Health risk profile of prostitutes in Dublin

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Summary: This study examined the health risk profile of prostitutes in Dublin. Clinical records of all 150 new prostitutes who attended a drop-in clinic for prostitutes in Dublin city during the period 1991-1997 were reviewed. Variables examined included: age, use of injectable drugs, human immunodeficiency virus (HIV) status, hepatitis B and C status, presence of sexually transmitted disease (STD), cervical cytology. Results showed the mean age of the women was 32 years. Among those tested, 2.5% were HIV positive, 5% were hepatitis B positive, 8% were hepatitis C positive and 25% had an STD. Almost 8% were injecting drug users (IDU) with higher prevalences of HIV, hepatitis B and C compared with non-IDU (P < 0.001). The clinic has been successful in providing a health-care facility for the specific health needs of this patient cohort.

Keywords: Prostitution, sexually transmitted disease (STD), hepatitis B, human immunodeficiency virus (HIV), Dublin

INTRODUCTION

Prostitution has been recognized as a high-risk activity for the spread of STD1,2 and recently HIV3. In addition, the presence of STD is an important co-factor for HIV transmission4. The fact that a proportion of prostitutes are IDUs who use prostitution as a means of supporting their drug habit5-8, increases the risk of HIV spread. In Europe, cases of HIV transmitted through injecting drug use or heterosexual contact continue to increase9, In 1991, the Eastern Health Board, which provides health services for this region of Ireland, initiated a Women’s Health Project as part of its HIV prevention strategy. It is run from a community hospital in south Dublin and aimed at women working in prostitution, offering a wide range of health-care services. These include screening for STD, HIV testing and counselling, cervical cytology, hepatitis B screening and vaccination, and family planning. The Women’s Health Project is a member of EUROPAP10, a European network for HIV and STD prevention among prostitutes. This study describes the health profile of prostitutes attending in relation to risk factors for the spread of STD and HIV.

METHODS

The Women’s Health Project provides health-care services for prostitutes through a weekly drop-in clinic during the late evening. Prostitutes are encouraged to attend by outreach workers. A basic health screen for risk factors related to prostitution is offered to women on their first attendance. We undertook a retrospective study of the anonymized records of all new prostitutes who attended between 1991 and mid-1997. Parameters measured were as follows: age, marital status, smoking status, injecting drug use, hepatitis B and C status, proportions who undergo HIV testing, proportions who had screening and diagnosis of STD on attendance and methods of family planning. The data were analysed on Epi Info 6-04 software11. Chi-square tests for statistical significance and relative risks were calculated. Where items of data are missing, the analysis relates to the number for which data were available.

RESULTS

A total of 150 prostitutes attended the clinic during the study period. The age of women ranged from 16-59 years. Smoking status was available for 140 women; 83% (116/140) of whom smoked. Higher proportions of women in older age groups smoked although this did not reach statistical significance. The marital status was available for 137 women, of these, 26% (36/137) were married, 50% (69/137) were single and 23% (32/137) were separated or divorced.
Table 1 shows the proportions of women who were smokers or who were separated/divorced in each age group.

Eight per cent (12/150) of the women reported that they were current IDUs. Their mean age was 25.8 years compared with 32.2 years among non-IDU prostitutes (P < 0.05). They were less likely than non-IDU women to undergo testing for HIV, hepatitis B or hepatitis C (P < 0.01) and had higher seropositivity rates for these infections than prostitutes who were not IDUs (Table 2).

Seventy-nine per cent (119/150) of the prostitutes were tested for HIV, of whom 2.5% (3/119) were positive. Eighty-three per cent (124/150) of women were tested for all hepatitis B markers of whom 4.8% (6/124) showed evidence of current or previous infection. The 118 women who tested negative were offered hepatitis B vaccinations, of whom 25% (30/124) have completed the course of three injections and 20% (23/118) have had 2 injections. Sixty-six per cent (99/150) of the prostitutes were tested for antibody to hepatitis C by enzyme immunoassay test; 8.1% (8/99) were positive.

Almost all the women reported using condoms on all occasions with clients as a means of protection against STD, but the majority also reported burst condoms on at least one or more occasions. Data on contraceptive methods used with their non-client partner were available for 128 women; 19.5% (25/128) used condoms as their method of contraception (Figure 1). The most frequent method used was the oral contraceptive pill. Almost 16% (20/128) used no contraception.

Data on cervical cytology were available for 65% (97/150) of women. Of these, 45% (44/97) had a normal smear result, 35% (34/97) had an inflammatory smear and 19% (18/97) had evidence of dysplasia, which was moderate or severe in 8.

