

Sexual violence against adult women primary care attenders in east London

Jeremy Coid, Ann Petruckevitch, Wai-Shan Chung, Jo Richardson, Stirling Moorey, Sarah Cotter and Gene S Feder

SUMMARY

Background: Sexual violence against women is common. The prevalence appears to be higher in north America than Europe. However, not all surveys have differentiated the experience of forced sex by a current or former partner. Few women are thought to report these experiences to their general practitioner (GP).

Aim: To measure the prevalence of rape, sexual assault, and forced sexual intercourse by a partner among women attending general practices, to test the association between these experiences of sexual violence and demographic factors, and to assess the acceptability to women of screening for sexual violence by GPs.

Design of study: Cross-sectional survey.

Method: A self-administered questionnaire survey of 1207 women aged over 15 years was carried out in 13 general practices in Hackney, east London.

Results: Eight per cent (95% confidence interval [CI] = 6.2 to 9.6) of women have experienced rape, 9% (95% CI = 7.0 to 10.6) another type of sexual assault, and 16% (95% CI = 13.6 to 18.1) forced sex by a partner in adulthood; 24% (95% CI = 21.2 to 26.5) have experienced one or more of these types of sexual violence. Experiences of sexual violence demonstrated high levels of lifetime co-occurrence. Women forced to have sex by partners experienced the most severe forms of domestic violence. One in five women would object to routine questioning about being raped and/or sexually assaulted, and one in nine about being forced to have sex by a partner.

Conclusion: Experiences of sexual violence are common in the lives of adult women in east London, and they represent a significant public health problem. Those women who have one experience appear to be at risk of being victims again. A substantial minority object to routine questions about sexual violence.

Keywords: sexual abuse; questionnaires; domestic violence.

Introduction

SEXUAL violence against women is common. Lifetime prevalence estimates from community surveys vary; for example, it is 17% for sexual assault among women in Los Angeles,¹ 18% for completed or attempted rape in the United States (US) National Survey,² and 39% for any sexual violence among Canadian women.³ Lower prevalences are reported in European surveys: 5% for sexual assault in Iceland,⁴ 4% for forced sex in Finland,⁵ and 6% for coerced sex and 16% for unwanted sexual contact in Great Britain.⁶ Lifetime prevalences are higher in surveys of women in primary care settings: 13% in Melbourne, Australia,⁷ and between 20–29% in three US sites.^{8–10} These findings reflect the increased likelihood of women who suffer from the physical and psychiatric sequelae of sexual violence consulting their general practitioner (GP).

Certain groups have an increased risk of experiencing sexual violence. This includes women students in north America,^{11–13} women entering the US armed forces,^{14–16} women who have been physically and sexually abused in childhood,¹⁷ and women experiencing domestic violence.¹⁸ Many women do not report these experiences to their families, friends, the police, or to healthcare professionals.^{11,19} Few GPs ask their patients about such experiences, and few women disclose them unprompted, either because they are too embarrassed, because the issue does not appear relevant to the consultation, or because the doctor does not ask.¹⁰

As part of a study of domestic violence and child abuse,^{17,20} we investigated whether sexual violence against women is common in a primary care population in east London, whether there are subgroups of women at higher risk, and whether questions about sexual violence from clinicians are acceptable to women. The analysis of sexual abuse had four specific objectives: first, to measure the prevalence in adulthood (16 years and above) of three forms of sexual violence, including rape, other sexual assault, and being forced against one's will to have sexual intercourse by a sexual partner; second, to examine whether the experience of being forced to have intercourse by a partner differentiates women from others who have experienced domestic violence; third, to test the associations between three experiences of sexual violence and demographic factors; and fourth, to explore women's attitudes to questioning about these experiences by GPs.

Method

Between January and December 1999 we surveyed adult female patients (16 years or over) in 13 general practices in Hackney, in east London, an area with substantial socioe-

J Coid, MD, professor of forensic psychiatry; A Petruckevitch, MSc, medical statistician; W-S Chung, MSc, research assistant, Forensic Psychiatry Research Unit, St. Bartholomew's Hospital, London. J Richardson, DCH, MRCP, research fellow; S Cotter, MSc, lecturer in medical statistics; G Feder, MD, FRCP, professor of primary care research and development, Centre for General Practice and Primary Care, Queen Mary's School of Medicine and Dentistry, London. S Moorey, FRCPsych, consultant psychiatrist in cognitive behaviour therapy, Cognitive Behaviour Therapy Unit, Maudsley Hospital, London.

