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The association between abuse in childhood and STD/HIV risk behaviours in female genitourinary (GU) clinic attendees

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Objectives: To compare and contrast women with a history of child abuse with those who have no history of child abuse on STI/HIV risk behaviours and safer sex beliefs in an inner city UK sample.

Design: Cross sectional sample survey.

Methods: Routine female clinic attendees were invited to complete an anonymous self report questionnaire which included background information, sexual and drug risk behaviour, self reported sexually transmitted infections (STIs), psychological distress (Hospital and Anxiety Depression Scale; HADS), Sexual Risk Cognitions Questionnaire (SRCQ), and history of child sexual, physical, and emotional abuse.

Results: 137 (45%) of 303 women reported a history of child abuse; all three forms of child abuse—sexual (26%), physical (20%), and emotional (27%) abuse—overlapped. The majority of women reported one sexual partner in the past month, and the majority did not use condoms. Women reporting a history of child abuse were more likely to have had previous STIs ($p=0.007$) and to have had more than one STI ($p=0.04$) compared with women who had not experienced child abuse. Injecting drug use and commercial sex work were of low prevalence across the whole sample and no group differences were found. Women reporting a history of child abuse had higher HADS anxiety ($p=0.03$) compared with women with no history of child abuse. Confidence in using condoms with a sexual partner was not related to child abuse. Women with a history of child abuse reported significantly higher frequency of thoughts reflecting anticipated negative reactions from partners to suggesting condom use ($p=0.02$) and judging a partner's risk by their appearance ($p=0.05$) compared with women with no history of child abuse.

Conclusions: Comparable rates of child sexual abuse with US studies were found in this UK inner city population of women attending sexual health services. Women who had experienced child abuse were more likely to report ever having had an STI and having had more than one STI. Complex psychological and social factors contribute to difficulties for women in negotiating safer sex including emotional distress, abuse histories, and anticipating a negative reaction from partners. Multifaceted prevention models are needed.

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Introduction

In the 1990s growing attention had been directed towards the increasing rate of sexually transmitted infections (STIs) including HIV in vulnerable populations. One such population identified includes survivors of childhood sexual trauma. The trauma associated with unresolved sexual abuse has been put forward as one possible contributor towards the failure of prevention strategies in certain groups.¹ Prevalence estimates of child sexual abuse vary across studies depending on the definition used. However, consistent reports suggest that approximately 25% of adult women have a history of child sexual abuse.² There is considerable evidence documenting the negative long term medical, behavioural, and psychological consequences of abuse in childhood.^{3–4} Particular consequences of child sexual abuse which led researchers to explore a connection between child sexual abuse and HIV risk behaviour include sexual “compulsivity” and substance misuse.¹ A connection between child sexual abuse and HIV risk behaviour has been reported in several populations in the United

States including heterosexual men and women,⁵ African-American women,⁶ homosexual and bisexual men,⁷ and adolescents.^{8,9} Factors found to be associated with this connection include having multiple sexual partners, engaging in sex work, and injecting drug use.^{5–10} Few studies have examined STIs as an outcome of risk behaviour.

While most studies in this area lack theoretical underpinning, social cognitive approaches and the “theory of gender and power” have been applied to account for the link between child sexual abuse and risk behaviour.^{6–10} However, the majority of the published studies have not considered psychosocial processes such as thoughts and beliefs that might be related to STD/HIV risk behaviours (that is, sexual risk cognitions) among women who have experienced abuse. Current psychological distress has also been demonstrated to impact on safer sex behaviours,¹¹ but has not been examined specifically in relation to a history of child sexual abuse and risk behaviour. It has also been noted that sexual abuse tends to be examined “in a relative vacuum”¹² and that

researchers have tended to overlook other forms of maltreatment that a woman might have experienced in childhood despite evidence that physical, emotional, and sexual abuse frequently occur together.¹² It can not be assumed that the cultural and social diversity of the above US populations reflect those found in the United Kingdom. To date, no systematic study examining the connection between child sexual abuse and STD/HIV risk has been conducted in the United Kingdom. The present study aims to consider whether the same association may be found in a “comparable” UK sample of heterosexual women—that is, women recruited from genitourinary clinic attendees. In addition, this study aims to examine current psychological distress and cognitions associated with unsafe sex in relation to risk and a history of child sexual, physical, and emotional abuse.

