1.6%)	1 (0.8%)	3 (2.5%)
VDRL positive	2 (1.6%)	1 (0.8%)	3 (2.5%)

reported that heterosexuals may represent one of the most significant transmission groups in these areas. Seventy-five percent of Dominican HIV-positives and 48% of Colombian HIV-positives are heterosexual with multiple partners (18).

As far as HBV infection is concerned, the overall prevalence reported is 21.4% in The Dominican Republic, while prevalence ranges from 35 to 93% in Colombia (19).

Data for HCV and syphilis infection is incomplete as most studies have focused on trends in Central America (18, 19).

Our study showed that HCV, HBV, syphilis and HIV seroprevalence among Colombian and Dominican FSWs remains low or very rare. It is certainly lower than data reported from Latin America and from Italy (6, 14, 20, 21). An Italian study focusing on HIV prevalence among foreign transsexual sex workers has shown a higher infection rate among the Colombians (22.6%), especially when associated to inconsistent condom-use, injecting drug use and intercourse with a partner known to be HIV-positive (21).

The STD/HIV prevalence highlighted among FSWs in this study, was seen to be lower than previously reported in the same population in other countries, such as Nigeria and Canada (22–24).

Our data appear to confirm the success of the safer-sex promotion campaign, as Alary *et al.* explain in a study that identifies prevention programs and condom promotion as the cornerstone of declining STD/HIV rates of infection. It also indicates that consistent condom use with clients is high, as FSWs themselves revealed during interview and/or reported in the questionnaire (25). Surprisingly, some of the data available for STD/HIV prevalence in Italian sex workers suggests that the use of condoms is in fact more consistent among Colombian FSWs than in Italian FSWs (21). However, other studies have reported a very high use of condoms among Italian FSWs (26, 27). In such studies, inconsistent condom use was related to intravenous drug use and non-paying partners. These apparently contradictory results may be explained by focusing on possible cultural diversity among women from different countries and among those women who are from the same country but belong to different socio-economic strata. The mobile population is at high risk for HIV both because migrants are away from their home environment and because, due to the nature of their work, they have limited access to health services and health care information. As a consequence, mobile groups can serve as “bridges” between high-risk groups and low-risk groups (28, 29). It is also important not to lose sight of the reasons why migrant women become involved in the sex trade in the first place. The very low infection rate seen among Latin American FSWs in our study suggests that these women were healthy and free from infection when they arrived in Italy. In fact, most of them (75%) were not sex workers in their country of origin. It is tempting to hypothesise that these women may have planned to work as sex workers for a short period, intending even-

tually to find a steady partner, get married and start a new family or return home. This is in contrast with the majority of Italian FSWs, many of whom become street sex workers in order to earn money to feed a drug habit.

The consistent differences observed in condom use among FSWs may depend on the women’s personal reasons for becoming a commercial sex worker. Management and control by a “pimp” or simply the desire to make more money can lead to a significant difference in the decision as to whether to use a condom or not. In this context, the role of the client is also crucial, as clients tend to be willing to pay more for intercourse without protection. Financial dependence and socio-cultural constraints also obstruct the adoption of risk-reducing behaviours (30). They diminish a woman’s ability to carry out safer sexual practices, even when FSWs understand the importance of preventive measures. Condom use reported among FSWs in our study was also seen to be inconsistent with a steady partner (15%), thus increasing the possibility of infection.

Conclusions

The most important finding from this study concerns its feasibility. It was fundamental to involve peer workers operating in the area where sex work takes place. Living in close contact with the inhabitants, peer operators were facilitated in making and maintaining contact with FSWs and the word-of-mouth advertisement was crucial.

The main FSW population reached was Latin American rather than African. Indeed, reaching Colombian and Dominican women was quite successful and the women originating from these areas appeared to embrace their right to access the health-care service. In this regard, health-seeking behaviour was fundamental for successful strategies. One reason to explain why it was easier to gain the trust of Colombian and Dominican women lies in the issue of cultural diversity between the two groups of street sex workers. This diversity determines a different approach and attitude to sex work. Nigerian FSWs, perhaps because of stigmatization, tend to practise a more clandestine form of prostitution. They are also much more vulnerable because they tend to be younger than their South American counterparts and because they are more strictly controlled by a “pimp.” In contrast, Colombian and Dominican FSWs tend to be more independent and are thus better able to make decisions regarding healthcare and sexual behaviour for themselves.

In conclusion, the main priorities for the future as shown by the results of our study are expansion to reach African FSWs and collating data to compare STD/HIV prevalence with socio-economic and demographic characteristics. It is also our intention to monitor the seronegative FSWs enrolled so far in order to assess the proportion of seronegative

subjects who become exposed to HIV in the course of their residence in Italy. More research also needs to be done regarding sexual behaviour (with clients and with regular sexual partners) and attention should be given to targeting and expanding preventive measures taken against STDs by FSWs and their clients/regular partners. An epidemiological analysis of the relation between the earlier-mentioned characteristics regarding FSWs and the prevalence of STD infections is currently underway.

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