A health needs assessment of street-based prostitutes: cross-sectional survey
Nikki Jeal and Chris Salisbury

Abstract

Background Research with prostitutes has tended to concentrate on sexual health rather than wider health issues, and has failed to differentiate between street-based prostitutes and off-street workers. Little is known about the general health and background of street-based sex workers, the group likely to have the greatest needs.

Methods An interview-based survey amongst street-based sex workers in central Bristol was employed.

Results Seventy-one women were interviewed. All reported chronic health problems. Sexually transmitted infections were between nine and 60 times more common than the general population. Many women (44 per cent; n/H11005 31) had experienced sexual abuse and 38 per cent (n/H11005 27) had been in care. Women who had experienced care left school earlier (14.1 versus 15.5 years; p < 0.0001 unpaired t-test) and were less likely to have their own children at home (1/18 (5.5 per cent) versus 8/25 (32 per cent); p = 0.06) The stillbirth rate was 50/1000. Most (97 per cent; n = 69) had been offered more money for unprotected sex. Half (51 per cent; n = 36) had unprotected sex in the last week. All had drug or alcohol dependency problems. In the last week, 22 per cent (n = 9/41) of injecting drug users had shared needles and 59 per cent (n = 24/41) had shared injecting equipment, despite most (96 per cent; n = 39/41) knowing the risks.

Conclusions The health and social inequalities experienced by this group are much worse than any group highlighted in the ‘Tackling Health Inequalities Review 2002’ and appear cross generational. In neither that report nor the Sexual Health and HIV Strategy report are sex workers identified as a particularly high priority group. There is the potential for their needs to continue to be unmet.

Keywords: prostitution, substance abuse, intravenous, sexually transmitted diseases

Introduction

Sex work and drug use are inextricably linked and both are associated with considerable risks to health.1 Commercial sex workers (prostitutes) are a socially marginalized group with poor standards of health.2 Their use of routine healthcare is often limited3 and though outreach services are better used by this group, they often only attend when their health curtails their ability to sell sex.4 They are at increased risk of acquisition of sexually transmitted infections.5 This risk is reduced by condom use6–9 but condom use is inconsistent6,9 and clients encourage unprotected sex10,11 by offering more money. Drug use12 carries health risks which are further increased with sharing of injecting equipment.13 Violence, particularly toward street-based sex workers,14 is common and a further source of morbidity. Entry into prostitution may occur at a young age,15 increasing total exposure to these risks.

This combination of high morbidity, lack of appropriate care and the need to sell sex to gain money for drugs can result in serious health problems. Previous studies of sex workers have concentrated on work-related issues and sexual health rather than their wider health. They have often included women working in the street along with women working in off-street settings such as massage parlours, but these two groups may have different characteristics and health problems. There is no quantitative study of the background, health and health-risk-taking behaviour of street-based sex workers.

This study is an in-depth exploration of the health and social circumstances of a population of street-based women, directly comparing their health where possible with that of the general population. It is important to consider all areas of their lives that may have relevance to their health and expectation of health.

Methods

At the time of interview the population of female street-based sex workers in central Bristol was approximately 120 women. This was estimated through contact with One25, a charity that supports women in prostitution, and through questioning the women themselves. The charity operates an outreach van up to...
midnight and a drop-in service during afternoons. Recruitment was through One25, by kerb crawling and by word of mouth. Interviews were conducted over a 1 month period to minimize population changes over time. A semi-structured questionnaire was used that contained both validated and previously unused questions. Interviews took place between 09:00 and 23:00. Women were paid £20 each for childcare and travelling expenses. Ethical approval was obtained from the local research ethics committee. The inclusion criteria were women aged 16 years and over who were sex workers with their main place of work on the streets in central Bristol. This excluded those working in off-street settings and women visiting from other cities.

Results

Seventy-two women were invited to participate and all but one agreed.

Demography/social background

The mean age of the women was 27.9 years (range 17–43) with a median of 27 years. The majority was of Caucasian ethnicity (87 per cent; n = 62) or one of the black ethnic groups (10 per cent; n = 7). There were no Chinese or Asian women seen.