Address for correspondence

Gene Feder, Institute of Community Health Sciences, Bart's and The London, Queen Mary's School of Medicine and Dentistry, Mile End Road, London E1 4NS. E-mail: g.s.feder@qmul.ac.uk

Submitted: 18 September 2002; Editor's response: 2 December 2002; final acceptance: 3 September 2003.

©British Journal of General Practice, 2003, 53, 858–862.

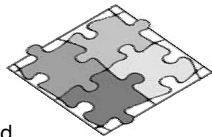
HOW THIS FITS IN

What do we know?

Sexual violence against women results in high levels of subsequent physical and psychiatric morbidity, but often women do not disclose these experiences to their friends, family, or general practitioner (GP). Definitions of sexual violence vary and prevalence differs between countries.

What does this paper add?

Sexual violence is common in the lives of adult women in east London, but seldom reported to GPs. One violent experience in adulthood is associated with an increased risk of experiencing another. A substantial minority of women would object to routine questioning about sexual violence by their doctors.



- Were you ever raped by anyone when you were aged 16 years or over?
- Were you ever sexually assaulted when you were 16 years or over, but not raped?
- Has your present partner or any previous partner forced you to have sex? (This question was included in a list of actual or threatened violent acts in the context of domestic violence.)

Box 1. Questions about sexual violence.

conomic deprivation. We have already published details of practice and patient recruitment.²⁰

A self-administered questionnaire was developed specifically for the purpose of the survey. The questionnaire included demographic details: age, marital status, ethnicity, country of birth, number of children, years of education, employment status, home ownership, and car ownership. Three forms of sexual violence in adulthood (aged 16 years and above) were measured, including rape, sexual assault, and forced sex by a partner or ex-partner (Box 1). The participants were also asked whether they had experienced unwanted sexual experiences or intercourse, or severe beating by a parent or carer, under the age of 16 years.

The survey aimed to recruit 5% of the total number of women registered at each practice, and this was achieved in 11 of the 13 practices. Women completed the survey questionnaire in the waiting room at each practice, and were requested not to take the questionnaire home. The study was approved by the East London & The City Health Authority Local Research Ethics Committee.

Statistical methods

The data were analysed using SAS statistical software, version 6.12. Logistic regression was used for univariate analysis to examine associations between the sexual violence outcomes and the demographic variables. Multivariate logistic analysis was carried out, and included all demographic variables significant at the 5% level to identify those variables significantly independently related to the outcomes of sexual violence. The adjusted models are given in the footnotes to Table 2.

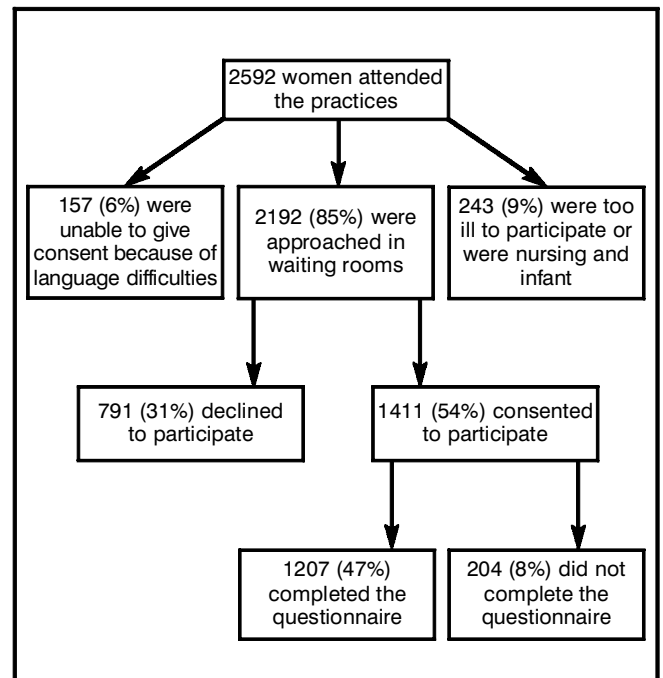


Figure 1. Recruitment of participants (all percentages are based on the denominator of the total number of women attending the practices while recruitment was taking place).

Results

A total of 1207 (55%) eligible women were finally recruited and completed the questionnaire. See Figure 1 for details of recruitment. We have already reported demographic details of the sample.²⁰

Prevalence of sexual violence

Seventy-nine (8%) participants reported that they had been raped, 87 (9%) that they had been sexually assaulted (but not raped), and 162 (16%) that they had been forced to have sex by a present or former partner at the age 16 years or above. A total of 232 (24%) had experienced one or more of these forms of sexual violence during their adult lifetime. Since forced sex by a present or former partner is defined as rape, the overall prevalence of rape in the sample rises to 21% (203).