Methods

STUDY POPULATION AND PROCEDURE

Participants were recruited from females attending a “walk-in” sexual health clinic. The clinic is located at a large east London hospital and serves an ethnically diverse inner city population. Following arrival and registration at the clinic, participants were given written information about the study and asked to complete an anonymous questionnaire. Those who agreed to participate completed the questionnaires while waiting for appointments. All questionnaires were self administered and were returned to the researcher in a sealed envelope to ensure anonymity. The study was approved by the local ethics committee.

Of 399 women who were approached, 317 agreed to participate; a response rate of 79.5%. Completed questionnaires were excluded if participants reported that their sexual partners were other women or there were missing data ($n = 14$). This resulted in a sample of 303 women.

MEASURES

A self report questionnaire collected information about the following areas: *Demographic information*—age, ethnicity, sexual orientation, educational level, employment history, relationship status and current living circumstances. *History of abuse*—The definition of sexual abuse was adapted from previous work. Participants were described as having experienced child sexual abuse if they reported any unwanted sexual experiences that occurred before the age of 18. Participants were also asked whether or not this involved penetrative assault.¹³ Physical abuse was defined in accordance with Straus’s Severe Violence Index¹⁴ which includes being punched, kicked, or hit with an implement. The definition of emotional abuse was adapted from previous work proposing categories of behaviour leading to emotional abuse (for example, rejecting, isolating, terrorising) and specified frequent occurrence of such acts.¹⁵ *STI and HIV risk behaviours*—This section asked about recent and lifetime history of injecting drug use and sex work. Participants were asked to indicate which of a list of STIs they had experi-

enced. Participants were asked to state the number of occasions of penetrative sex, unprotected penetrative sex, and number of partners in the past month. This time frame was chosen as shorter reporting periods tend to be associated with more accurate recall.¹⁶ *Condom use efficacy*—Levels of confidence in using condoms with sexual partner(s) were rated on a Likert scale from 0 (not at all confident) to 6 (totally confident).

In addition, the questionnaire contained two standardised measures.

- (1) The Sexual Risk Cognitions Questionnaire (SRCQ).¹⁷ The items on this questionnaire consist of beliefs and self statements related to not using a condom. The first section of the questionnaire (22 items, SRCQ-22) is designed for all respondents irrespective of sex, sexual orientation, and serostatus, while the remaining 13 items are worded to apply to heterosexual women. Items are rated on a 5 point Likert scale from “never had thought” to “very frequently had thought.” The authors report high levels of internal consistency (0.89 to 0.91 Cronbach’s alpha). Validity of the 22 item scale has been examined in a sample of homosexual men and total scores were significantly correlated with frequency of unsafe sex and number of sexual partners in the previous month.¹⁷
- (2) The Hospital Anxiety and Depression Scale (HADS).¹⁸ The HADS was developed as a screening device for detecting anxiety and depression in hospital patients. It is a 14 item self report questionnaire consisting of two subscales for anxiety and depression. Respondents are required to rate each item on a 4 point scale (0–3) according to how they have been feeling over the past week. The HAD scale excludes somatic items and is, therefore, particularly applicable to non-psychiatric hospital clinic populations. The internal consistency of the anxiety scale is reported to range from +0.76 to +0.41, and the depression scale to range from +0.60 to +0.30. The reliability of the scale for assessing the severity of anxiety is $r=0.74$ and for depression, $r=0.70$.¹⁸

STATISTICAL ANALYSIS

Data were analysed with SPSS 10.0 for Windows. In univariate analysis, comparisons were made using Pearson’s χ^2 . Multivariate logistic regression analysis was used to take into account risk factors related to whether or not woman reported a history of child abuse. Means were compared using the Student’s t test. Correlations were conducted using Pearson’s r and Spearman’s rho coefficients. A principal components analysis was conducted on the SRCQ to examine any emergent factors in this scale.

