Sexual behaviours of clients of sex workers reported within phone calls at HIV/AIDS/STIs Italian Helpline

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Abstract

Background. Clients of sex workers represent a relevant target for interventions aimed at the prevention of HIV and sexually transmitted infections (STIs). Within prevention strategies, the AIDS and sexually transmitted infections helpline (Telefono Verde AIDS/ IST, TVA-IST) of National Institute of Health in Italy has provided, since 1987, specific information and counselling interventions.

Aim. The present study reports data on anagraphical characteristics and behaviours of clients of sex workers, anonymously reported at TVA-IST in the period 1987-2010.

Discussion. Among 95 149 phone calls (14% of the total) considered 99.5% came from males, over 80% aged under 37 years and prevalently from Northern Italy. Among sexual behaviours, unprotected sexual intercourses were reported in the 26% of the calls. Subjects under 27 years reported a higher frequency of unprotected anal intercourse, while they used protection with oral and vaginal intercourses in a greater extent than older ones. Due to differential behaviours within clients of sex workers, specific informative strategies for this targeted population should adequately consider age-related differences.

INTRODUCTION

In the last ten years a stabilization of the incidence of HIV infection was observed in Italy, together with some changes in the ways of transmission. Indeed, a progressively increasing number of cases of HIV seropositivity was related to unprotected sexual intercourses (both homosexual and heterosexual), with the decrease of cases ascribable to other transmission routes [1].

Epistemological data from the AIDS Epidemiologic Unit of the Istituto Superiore di Sanità (ISS, National Institute of Health in Italy) show that, compared to twenty years ago, a lower number of individuals gets HIV infection today and that, since the introduction of highly active antiretroviral therapy, the number of living HIV-positive individuals has progressively increased [2].

In this new scenario the spreading of HIV infection results no more limited within specific risk groups, but potentially involves the whole population through sexual intercourses. Indeed, in general perception, HIV infection is still associated to homosexuality or highly transgressive sexuality and the transmission risk through heterosexual intercourses are underestimated.

Key words

- HIV
- clients of sex workers
- commercial sex
- condom use

Based on his evidence, commercial sex workers are a highly vulnerable group for both HIV infection and other sexually transmitted infections (STIs). Moreover, it is necessary to pay special attention to clients of sex workers, which are not a homogenous population, not so easily identifiable and targetable by prevention campaigns [3].

Many research studies were therefore aimed to the identification of motivational sociobehavioural characteristics of individuals regularly or sporadically attending sex workers. Among them, a study conducted by Monto *et al.* on the field of prostitution pointed out that the pursue of commercial sex practices is motivated by the following reasons:

- illegal nature of the intercourse;
- desire to have a higher control of own sexual experiences;
- difficulty in getting involved in a committed relationship;
- wish to avoid emotional involvements and responsibilities residing in a relationship;
- research of company, love and intimacy.

According to the client reports, one of the main reasons for their demand of prostitutes is the research of sexual practices to which they normally do not have access, mainly due to refuse by usual partner. Among them, the most required practice is the *fellatio* which is perceived as at lower risk for STIs transmission, thus not requiring condom use. Indeed, some studies specifically highlight that clients of sex workers mostly require and prefer this practice [4, 5] and condom use is prevalently required by sex workers [6-9].

A study conducted in China pointed out that clients of prostitutes represent a bridge-target for the transmission of HIV infection from high-risk sex workers to low-risk general population and, for this reason, clients of prostitutes are a key target for prevention programs. Indeed, some studies show that clients of sex workers have a higher prevalence of HIV and other STIs and may spread infections within general population [10-13].

This observation is also supported by a research conducted in India, where more than half of clients of sex workers declared to be married [13, 14].

In this alarming scenario the greatest risks for community health are the unawareness of HIV risk and the absence or delay of HIV testing. Indeed, data from ISS show that in the last years over 50% of AIDS diagnosis has been made in persons who were not aware to be HIV-positive, or who discovered their seropositivity in the previous six months. This suggests that a considerable number of HIV-positive persons, due to limited access to screening and counselling services, are not aware of their condition, do not take any precaution to prevent the transmission and can not benefit of the available therapies [2, 15-19].

Considering the absence of a preventive vaccine and of therapies capable to permanently eradicate HIV infection, prevention programs, aimed to reduce infection risk through scientifically correct personalized information, are the most critical tools to contain HIV diffusion. Among the different information interventions on HIV infection, personalized counselling action has been proven to be particularly effective; it is a relational process lead by an expert operator, which allow to activate personal inner and outer resources to face stressing situations or to make decisions, responsibly and consciously, in an independent way.

