Epidemiological study

FACTORS INFLUENCING SPREAD OF STD
Epidemiological situation in high risk groups in Vienna

W. Kopp and S. Höven - Fritscher

ABSTRACT

The legal regulations and financial aspects of examining and treating prostitutes in Vienna are shortly reviewed. The epidemiologic situation, which has been under control, started to deteriorate with the inflow of foreign, medically not examined female sex workers from Africa, Asia and the Caribbeans attracted by the promises of a wonderful life in the rich West. They hesitate to ask for police help, if they are urged to render sexual services, out of fear to be punished by their contractors or expelled back home by the state authority. Since 1991 the borders of East-European countries have stood open and a number of young women are offering sex for money. About 50% of those tested were found to be infected with Neisseria gonorrhoeae. The possibility of free examination and treatment together with further preventive measures provided by Public Health STD Clinics in Vienna and neighbouring countries has made possible the reverse of such a trend since 1993. Results of a comparative study including registered prostitutes, illegal prostitutes, club hostesses and other STD patients are reported.

KEY WORDS

epidemiological situation STD, influencing factors, high risk groups. comparative study, Vienna

INTRODUCTION

In a decree promulgated by the Imperial Government for Lower Austria and Vienna in 1887 regulating the medical examination of registered prostitutes it was stressed, that the examining physician should use this opportunity to inform these women about venereal diseases and their signs and symptoms and to instruct them how to reduce risks of infection by taking various hygienic measures. In 1978 it was made possible to treat prostitutes in the Public Health facilities free of charge and without discrimination. This brought about the health-promoting impact that more and more of the clandestine prostitutes did not hesitate to admit their way of living and to appear for regular examinations.

In 1984 the federal finance administration found it right and useful to collect taxes from prostitutes. The Public Health Authority made it clear, that this measure would have an adverse effect on health-promoting measures and although our STD outpatient clinic did not reveal listed persons as requested by

the revenue office, the number of registered prostitutes has constantly been dropping. Now many of the "female sex workers" prefer to stay clandestine to any kind of authority or they visit our Public Health (PH) STD Clinic as "private persons". This additionally may be influenced by the AIDS situation. Into this place of need girls from developing countries are moving, often inexperienced and patronized by organizations promising them a wonderful life in the rich West. Usually these young girls from Africa, Asia and the Caribbeans are hired as service girls, artists or as personal friend of a "girl collector". Often they have children of their own back home, but no husband and want to send them the money they hope to earn to secure their families a better living. They hesitate to ask for police help, if they are urged to render sexual service, out of fear either to be punished by their souteneurs or to be expelled back home by the police. Since 1991 the borders of the East-European countries have stood open for a number of young women from our direct neighbourhood as Czechia, Slovakia, Hungary and the former Yugoslavia. It is accepted that some of them are going to offer sex for money. Often they cross the border just for a few hours or days, as western sex tourists cross the border to support with their hard currency the quick-developing sex industry there. So the exchange of money and STDs is well taken care off in different ways and the sex clippers to Thailand. Philippines and other Far Eastern countries have got some serious competition just next door.

OBSERVATIONS AT THE PUBLIC HEALTH STD CLINIC IN VIENNA

Services of PH STD clinic must be provided in such a way as to be accepted by our clients in spite of social, language and cultural barriers. The goal is to limit the spread of special infectious diseases as protection for the general population, and just as well to supply individual help to disabled or infected persons. (Table 1)

The clients of the PH STD outpatient clinic consist of a variety of different groups with their proportions changing.

In 1991, after the opening of the border with Czechoslovakia, many young women came from there to Austria to render sexual services for quick money. Of those tested, 50% were found to be infected with NG when seen first in our PH STD clinic. Free treatment was provided, condoms were given

Table 1.

Screening regimen for female sex workers (FSW) is adapted to medical demands and financial feasibility:

Weekly:	Clinical control of skin and mucous membranes. Cervical and urethral stained smear.
Every 6th week additionally:	Cultures of Neisseria gonorrhoeae (NG) from urethra, cervix, pharynx and rectum. Cultures for Trichomonas vaginalis, Candida and Chlamydia trachomatis (ELISA). Syphilis and HIV serology.
Once a year:	Cytological screening (Pap smear). Chest X-ray.
At the beginning:	Viral hepatitis B markers and vaccination offered when necessary. Other investigations on requirement.

to the examined, and different instructions in their native languages were distributed. This and the efforts of venereal diseases (VD) treatment centers of neighbouring states led to a sharp reduction of infected persons from 50% VD to 18% within one year and to 10% in 1993 on first visit. The ratio dropped from 83 infected out of 100 persons in 1992 to 36 in 1993.

Night club hostesses and bar-girls, listed as separate group since 1992, have been responding voluntarily more or less regularly to medical checkups. (Table 2).

Of rising importance is the group of other persons with STD problems asking for help. Due to the high number of refugees and displaced persons the proportion of foreign citizens is high: Among registered prostitutes 28%, among bar-girls 77%, and among other STD clients 31%. 98% of all venereal diseases as defined by law, diagnosed 1993 in our STD Clinic, consisted of gonorrhea, so figures for gonorrhea resemble those for VD.

In 1993 36 out of 100 club hostesses were infected with gonorrhea compared to 83 in 1992, but only 3 (8 in 1992) of 100 registered prostitutes. (Table 3)

Club hostesses were seen in the average 9 times a year, registered prostitutes 38 times and illegal prostitutes less than 2 times and stayed infectious

Table 2 Number of patients and number or investigations in various groups or patients. Public Health STD Clinic. Vienna 1994

	Persons investigated		Investigations	
	No.	%	No.	%
all persons investigated	1746	100	27262	100
registered prostitutes	788	45	23382	86
illegal prostitutes	236	14	382	1
club hostesses	176	10	1756	6
other males	288	16	769	3
other females	258	15	973	4

for much longer time. So the epidemiological impact can better be demonstrated giving the percentages of positive findings of investigations: in registered prostitutes 0,1%, club hostesses 3,8% and illegal prostitutes 7,0%. (Table 3) The calculated probability to become infected with gonorrhea was 38 times higher in club hostesses and 70 times higher in illegal prostitutes than in registered prostitutes.