Results

PREVALENCE OF CHILD ABUSE

A total of 137/303 (45.2%; missing data=18) women reported any history of (sexual, physical, or emotional) abuse; 78 (26.3%) women

Figure 1 Relation between types of child abuse reported.

reported child sexual abuse (CSA), and of these, 38/72 (48.7%; missing data, six) reported penetrative assault; 61 (20.1%) women reported child physical abuse (CPA), and 83 (27.4%) women reported having experienced child emotional abuse (CEA). The relation between the different forms of abuse reported is illustrated in figure 1. Pearson's χ^2 analysis found significant associations between all three forms of abuse (CSA + CPA: $\chi^2=25.7$, $p<0.001$; CSA + CEA: $\chi^2=13.9$, $p<0.001$;

CPA + CEA: $\chi^2=69.5$, $p<0.001$). Therefore, all subsequent analyses are on a combined measure including women who had experienced any child abuse ($n=137$) compared with those who had experienced no child abuse ($n=148$).

DEMOGRAPHIC PROFILE

Table 1 describes the demographic characteristics of participants and compares women with no child abuse with those who had experienced child abuse. The age range of the sample was 14–48 years with a mean age of 26 (SD=7) years. The sample was ethnically diverse, with 47% of participants from ethnic minorities. Using Pearson's χ analysis, no significant association was found between the groups on demographic variables except for length of current relation ($\chi^2=7.92$, $p=0.05$).

CHILD ABUSE, RISK BEHAVIOUR, AND HISTORY OF STIs

The results of univariate analysis comparing women reporting a history of child abuse with women reporting no history of child abuse on risk behaviours (number of sexual partners, condom use, injecting drug use (IDU), and commercial sex work (CSW)) and history of STIs are presented in table 2. The majority of women reported one sexual partner in the past month, and the majority did not use condoms. IDU and CSW were of very low prevalence across the whole sample and no group differences were found. Women with a history of child abuse were more likely to report a previous history of STIs ($\chi^2=7.30$, $p=0.007$) and were more likely to have had more than one STI ($\chi^2=4.03$, $p=0.04$), compared with those reporting no history of child abuse. Self reported STIs in the total sample included chlamydia ($n=64$), genital warts ($n=46$), bacterial vaginosis ($n=34$), genital herpes ($n=29$), gonorrhoea ($n=24$), and trichomonas ($n=14$).

In order to control for the contribution of independent risk factor variables (number of sexual partners, condom use, IDU, CSW, and history of STIs), these were entered in a multivariate logistic regression analysis with a history of abuse/no abuse as the dependent variable. Analysis revealed that women with no history of STIs were less likely to have experienced abuse in childhood (OR=0.56; 95% confidence interval (CI)=0.32–0.96; $p=0.03$). No other risk variables were associated with whether or not women reported a history of child abuse.

CURRENT PSYCHOLOGICAL DISTRESS, CHILD ABUSE, AND RISK FACTORS

Women with a history of child abuse reported significantly higher anxiety scores (HADS-A) ($t=2.15$, $df=283$, $p=0.03$) compared with those with no history of child abuse. Depression scores (HADS-D) were not significantly different between the two groups ($t=0.61$, $df=283$, $p=0.54$). Of the total sample, 110 (36%) women reported being "totally confident" in being able to use condoms with their partner(s), while 31 (10%) women reported being "not at all confident." Mean condom use

Table 1 Demographic characteristics by abuse category

Description	No abuse (n=148)		Child abuse (n=137)		p Value
	No	%	No	%	
Age (years):					
14–24	58	39.5	69	50.4	0.28
25–29	42	28.6	29	21.2	
30–34	25	17	22	16.1	
35+	22	15	17	12.4	
Ethnicity:					
White European	85	57.8	73	53.3	0.53
Black Caribbean/UK/other	32	21.8	38	27.7	
Black African	11	7.5	6	4.4	
Asian	10	6.8	8	5.8	
Other	9	6.1	12	8.8	
Employment:					
Employed	90	61.2	81	59.6	0.63
Unemployed	20	13.6	24	17.6	
Student	37	25.2	31	22.8	
Relationship status:					
Single	24	16.2	31	22.6	0.08
In a relationship (cohabiting)	60	40.5	39	28.5	
In a relationship (not cohabiting)	64	43.2	67	48.9	
Length of relationship (months):					
0–12	52	43	49	46.7	0.05
13–24	22	18.2	14	13.3	
25–36	10	8.3	20	19	
37+	37	30.6	22	21	