The AIDS and sexually transmitted infections Helpline (Telefono Verde AIDS/IST: TVA-IST. 800.861.061 only from Italy), provided by psycho-sociobehavioural Research, Communication, Education Operative Unit of the ISS, is a specific field of telephone counselling intervention, aimed to provide scientifically valid, updated personalized information about both HIV/ AIDS and STIs. Co-financed by the Italian Department of Health, TVA-IST Helpline has been performing for more than twenty-five years (Monday to Friday, 1:00 pm to 6:00 pm) a free and anonymous telephone counselling activity on HIV infection. Since June 2010 the service has been extended also to the issues related to STIs.

The intervention involves the presence of adequately trained operators, able to complement scientific expertise with communicative-relational skills. The team of TVA-IST Helpline is composed of researchers (psychologists, communication experts, medical doctors and lawyers) who daily update both technical-scientific and communicative-relational expertise to provide an effective professional support to the persons/callers, decoding the questions, offering personalized answers and, where necessary, addressing them to diagnostic/clinic centres, non governmental organizations and voluntary associations on the national territory. Telephone counselling intervention is free from prejudices and directive impositions and aims to facilitate the activation of *empowerment* processes, essential for turning a person into active subject within the promotion and protection of health [20].

The present work focuses on sex workers' clients who have contacted TVA-IST Helpline in the last 23 years, with the specific aim of collecting and extrapolating useful information on socio-anagraphic and behavioural characteristics of this selected target population.

MATERIALS AND METHODS

Study sample

The study sample has been collected from data of the persons who contacted TVA-IST Helpline and underwent a counselling intervention related to HIV/ AIDS or STIs in the period 1987-2010. Specifically, data from individuals who reported sexual intercourses (including vaginal, anal and oral sex) with sex workers were specifically selected (95 149 subjects) and stratified into five groups based on the following age ranges: 18-27 years, 28-37 years, 38-47 years, 48-57 years, higher than 57 years.

Data collection

In the course of the phone counselling intervention, in order to provide personalized information and adequate answers to the questions, essential anagraphic data, *i.e.* residence region, gender and age, were anonymously collected together with information on sexual behaviour and personal concern of STIs. Data analysis was performed by IBM SPSS Statistics 19.

RESULTS

TVA-IST Helpline has recorded, in the period June 1987 – December 2010, 671 823 phone calls. Among them, 95 149 (14% of total calls) came from users, almost exclusively males (99.5%), who reported sexual intercourses (vaginal, anal or oral) with sex workers. In 13.7% of cases the callers reported to have previously contacted the Helpline for the same questions. Overall, 93.4% of calls reported sexual intercourses with female sex workers, while only 6.6% with transsexuals.

The greatest amount of phone calls from customers of sex workers has been recorded in 1995 and 1996 (8.3%, and 8.4% respectively, compared to 4.5% in 2010) and was prevalently from clients of female sex workers, since the number of calls from clients of transsexuals was quite constant over the years (*Figure 1*).

As shown in *Table 1*, the 41.6% of users who reported sexual intercourses with sex workers were in the age range of 18-27 years old, while 40.6% in the range of 28-37 years old. Thus, over 80% of this targeted population

Table 1

Socio-demographic characteristics and sexual behaviours reported from the users who declared sexual intercourses with female sex workers and transsexuals at the TVA-IST Helpline in the period from June 1987 to December 2010

		Total		Female se	Female sex workers		exuals
		Ν	%	Ν	%	Ν	%
Gender	Male	94 645	99.5	88 371	99.5	6274	99.2
	Female	495	0.0	448	0.5	47	0.7
	NI			7	0.0	2	0.0
	Total			88 826		6323	
Age range	18-27	39 624	41.6	37 316	42.0	2308	36.5
	28-37	39 061	40.6	36 257	40.8	2813	44.5
	38-47	12 571	13.1	11 571	13.0	1000	15.8
	48-57	2934	3.0	2770	3.1	164	2.6
	> 57	950	1.0	912	1.0	38	0.6
	Total			88 826		6323	
Average age		30,4		30,4		31	
Median age		29		29		30	
Origin	Northern Italy	45 049	47.3	42 615	48.0	2434	38.5
	Central Italy	28 454	29.9	25 564	28.8	2890	45.7
	Southern Italy	16 437	17.3	15 645	17.6	792	12.5
	Islands	5155	5.4	4954	5.6	201	3.2
	Not Reported	45	0.1	48	0.1	6	0.1
	Total			88 826		6323	
	Receptive oral intercourse unprotected	14 768	14.3	13 869	14.5	899	12.3
	Insertive oral intercourse unprotected	2036	0.0	1651	1.7	385	5.3
	Oral intercourse protected	6932	0.0	6375	6.7	557	7.6
	Anal intercourse unprotected	20 858	0.2	19 038	19.9	1820	24.9
	Anal intercourse protected	1465	0.0	769	0.8	696	9.5
	Vaginal intercourse unprotected	1847	0.0	1823	1.9	24	0.3
	Vaginal intercourse protected	17 192	0.1	17 106	17.9	86	1.2
	Others	37 696	0.3	34 862	36.5	2834	38.8
	Total	102 794		95 493		7301	

prevalently in the age range 28-37 followed by 18-27.