For the reduction of VD incidence in bar-hostesses within one year from 83% to 36% there are many reasons, some of which seem to be:

- instant and "one shot" treatment,
- promulgation of condom use with free samples,
- on every occurrence of a STD this was constantly pointed out as a hint for sexual behavior by which HIV could be acquired.
- improving routine for foreign "sex workers" in safer sex,
- improving care for STD risk groups in countries of origin,
- decrease of VD in Vienna from a total of 1268 in 1992 to 941 in 1993.

The occurrence of chlamydial infections was generally decreasing, it was relatively high only in club hostesses, who are mostly of foreign origin. The rate of positive persons dropped from 36% in 1992 to 23% in 1993 and the rate of positive investigation results dropped from 27% to 19% in the same period. The high infection rate with Clamydiae is possibly due to the absence of screening in the countries of their origin.

In 1993 out of 224 examined club hostesses 134 non venereal STDs were revealed in 100 persons (multiple infections in one person), compared to 265 such infections in 1992 in 100 persons. Here again frequent examinations can reduce the risk for the women themselves as well as for their partners, which fact is demonstrated by the above cited figures. The epidemiological impact is visible in the percentage of positive findings related to the number of investigations: 25% in 1992 and 14% in 1993. In such a way it was possible to reduce to a high degree the risk for the club hostesses and for their partners. It is estimated however that about 90% of these girls are not taking advantage of the Public Health STD service. (Table 3)

Up to now HIV infection is no major problem for the registered prostitutes. Since the beginning of the screening in 1985 till the end of 1994, 11 were found to be infected. Only two of them were not i.v. drug users. In the same period 17 illegal prostitutes were infected with HIV, the majority of them being

Table 3. Number and percentage of venereal diseases (VD) in five population groups. Data are from the Public Health STD Clinic in Vienna in the years 1992 and 1993

	1992		1993		1992	1993	1992	1993
	No. Persons	No. Investigations	No. Persons	No. Investigations	No. (%) of VD patients		% of positive investigations for VD	
registered prostitutes	916	30458	847	27035	74 (8,0%)	28 (3.3%)	0,2	0,1
illegal prostitutes	186	352	212	397	39 (21,0%)	28 (13,2%)	11,1	7,0
club hostesses	162	1693	224	2113	134 (82,7%)	80 (35,7%)	7,9	3,8
other males	373	927	368	920	49 (13,0%)	48 (13,0%)	5,3	5,2
other females	281	917	287	1083	22 (7,8%)	28 (9,8%)	2,4	2,6

i.v. drug users, while four were coming from an African country with high risk for HIV. HIV was revealed more frequently than syphilis; HIV 1 out of 194 and syphilis 1 out of 436 persons.

Hepatitis B (HB) screening with offer for vaccination started in 1993 and was well accepted. For screening ELISA tests (Abbott) were used, and for vaccination the Engerix B vaccine (Smith Kline Beecham).

The prevalence of HBV markers was significantly higher then in the everage population of Vienna. (Table 4).

Table 4. Results of screening for hepatitis B virus antibodies (Ab) and antigens (Ag) at the Public Health STD Clinic in Vienna during the 1993/1994 period.

	positive for one or more HBsAg, HBsAb, HBcAb	positive only HBs Ag
registered prostitutes	19.1%	1%
illegal prostitutes	44.4%	3.7%
club hostesses	29.4	0.9%
other STD patients	39.1%	3.3%

I.v. drug abuse, African origin and irregular condom use were the most important risk factors in our patients. Of those under consideration for vaccination, 69% of the registered prostitutes and 85% of regularly examined bar hostesses accepted the vaccination in spite of the fact that a part of the cost of vaccination had to be paid.

CONCLUSION

Regulated licensed prostitution is a most effective way to cut down infections in this group and to secure treatment in a short time. For persons engaged in prostitution this is the safest way, but it is not well accepted everywhere. For persons with sexual high risk behaviour counseling and treatment must be offered free of charge. The spread of infections does not care for nationality.

Health and social workers must be encouraged not to give up in frustration.

Enforced treatment is generally not efficient, it should be applied through persuasion. Only few infected come because of symptoms, most of them must be motivated for screening and treatment by other means.

Treatment should not be delegated. Immediately applied one-shot treatment should be chosen whenever possible. Even for illegal prostitutes and nightclub hostesses the offer of medical checkups and necessary treatment can reduce prevalence of infections. Free medical service is more likely to reduce infections than punishment and prosecution. Medical care must be combined with social care and delivered under circumstances acceptable to users. Only a cooperative client can be treated best and effort must be made so that necessary regulations are willingly accepted. Routine examinations should not be seen as an incriminating procedure.

In regularly checked female sex workers the prevalence of STDs is lower than in the group of their customers. With illegal prostitutes the clients carry a bigger risk.

Experienced female sex workers are able to convince their guests in methods of safer sex.

Sex workers have to be offered the opportunity for regular medical examination and advice, friendly enforcement is usually necessary but difficult to achieve. Such an approach may somewhat differ from one society to another.

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AUTHORS' ADDRESSES

Wolfgang Kopp MD, Hofrat, dermatovenerologist, Head of Public Health STD Clinic, City of Vienna, Neutorgasse 20, A-1013 Wien 1, Austria.
Sabine Höven-Fritscher MD, same address