Table 1. Age of women, smoking and marital separation or divorce

<table>
<thead>
<tr>
<th>Age group</th>
<th>No. smokers n=140 (%)</th>
<th>No. separated/divorced n=137 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20 years</td>
<td>7/10 (70)</td>
<td>0/10 (0)</td>
</tr>
<tr>
<td>20-29 years</td>
<td>41/53 (77)</td>
<td>3/51 (6)</td>
</tr>
<tr>
<td>30-39 years</td>
<td>40/45 (89)</td>
<td>15/45 (33)</td>
</tr>
<tr>
<td>40-49 years</td>
<td>22/26 (85)</td>
<td>11/24 (46)</td>
</tr>
<tr>
<td>Over 50 years</td>
<td>6/6 (100)</td>
<td>3/7 (43)</td>
</tr>
</tbody>
</table>

Table 2. Risk profile of prostitutes for HIV, hepatitis B and C

<table>
<thead>
<tr>
<th></th>
<th>Non-IDU prostitutes</th>
<th>IDU prostitutes</th>
<th>Relative risk (CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td>1/113 (0.9%)</td>
<td>2/6 (33.3%)</td>
<td>37.7 (4.0-359.4)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>3/119 (2.5%)</td>
<td>3/5 (60.0%)</td>
<td>15.25 (3.64-63.82)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>3/93 (3.2%)</td>
<td>5/6 (83.3%)</td>
<td>26.67 (8.28-85.91)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

IDU=injecting drug user
CI=confidence interval

women. Screening for STD was available for 3 of the 6 years of the study. Of 94 women offered screening, 85 availed of the service representing 57% (85/150) of all the prostitutes; 25% (21/85) had documented evidence of infection. Of these, the most frequently encountered infections were genital warts (8/21), Chlamydia trachomatis (4/21) and Trichomonas vaginalis (3/21). Women with STD were significantly more likely to have an inflammatory or dysplastic smear than those with a normal STD screening result (P <0.05) and the relationship was strongest for genital warts (P <0.05).

DISCUSSION

This is the largest study of prostitutes in Ireland to date. Although we do not know how representative the women are of all prostitutes working in Dublin, it nevertheless represents a sizeable sample of the estimated 600 prostitutes in the city. The clinic is located in the south side of the city and may not be readily accessible to some prostitutes working elsewhere. The women in this study are mostly ‘street workers’ and generally ensure anonymity by giving their working name rather than their real names, even though confidentiality is assured. They are encouraged to return to the

Figure 1. Methods of contraception with partner. IUCD: intrauterine contraceptive device, OCP=oral contraceptive pill
The proportion of prostitutes who are IDUs varies between countries and between cities within the same countries\(^1\). In our study, the proportion who were IDUs is similar to that found by Ward et al. in their study of prostitutes in London\(^1\), but much lower than that of a drop-in centre for prostitutes in Glasgow\(^14\) where more than three-quarters were IDUs. Prostitutes who are IDUs appear to be a different population from those who are non-IDUs; many IDU prostitutes work primarily to fund their habit and would give up prostitution if they were not using drugs\(^8\). The women who were IDUs in our study were younger and had the least favourable health risk profile among all the prostitutes. Some were reluctant or unable to undergo testing at the clinic, others may have been tested elsewhere. It is more difficult to attract women who are IDUs to the clinic even though they may be in greater need of the services provided. It is therefore likely that the proportion of IDU prostitutes attending our clinic is an underestimate of the overall proportion working in prostitution in Dublin.

The prevalence of HIV infection among all prostitutes who were tested is lower than the 5% prevalence reported from a multicentre study of prostitutes in European countries\(^1\), and slightly higher than the 0.9% among London prostitutes reported by Ward et al.\(^1\). In our study, the use of injectable drugs by the prostitute was the main determinant of HIV, hepatitis B and C status. However, there is evidence that the seroprevalence of HIV and hepatitis B among IDUs is decreasing in recent years due to safer needle sharing practices. A sample of male and female IDUs attending the National Drug Treatment Centre in Dublin during the same time period as this study showed much lower prevalences of HIV, hepatitis B and hepatitis C at 1.4%, 1.4% and 62.9% respectively (personal communication). Thus, as only half of the 12 IDU prostitutes in our study were tested for these infections, the proportions of IDU prostitutes who are seropositive must be interpreted with caution as numbers are small and the declining seroprevalence among IDUs generally may not yet be reflected among IDU prostitutes.

STD screening at the clinic was not undertaken during 3 of the 6 years of the study while the service and facilities were being reviewed and reorganized. Notwithstanding this, a quarter of the women screened were positive for STD, which is broadly similar to prostitutes elsewhere\(^16-18\). The majority of prostitutes in our study reported episodes of condom failure with clients. A higher than expected prevalence of STD could be explained by inaccurate reporting of condom use\(^3\) or a risk of STD associated with prostitutes’ noncommercial sexual relationships\(^4\).

In conclusion, this study has found that targeting specific health services for this group of women has been of value in the Irish context. It allows monitoring of health risk behaviours and provides a means for improving the health of the women themselves and consequently the health of the public.

References
6. Rhodes T, Stimson G, Quirk A. Sex, drugs, intervention, and research: from the individual to the social. Subst Use Misuse 1996; 31(3): 375-407
15 European Working Group on HIV infection in female prostitutes. HIV infection in European female sex workers: epidemiological link with the use of petroleum based lubricant. *AIDS* 1993;7(3):401-8

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