Eighty-eight (9%) participants reported unwanted sexual intercourse in childhood; 116 (11%) reported unwanted sexual activities but not intercourse. Including unwanted sexual activities or intercourse before the age of 16 years raises the lifetime prevalence of all forms of sexual abuse in the sample to 32%.

Forced sex by partners

Among women reporting forced sex, only 15 (9%) did not report additional forms of physical violence from a current or former partner. In the analysis, women who had experienced domestic violence (defined as any violent physical contact) were divided into those who had been forced to have sex and those who had not. Those forced to have sex had experienced more extreme and extensive abuse (Table 1), but they were no more likely to have told their GP about

Table 1. Women experiencing domestic violence: association between forced sex and physical abuse from partner.

Physical abuse	OR for women reporting forced sex (95% CI)	P-value
Pushed, grabbed or shoved	0.48 (0.26 to 0.88)	0.016
Threatened with fist	1.72 (1.11 to 2.66)	0.015
Threatened with weapon	2.70 (1.74 to 4.20)	0.001
Threatened with being killed	3.21 (2.06 to 5.01)	0.001
Punched on the body	2.44 (1.60 to 3.72)	0.001
Punched in the face	2.35 (1.55 to 3.58)	0.001
Choked	3.09 (1.99 to 4.80)	0.001
Kicked while on the floor	2.81 (1.80 to 4.37)	0.001
Injured with a weapon	3.99 (2.31 to 6.92)	0.001
Strangled, burnt or attempted drowning	5.46 (3.08 to 9.65)	0.001
Other forms of physical violence	4.80 (3.07 to 7.50)	0.001
Suffered physical injuries from partner	2.39 (1.58 to 3.62)	0.001
Partner hit or injured children	3.61 (1.83 to 7.11)	0.001
Experienced violence during pregnancy	2.72 (1.62 to 4.58)	0.001

OR = odds ratio.

these experiences. Those who had been forced to have sex by a partner were more likely to report that they had experienced violence during a pregnancy and that their

partner had hit or injured their children.

Factors associated with sexual violence

Women reporting rape were not characterised by ethnicity, whether born in the United Kingdom (UK), whether they had children, number of years of education, employment, or whether they or their family owned their house or a car. Women aged 30–49 years were more likely to report the experience of rape, and married women were less likely to report the experience of rape than those in other marital status categories (Table 2). Similarly, women who reported having been sexually assaulted (but not raped) were more likely to be in the 30–39 years age group, divorced or separated, or single. Women who reported having been forced to have sexual intercourse by a partner were more likely to be non-white, divorced or separated, single, to have children, and to have less than 13 years of education.

The three forms of sexual violence were associated with each other: 41 (59%) women who reported having been raped also reported being sexually assaulted (but not raped), 38 (54%) women in the same subgroup reported being forced to have sex by a present or former partner, and 36 (46%) women who had reported sexual assault (but not

Table 2. Significant associations between assault types and demographic factors.

	Forced sex by partner		Rape		Sexual assault	
	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR
Age (years)		^a		^e		
19–29	1	1	1	1	1	1
30–39	1.57 (1.06 to 2.34)	1.51 (0.99 to 3.64)	1.72 (0.99 to 2.97)	2.10 (1.16 to 3.79)	1.64 (1.00 to 2.68)	1.77 (1.05 to 3.01)
40–49	1.43 (0.68 to 3.02)	1.65 (0.88 to 3.10)	2.15 (1.07 to 4.31)	2.45 (1.08 to 5.56)	1.10 (0.52 to 2.34)	1.16 (0.50 to 2.70)
>50	1.79 (1.05 to 3.06)	1.99 (0.86 to 4.56)	0.53 (0.12 to 2.33)	0.86 (0.18 to 4.01)	0.21 (0.03 to 1.54)	0.30 (0.4 to 2.37)
Marital status		^b		^f		^f
Married or widowed	1	1	1	1	1	1
Divorced or separated	4.50 (2.72 to 7.47)	4.27 (2.54 to 7.18)	3.46 (1.69 to 7.09)	2.86 (1.38 to 5.98)	4.54 (2.25 to 9.2)	4.27 (2.07 to 8.79)
Single	1.60 (1.1 to 2.51)	1.87 (1.20 to 2.91)	2.04 (1.12 to 3.75)	2.16 (1.13 to 4.10)	2.36 (1.28 to 4.36)	2.30 (1.23 to 4.32)
Other	1.37 (0.74 to 2.54)	1.62 (0.84 to 3.14)	2.96 (1.39 to 6.30)	3.30 (1.46 to 7.46)	4.55 (2.22 to 9.23)	4.45 (2.11 to 9.39)
Ethnicity		^c				
White	1	1				
Non-white	1.43 (1.01 to 2.01)	1.56 (1.09 to 2.23)				
Children		^d				
No	1	1				
Yes	1.74 (1.21 to 2.49)	1.78 (1.16 to 2.72)				
Education		^d				
>13 years	1	1				
<13 years	1.79 (1.23 to 2.58)	1.54 (1.03 to 2.29)				
Cohabiting		^d				
No	1	1				
Yes	0.57 (0.34 to 0.97)	0.57 (0.32 to 1.01)				
Forced sex						
Yes	-		1		1	
No			8.44 (5.08 to 14.0)		6.52 (3.99 to 10.6)	
Rape						
Yes	1		-		1	
No	8.44 (5.08 to 14.0)				30.0 (17.0 to 53.1)	
Sexual assault						
Yes	1		1		-	
No	6.52 (3.99 to 10.6)		30.0 (17.0 to 53.1)			