Partner

Nearly half of the women had a partner (49 per cent; n = 35) with 3 per cent (n = 2) currently married and living with their partner. Half of the women with partners (49 per cent; n = 17/35) said their partners influenced the amount they worked, either through violence or manipulation. None of the women with partners were trying to conceive but 71 per cent (n = 25/35) did not use any contraception with their partner.

Childhood

Nearly two-thirds (62 per cent; n = 44) said they had experienced either physical, sexual or emotional abuse as a child. Of those abused, 70 per cent (n = 31/44) had experienced sexual abuse. This represented 44 per cent of the women interviewed. Only 48 per cent (15/31) of those sexually abused were taken into care. More than a third of those interviewed had been in care (38 per cent; n = 27). Nearly one-third (32 per cent; n = 23) left full-time education aged 14 years or younger, with women who had been in care leaving at a significantly younger age (mean age 14.1 versus 15.5 years; p < 0.0001 unpaired t-test).

Children

Almost two-thirds (65 per cent; n = 46) of the women had children. Of the 43 women with children aged 16 years or less, only 21 per cent (n = 9) had one or more of their children living at home with them. Of the 80 children aged 16 years or less, nearly two-thirds (62 per cent; n = 50) were living with family members, either their father (n = 25) or another relative (n = 25). There were 11 per cent (n = 9/80) in fostered care or fostered and 10 per cent (n = 8/80) had been adopted. Of the women who had children, those who had been in care as a child were significantly less likely to have their own children living at home with them compared with women who had not been in care (1/18 versus 8/25; p = 0.06, Fisher’s exact test).

Homelessness

Two-thirds of the women (66 per cent; n = 47) were homeless or under threat of homelessness. They stayed in bed and breakfast accommodation, on floors, in homeless hostels, in crack houses, slept rough, or with clients.

General health

All reported a chronic illness in response to the relevant question from the General Household Survey (GHS) (Table 1), though only 59 per cent (n = 42) were receiving treatment for that illness. Half (n = 35) had a concurrent acute illness with only 17 per cent (n = 6) receiving treatment for that. In response to a further question from the GHS, only 7 per cent (n = 5) of the women felt that their health was good and 54 per cent (n = 38) felt it was poor.

Table 1 Chronic illness

<table>
<thead>
<tr>
<th>Chronic illness experienced</th>
<th>Frequency</th>
<th>Per cent (n = 71) (CI)</th>
<th>GHS19 2000* (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longstanding illness/disability</td>
<td>71</td>
<td>100 (95–100)</td>
<td>22</td>
</tr>
<tr>
<td>Anxiety/depression</td>
<td>48</td>
<td>68 (55–78)</td>
<td>2</td>
</tr>
<tr>
<td>Vein abscess</td>
<td>33</td>
<td>46 (35–59)</td>
<td>0.7</td>
</tr>
<tr>
<td>Recurrent chest infection/bronchitis</td>
<td>27</td>
<td>38 (27–50)</td>
<td>5.3</td>
</tr>
<tr>
<td>Asthma</td>
<td>20</td>
<td>28 (18–40)</td>
<td>0.7</td>
</tr>
<tr>
<td>Dermatoses</td>
<td>15</td>
<td>21 (12–32)</td>
<td>1.1</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>13</td>
<td>18 (10–29)</td>
<td>5.8</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>10</td>
<td>14 (7–24)</td>
<td>0.3</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>7</td>
<td>13 (4–19)</td>
<td>7 (12–16)</td>
</tr>
<tr>
<td>Deep vein thrombosis</td>
<td>5</td>
<td>7 (12–16)</td>
<td>5 (17–39)</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>5</td>
<td>7 (12–16)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>27 (17–39)</td>
<td></td>
</tr>
</tbody>
</table>

*Women aged 16–44 years, so direct comparison to study population.
Pregnancy

The 59 women who had been pregnant had a total of 97 pregnancies continuing beyond 24 weeks (one woman was in her third trimester at the time of interview). Five had ended in stillbirth, giving a rate of 50/1000 live and still births. There had been one cot death at 7 weeks postpartum.