As for the geographical distribution, 47.3% of calls came from the Northen Italy, 29.9% from the Central Regions, 17.3% from the Southern Italy and 5.4% from the Islands (Table 1). Adjusting these data for the distribution of population in the different geographic areas, Northern Regions showed the highest calls adjusted ratio (137.3/100 000 inhabitants), followed by Central (86.8) and Southern (49.7) ones. Focusing on age distribution on the territory, a bivariate analysis has been performed to analyze the relations between main geographic areas and age group distribution of callers. Overall, it resulted statistically significant (p < 0.05). Among the different regions considered, Lombardy, the main region in Northern Italy, was the one from which the TVA-IST Helpline received the greatest number of calls from customers aged in the range of 28-37 years (8.2% of the total). Of note, calls from those who reported intercourses with transsexuals came prevalently from the Central Regions (45.7%), differently from clients of female sex workers who were prevalently from Northern Italian Regions (48.0%).

Type of sexual behaviour

The cumulative number of questions within calls from clients of sex workers in the period 1987-2010 was 276 507, corresponding to a mean of 2.9% questions for each call.

84 547 questions (31%) were related to sexual behaviours associated to HIV transmission and of these the 27% were about anal intercourse (25% reported unprotected), the 22% on vaginal intercourse (2% reported unprotected), and the 27% on oral sex. Among the calls from sex workers customers, 24 729 (33% of total calls) reported sexual intercourses at risk for HIV transmission.

The analysis of the distribution of the questions on sexual behaviour according to the different age groups showed interesting data (see Table 2). The amount of subjects who reported oral sex increased with the age (from 26.2% in the range 18-27 to 37.5% in over 57) while the protection of this intercourse was reported mainly by younger subjects (31.2% vs 11.2% for ages 18-27 and over 57 respectively). Anal sex was reported mainly by younger subjects (30.7%) vs 24.3% for ages 18-27 and over 57 respectively) with a similar degree of protection (< 5% for all age groups). Vaginal intercourses were reported in similar extent (21-25%) by differently aged subjects but the protection was reported mainly by the youngest ones (90.7% vs 65.8% for ages 18-27 and over 57 respectively).

The distribution of questions was then analyzed in relation to the information on the geographic area (see Table 3). Questions related to oral and anal intercourses resulted the most frequent in all the different geographic areas, without relevant differences.

DISCUSSION

In the present study, essential anagraphical data (gender, age, geographic area) and information on sexual behaviour from persons reporting sexual intercourses with sex workers at TVA-IST Helpline in the period 1987-2011 were specifically collected and analyzed to the aim of characterizing the main features of this targeted group of callers and identify specific and adequate informative tools.

Among persons reporting sexual intercourses with sex workers most of them sought for female sex workers and only a small fraction for transsexuals. As expected, they are almost exclusively males with a median age of 29 years, confirming literature studies which report age ranges between 25 and 39 years [6, 20, 21]. Interestingly, the mean age of persons reporting intercourses with female sex workers was lower than those with transsexuals, suggesting that the formers prevalently included young adults without stable partnership. As experienced for most calls at TVA-IST Helpline, persons who declared to be sex workers

did not exceed the age of 37. Clients of transsexuals were

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Temporal trend of calls from

clients of sex workers in the

period 1987-2010, cumula-

tively and upon distinction

between female sex workers and transsexuals. Phone calls at TVA-IST Helpline from persons reporting

sexual intercourses with sex workers have been stratified, in the period 1987-2010,

in three years intervals. For each interval the number of total calls (dotted line) and that of calls upon distinction

between female sex workers (dashed line) and transsexuals (continuous line) is herein

reported

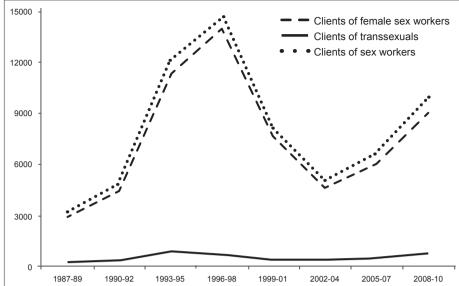


Table 2

Differential distribution of sexual behaviours within clients of sex workers according to the different age groups