Adjusted models: ^amarital status and ethnicity; ^bage and ethnicity; ^cage and marital status; ^dage; marital status, and ethnicity; ^emarital status; ^fage. OR=odds ratio.

rape) had also been forced to have sex by a partner.

Attitudes to questioning

Only 12 (1%) women reported that they had ever been asked by their GP if they had been sexually assaulted. Eighteen per cent (175) did not agree that it would be 'alright' for their doctor to ask them about being sexually assaulted, 60% (591) responded positively, and 22% (215) were unsure. There were no significant differences in the acceptability of being asked between those who reported having been sexually assaulted and/or raped and those who did not.

Eleven (1%) women reported that they had ever been asked by their GP if they had been forced to have sex by a partner or ex-partner: 11% (114) reported that they would mind if asked, 71% (732) that they would not, and 18% (187) were unsure. Significantly more women who had been forced to have sex reported that they would mind (24 [16%] versus 80 [10%]), or were unsure (33 [22%] versus 146 [18%]) whether they would mind if asked by their GP, compared to those who did not report this experience ($\chi^2 = 7.44$, df [degrees of freedom] = 2, $P = 0.024$).

Discussion

Summary of main findings

Nearly one in four women reported experiencing sexual violence in adulthood, and this does not occur in isolation. Those who have experienced one form of sexual violence in adulthood are at high risk of experiencing another, as well as other forms of partner abuse. We have previously demonstrated that childhood sexual and physical abuse also increases these women's risk of re-victimisation in adulthood.¹⁷ Only age greater than 30 years and non-married status were associated with an increased risk of rape or sexual assault. Only 1% of women had been asked by their GP about sexual violence. However, almost one in five women objected to the idea of routine questioning on whether they had been raped or sexually assaulted. Although a lower proportion (one in nine) would object to routine questioning about being forced to have sex by a partner, the subgroup who had experienced this were more likely to object.

Strengths and limitations

The strengths of this study include its direct relevance to UK general practice, the recruitment of consecutive women, measurement of childhood and adult sexual abuse, measurement of a wide range of types of abuse within intimate relationships, and a large enough sample size to test associations between demographic factors and the risk of sexual violence. Limitations include the small number of questions on sexual violence and the low response rate for an epidemiological study. The questions about sexual violence did not specify the circumstances of these experiences or identify the relationship to the perpetrator, other than in the case of forced sex by a partner. It is not known whether the low response rate results in an over- or underestimation of prevalence. If there was a response bias in favour of women experiencing abuse completing the questionnaire, it is unlikely to be large enough to substantially alter the conclusions about the

extent of sexual abuse in this population.

Relation to other research

The prevalence of sexual violence (rape, sexual assault, forced sex by a partner) in adulthood in this primary care sample appeared higher than in other European surveys, but lower than in most north American community and primary care surveys. Study definitions of sexual violence and methods used to measure these experiences differ markedly.²³ The most commonly used category of 'sexual assault' usually includes rape, but may include a range of sexually abusive experiences in some surveys, some of which do not involve physical contact.²⁴ Methods of data collection have ranged from a limited number of questions, as in our survey, to detailed questioning of participants by trained researchers using structured instruments.^{25,26} It remains unclear whether women actually report more experiences of sexual violence when interviewed than when using a self-report questionnaire. Inclusion of childhood abuse experiences is an important source of heterogeneity between surveys. When childhood sexual abuse was added into the study, the lifetime experience of sexual abuse rose to 1 in 3 women attending primary care.