Over half of the women had worked in prostitution prior to carrying their last child (54 per cent; n = 55/1005) (this information was unavailable for one woman) and they were significantly more likely to use drugs during pregnancy compared with women who had never sold sex (20/25 versus 5/21; Yates corrected chi-square 12.35, df = 1; p = 0.0004).

During pregnancy, opiates were used by 32 per cent (n = 15/47) and crack cocaine by 28 per cent (n = 13/47) of women. Nearly a quarter of babies (23 per cent; n = 10/44) (two women were unable to recall birth weight and one was still pregnant) weighed <2500 g at delivery. The babies of working women tended to be lighter though this did not reach statistical significance (p = 0.17 Mann–Whitney test). Most babies (54 per cent; n = 25/46) had postnatal problems with 15 per cent (n = 7) experiencing drug withdrawal. One-quarter of the live births went to the special care baby unit.

Entry into prostitution

The mean age of starting selling sex on the streets was 20.8 years (range 12–40) with a median of 19 years. Just over half of the group (51 per cent; n = 36) started work to fund a drug habit, whilst 20 per cent (n = 13) were forced into prostitution by a partner.

Working practices

The most frequent service provided was a combination of oral and vaginal intercourse. Only 21 per cent (n = 15) provided anal intercourse. The mean number of clients per week per woman was 25 (range 2–84) with a median of 21 clients.

All of the women said they used condoms for clients. This was the only contraception for 89 per cent (n = 72). Nearly all (97 per cent; n = 69) said they had been offered more money for unprotected penetrative intercourse by clients. Most (72 per cent; n = 51) said they would never consider such an offer.

The women were asked about sexual activity in the last week. Sex included vaginal intercourse, oral sex and anal sex. All men were included, both clients and private relationships. New men were those with whom they had had no previous sexual contact (Table 2). More than half the women had unprotected sexual contact in the last week.

Violence

Assault, including rape and use of weapons such as guns, machetes and chainsaws, had been experienced by 73 per cent (n = 52).

Sexual health

Less than half (46 per cent; n = 33) of the women had been screened for a sexually transmitted infection (STI) in the last 12 months and nearly 20 per cent (n = 13) had never been screened. Almost two-thirds (61 per cent; n = 43) had been treated at some time for an STI (Table 3). Cervical smears were up-to-date in

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Sexual activity in previous week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual activity in last 7 days</td>
<td>Mean (CI)</td>
</tr>
<tr>
<td>No. of times had sex</td>
<td>22.3 (18.6–26.0)</td>
</tr>
<tr>
<td>No. of different men</td>
<td>19.5 (16.1–23.0)</td>
</tr>
<tr>
<td>No. of new men</td>
<td>12.9 (9.9–16.0)</td>
</tr>
</tbody>
</table>

*Women aged 16–44 years, so direct comparison to study population.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Experience of STIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition for which ever received treatment</td>
<td>Frequency (n = 71)</td>
</tr>
<tr>
<td>Vaginal candidiasis</td>
<td>28</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>19</td>
</tr>
<tr>
<td>Gonorrhoea</td>
<td>12</td>
</tr>
<tr>
<td>Infestations</td>
<td>12</td>
</tr>
<tr>
<td>Genital warts</td>
<td>11</td>
</tr>
<tr>
<td>Bacterial vaginosis</td>
<td>8</td>
</tr>
<tr>
<td>Genital herpes</td>
<td>5</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>4</td>
</tr>
<tr>
<td>Syphilis</td>
<td>4</td>
</tr>
<tr>
<td>Trichomonas vaginalis</td>
<td>3</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>2</td>
</tr>
</tbody>
</table>

*Women aged 16–44 years, so direct comparison to study population.
only 38 per cent (n = 25/65) of those women covered by the national screening guidelines.