	18-	18-27 28-37		37	38-47		48-57		> 57	
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Receptive oral intercourse unprotected	5657	16.4	6257	17.8	2137	18.6	516	19.7	201	25.1
Insertive oral intercourse unprotected	550	1.6	888	2.5	414	3.6	118	4.5	66	8.2
Oral intercourse protected	2840	8.2	2875	8.2	1014	8.8	169	6.5	34	4.2
Anal intercourse unprotected	10 076	29.2	7941	22.6	2191	19.1	461	17.6	189	23.6
Anal intercourse protected	503	1.5	657	1.9	258	2.3	41	1.6	6	0.7
Vaginal intercourse unprotected	708	2.1	690	2.0	264	2.3	129	4.9	56	7.0
Vaginal intercourse protected	6971	20.2	7269	20.7	2309	20.1	535	20.4	108	13.5
Others	7220	20.9	8561	24.3	2876	25.1	650	25.2	142	17.6
Total	34 525	100	35 138	100	11 463	100	2619	100	802	100

Table 3

Differential distribution of sexual behaviours within clients of sex workers according to the different geographic areas

	Northern Italy		Central	Central Italy		Southern Italy		Island	
	Ν	%	Ν	%	Ν	%	Ν	%	
Receptive oral intercourse unprotected	6688	16.6	4581	18.1	2702	18.7	791	17.5	
Insertive oral intercorse unprotected	1110	2.8	585	2.3	271	1.9	70	1.5	
Oral intercourse protected	3451	8.6	2211	8.7	981	6.8	286	6.3	
Anal intercourse unprotected	9870	24.5	6367	25.2	3315	22.9	1292	28.6	
Anal intercourse protected	583	1.4	572	2.3	217	1.5	91	2.0	
Vaginal intercourse	738	1.8	540	2.1	432	3.0	137	3.0	
Vaginal intercourse with condom	8387	20.8	4658	18.4	3162	21.8	977	21.7	
Others	9416	23.4	5771	22.8	3389	23.4	866	19.2	
Total	40 243	100	25 285	100	14 469	100	4510	100	

clients reported to live prevalently in the Northern and Central Region of Italy, suggesting that the concern of HIV risk and prevention varies significantly according to living geographic area, based on differential cultural background and educational status. It is quite complex to identify an accurate profile of this target population due to marked differences in age, marital status, ethnic origin, cultural, socio-economic status and psychological attitude towards sex [22].

The present study was specifically aimed to the characterization, within this population group, of the role of differential factors, as the age and geographic **ORIGINAL ARTICLES AND REVIEWS**

distribution, on the sexual behaviours and concern on the risk of STIs transmission.

Among the sexual behaviours reported the unprotected anal intercourses were in a higher extent than with other subgroups of callers, particularly by youngest persons. This appears in contrast to the literature, since anal intercourse, although practice highly desired by men [4], has not been reported to be the main reason for which people pay for sex. Conversely, oral sex was reported mainly by older subjects, who declared to use protection in a lesser extent than younger ones. No relevant differences were observed about vaginal intercourses among the different age groups, also if the younger ones more frequently reported protected vaginal intercourses. Cumulatively, subjects aged under 27 years reported a more frequent use of protection in the intercourses with sex workers. This may be due to a higher concern about the risk of sexually transmitted infections as vounger people are potentially more receptive to informative interventions. No differences were noticed in sexual behaviours within the geographic areas considered, also if most calls came from Northern and Central regions of Italy.

The evaluation of sexual behaviour and concern of HIV risk within sex workers' clients has not been widely performed as for sex workers category. We strongly believe that this population group, which is a potential bridge between high risk and low risk communities should be adequately targeted for HIV and STIs prevention purpose. Indeed, recent studies from Switzerland showed a high rate of acceptance of HIV testing by street-based sex workers' clients [23, 24].

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Specifically targeted information is therefore necessary in this population group for inducing HIV risk concern and promoting protective sexual behaviours.

CONCLUSIONS

Specific information on sex workers clients in Italy has been collected since 1987 at TVA-IST Helpline within anonymous phone counselling interventions, allowing an analysis of anagraphical and sexual behaviours related to the potential exposition to HIV and STIs. We are aware that the study may have the typical limitations of any phone-based data collection based on self-declaration, but results suggest that informative interventions and STIs prevention strategies targeted to this selected population should also be focused on the basis of age range and awareness of infection risk. Further studies are therefore necessary to better characterize the features who affect the STIs risk concern and behaviour of sex workers clients.

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Conflicts of interest statement

None declared.

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