Table 2 Prevalence of HIV/STI risk factors among women reporting a history of child abuse and those reporting no abuse

Risk factor	No abuse		Child abuse		p Value
	No	%	No	%	
Sex partners in past month:					
One	125	93.3	104	87.4	0.11
More than one	9	6.7	15	12.6	
Condom use:					
Never	77	62.6	66	61.1	0.46
Sometimes/always	46	37.4	42	38.9	
Injecting drug use:					
Never	146	98.6	135	98.5	0.66
Ever	2	1.4	2	1.5	
Commercial sex work:					
Never	143	98.6	133	97.1	0.32
Ever	2	1.4	4	2.9	
Self reported STIs:					
Never	76	53.5	50	37.3	0.007
Ever	66	46.5	84	62.7	
Number of STIs:					
One	46	69.7	45	53.6	0.04
More than one	20	30.3	39	46.4	

Table 3 Prevalent sexual risk cognitions

<i>I do not use a condom because:</i>	<i>No</i>	<i>%*</i>
I enjoy sex more without a condom	119	47
Sex is more exciting without a condom	85	34
I use contraception, so I don't need to use a condom	65	26
I've already had unsafe sex with him, what's the point of using a condom this time	60	24
My regular partner only has unsafe sex with me so I'm safe	56	23

*% Women in sample responding *frequently* or *very frequently* to each item.

efficacy was four (SD=2.1, range 0–6). There was no significant difference in condom use efficacy between women with or without a history of child abuse. A number of correlations were performed between anxiety and depression scores, condom use efficacy, and sexual risk variables consisting of continuous data (that is, percentage of time using condoms with partners, frequency of unprotected intercourse, and number of sexual partners in past month). Condom use efficacy was significantly negatively correlated with anxiety ($\rho=-0.21$, $p<0.001$) and depression scores ($\rho=-0.19$, $p<0.01$); thus, low confidence in using a condom was associated with higher scores on anxiety and depression. Condom use efficacy was also significantly positively correlated with percentage of time using condom with partners ($\rho=0.25$, $p<0.001$); thus, higher confidence in using a condom was associated with greater use.

SEXUAL RISK BELIEFS

The most frequently endorsed sexual risk cognitions (that is, where women had indicated they *frequently* or *very frequently* had thought “I do not use a condom because”) are presented in table 3.

A principal components analysis of the SRCQ items resulted in three factors which accounted for 42.4% of the variance in scoring. These factors reflected: (1) anticipated negative partner reactions (for example, “He may reject me if I suggest using a condom”); (2) hedonic expectations (for example, “Sex is more exciting without a condom”); and (3) judging by appearances (for example, “He looks so healthy he can't possibly be HIV positive”). Women with a history of child abuse reported significantly higher frequencies of cognitions reflecting factors (1) anticipated negative partner reactions ($t=2.27$, $df=213$, $p=0.02$), and (3) judging by appearances ($t=1.99$, $df=225$, $p=0.05$) compared with women with no history of child abuse. The factor reflecting anticipated negative partner reactions was also significantly correlated with higher levels of anxiety ($r=0.23$; $p<0.001$) and depression scores ($r=0.25$, $p<0.001$). This factor was also significantly negatively associated with condom use efficacy ($r=-0.19$, $p<0.01$); thus, more frequent negative anticipated partner reactions were associated with lower levels of confidence in using condoms.

Discussion

A high rate of child sexual abuse was found in this female STD clinic population which resembles that reported in US studies.^{5–10} Women also reported high rates of child physical and emotional abuse which for the majority

overlapped with a history of child sexual abuse. This suggests the importance of screening for all three forms of abuse in examining potential associations with risk behaviours.