**Drug use**

All of the women interviewed had current or recent drug or alcohol dependency problems. At the time of interview, 96 per cent (n = 68) had current problems and 60 per cent of those (n = 41/68) were injecting drugs. Those injecting drugs saw significantly more clients per week (median 23 versus 18; p = 0.03 Mann–Whitney) and had significantly more episodes of sexual intercourse (median 21 versus 16; p = 0.003 Mann–Whitney) than non-injecting drug users.

Heroin was used by 83 per cent (n = 59) of the women, with crack cocaine used in addition by 81 per cent (n = 55/68). Alcohol was the main dependence for one woman.

The average number of times an injecting user injected on a typical day was 4.2 (median = 4; range 1–16.) Nearly one-quarter (22 per cent; n = 9/41) of injecting drug users shared needles in the last 4 weeks despite 96 per cent (n = 39/41) considering sharing needles as a risk. Injecting equipment was shared by 59 per cent (n = 24/41) in the same period despite 96 per cent (n = 39/41) considering this a risk. Most (93 per cent; n = 38/41) used a needle exchange.

The average weekly expenditure on illicit drugs and/or alcohol amongst the current drug users was £755 (range £30–£2900) with a median of £675. Per week those injecting drugs spent significantly more money on drugs (median £700 versus £450, p = 0.004 Mann–Whitney test) than non-injecting drug users.

**Discussion**

**Summary of main findings**

The population of street-based sex workers in this study was experiencing very poor general and sexual health. High-risk behaviours continue despite the women knowing of the associated risks. Intravenous drug users emerged as at particular risk.

Dysfunctional childhood experiences were common as was sexual abuse. Experience of the care system was associated with negative outcomes for school attendance and future family life.

The rate of stillbirth was high, as was the incidence of low birth weight, particularly in those who sold sex during pregnancy. Their experience of disruption and adverse conditions, since childhood, appears to be repeated in their poor pregnancy outcomes and the number of their own children who do not live with them. Comparison of these results with similar results for the general population demonstrates the severity of the health inequalities experienced by this group (see Table 4).

**Limitations of the study**

The number of women in this study is relatively small and the lack of recruitment between midnight and 09:00 may expose the study to bias. However, it is likely that more than half the total population of street-based sex workers in the central area of Bristol were interviewed. The outreach and drop-in facilities of One25 ensure contact with most if not all of the street women. The study also used varied recruiting methods and interviewed over a short time period to obtain a sample that was representative of the study population. Those interviewed are likely to represent the less chaotic women and the results may be an underestimate of the morbidity for the whole population. The fact that the data is self-reported may also make it open to bias.

This study is an in-depth profile of the health of a population of street-based sex workers. It describes the social factors which are associated with their poor health and high level of risk taking, and also some of the consequences for their own children. These include a repeated cycle of early separation of children from their mothers and placement in care. Previous quantitative studies have tended to have a narrower remit of research. Details of pregnancy and outcomes for the children of sex workers have not previously been included, and the degree of health inequality in this group has not previously been described. A comprehensive profile of this type illustrates that the excessive needs of this vulnerable population are not being met by current services.

The Tackling Health Inequalities Review 200218 is aimed at tackling health inequalities and has highlighted ‘the cutting nature of the determinants of health inequalities’ and that ‘health inequalities cross the generations’. Its findings are consistent with those of this study. However, the study popu-
lation have far greater health inequalities than any of the groups highlighted in the report. Both this report and the Sexual Health and HIV Strategy\(^\text{19}\) give little emphasis to sex workers, particularly street women. Whilst they may be included in some of the targeted groups, they are a difficult to reach group with a unique combination of wide-ranging needs. Unless specifically targeted, they may fall through the net and their needs will continue to be unmet. A knowledge of the patterns of use and types of current services accessed by this group is needed, as are their views, to assist in the planning of appropriate targeted services.

In provision of health services, a multi-agency integrated approach is crucial, and any service intended to improve their health must consider the reasons for their behaviour and tolerance of their abusive existence. Their poor health is a direct result of their lifestyle. The study highlights the central role of drug misuse in the lives and health of street-based sex workers.

Prostitution is an outcome not a choice. Targeted intervention is needed to prevent repetition of the cycle, improving not just the health of these women, but the future for their children.

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**References**


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