In the present study a history of child abuse was strongly associated with ever having had an STI by self report. Furthermore, a higher number of previous STIs were found in women who had experienced child abuse compared with women with no such history. Previous studies have reported an association between past sexual abuse and multiple sexual partners.^{5–10} The present study did not find this association. This finding may be limited by the fact that women were only asked about number of sexual partners in the past month. The present study found no association between history of abuse and current condom use. This is consistent with findings from US studies.^{5–10} However, condom use was low across the whole sample and this may reflect that the majority of women perceive themselves to be at low risk for STIs and HIV. Previous research indicates that condoms are seen primarily by young heterosexual women as a form of contraception and, as relations become established, are abandoned in favour of oral contraception.¹⁹ The majority of women in the present study were in a relationship, although for most these relationships were relatively new. Prevalent sexual risk cognitions also suggest that women using another form of contraception do not perceive the need for condoms.

In contrast with US studies there was a very low prevalence of injecting drug use and commercial sex work reported by this sample, and these were not associated with a history of abuse. It is unlikely that this reflects under-reporting of stigmatised behaviours since the data were collected by means of anonymous questionnaires, while the US studies used face to face interviews. The use of anonymous questionnaires has been found to result in higher reporting of socially unacceptable behaviours related to HIV risk compared with interviews.²⁰

Analysis of sexual risk cognitions suggest that women who have experienced child abuse anticipate more negative reactions from partners to the suggestion of condom use and that they were more likely to judge a partner's risk of transmitting infection based on his appearance. It may be hypothesised that this pattern of thinking may partially account for the association between child abuse and STIs. Anticipated negative partner reactions were also associated with lower confidence in being able to use condoms with partners, and with psychological distress. It is possible to speculate that women who have experienced abuse may be engaged in an ongoing pattern of non-supportive relationships within which to negotiate safer sex. Anxiety and depression associated with negative partner reactions may further compromise the ability of women to negotiate a safe sexual relationship. While most women in the study were not using condoms, the strong association between abuse and STIs suggests the need to investigate whether the partners of these women may have higher rates

of untreated STIs. Previous research has suggested that women who had experienced child sexual abuse were likely to report having sex with partners they felt to be at risk of HIV infection.²¹ In order to account for the finding of the association between a history of child abuse and STIs, future studies should investigate characteristics of women's sexual partners and specific sexual practices.

A number of limitations with this study should be considered. Firstly, as is common to many studies of child abuse, a broad definition of sexual abuse was used in this study. Most studies define child sexual abuse primarily by age rather than by the nature of the sexual activity.²² While this may have produced a heterogeneous sample and obscure group differences, it has also been argued that researchers who restrict their definition of child sexual abuse to more intrusive forms of abuse might report more extreme outcomes than those employing broad definitions.²³ Nevertheless, it is notable that despite using a broad definition of child sexual abuse in this study, almost half of those reporting such abuse also indicated it had involved penetrative assault. This study examines a limited range of variables that may be related to abuse, risk behaviour, and STIs. Future studies should assess the impact of other variables such as use of alcohol and other substance misuse, age at first intercourse, self esteem, and current partner violence, which may prove to be relevant.

The results of this study suggest a number of implications for clinical practice and prevention programmes. Much of the emphasis in health promotion has been towards HIV prevention. The impact of these programmes in the United Kingdom may be limited if populations do not consider themselves to be at risk. Risk reduction strategies might therefore be more effective if targeted towards individuals who are contracting other STIs. Changing sexual behaviour is critical to controlling STIs but may also have the added benefit of reducing the steady rise of HIV in women. It will also be important for prevention programmes to consider the complex psychological and social factors contributing to difficulties for women in negotiating safer sex. These include emotional distress, abuse histories, and interpersonal relationships. Multifaceted prevention models and interventions are needed in the United Kingdom that incorporate social norms, sex inequalities, and interpersonal variables. An excellent recent example of this has been demonstrated in a randomised controlled trial of a behavioural intervention to prevent STIs among economically disadvantaged ethnic minority women in the United States.²⁴ Finally, a high rate of abuse has again been demonstrated in a female sexual health population. If the impact upon risk behaviour of such abuse is to be addressed in sexual health clinics it is important to provide easy access and referral to mental health services.

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