Inclusion of women who reported forced sex by a partner may have contributed to the higher prevalence of sexual violence in this sample than found in other studies. Forced sex by a partner may not be considered rape by all women, but it is a form of partner abuse,^{28,29} co-occurring in 33–46% of women who experience physical assault from their partners.¹⁸ Despite its frequency in violent relationships, rape by a partner is one of the least likely assaults to be reported to healthcare and other professionals.²⁹

Implications for future research

The association between forced sex and non-white ethnicity requires further research, using culturally sensitive measures in east London and other areas of the UK with south Asian and Afro-Caribbean communities, and large enough samples of ethnic minority participants to use classifications to test associations for specific communities. There are conflicting findings from research in north America as to whether acculturation influences violence within relationships, with little data on sexual violence.³³ Further research is required into the determinants of repeat victimisation and strategies to prevent its occurrence. Currently, there is insufficient evidence to recommend routine questioning about sexual violence in primary care settings. As we have argued in the context of partner abuse,³⁴ we need research on the effectiveness of interventions initiated in primary care following disclosure of sexual violence, as well as more detailed investigation of the acceptability of routine questioning, before recommending screening.

However, it is important for healthcare professionals to be aware of the impact of sexual violence on the lives of patients, to offer support and general advice, together with information about agencies that can provide help, and to be aware that these experiences may predispose to subsequent psychiatric and physical symptoms that the patients may not immediately associate with these

experiences.

References

1. Sorenson SB, Stein JA, Siegel JM, et al. The prevalence of adult sexual assault. The Los Angeles Epidemiological Catchment-Area Project. *Am J Epidemiol* 1987; **126**: 1154-1164.
2. Bachman R, Saltzman LE. Violence against women: estimates from the Redesignated Survey. *Justice Quarterly* 1993; **11**: 499-512.
3. Statistics Canada. *Violence against women — survey highlights and questionnaire package*. Canada: Statistics Canada, 1993.
4. Gislasen I. *Violence against women in Iceland*. Akureyri, Iceland: Office for Gender Equality, 1997.
5. Heiskanen M, Piispa M. *Faith, hope, battering — a survey of men's violence against women in Finland*. Tliopistopaino, Helsinki: Statistics Finland, 1998.
6. Percy A, Mayhew P. Estimating sexual victimisation in a national crime survey: a new approach. *Studies on Crime and Crime Prevention* 1997; **6**: 125-150.
7. Mazza D, Dennerstein L, Ryan V. Physical, sexual and emotional violence against women: a general practice-based prevalence study. *Med J Aust* 1996; **164**: 14-17.
8. Koss MP, Woodruff WJ, Koss PG. Relation of criminal victimization to health perceptions among women medical patients. *J Consult Clin Psychol* 1990; **51**: 147-152.
9. Walch AG, Broadhead WE. Prevalence of lifetime sexual victimization among female patients. *J Fam Pract* 1992; Nov: **35**(5): 511-516.
10. Walker E, Torkelson N, Katon WJ, Koss MP. The prevalence rate of sexual trauma in a primary care clinic. *J Am Board Fam Pract* 1993; **6**: 465-471.
11. Koss MP. Hidden rape: sexual aggression and victimization in a national sample of students in higher education. In: Burgess AW (ed). *Rape and sexual assault*. New York: Garland Publishing, 1988: 3-25.
12. Koss MP, Dinero TE. Discriminant analysis of risk factors for sexual victimization among a national sample of college women. *J Consult Clin Psychol* 1989; **57**: 242-250.
13. Mills CS, Granoff BJ. Date and acquaintance rape among a sample of college students. *Soc Work* 1992; **37**: 504-509.
14. Merrill LL, Newell CE, Milner JS, et al. Prevalence of paramilitary adult sexual victimization and aggression in a Navy recruit sample. *Mil Med* 1998; **163**: 209-212.
15. Merrill L, Newell L, Thomsen CE, et al. Childhood abuse and sexual revictimisation in a female Navy recruit sample. *J Trauma Stress* 1999; **12**: 211-225.
16. Martin L, Rosen LN, Durand DB, et al. Prevalence and timing of sexual assaults in a sample of male and female US Army soldiers. *Mil Med* 1998; **163**: 213-216.
17. Coid J, Petruckevitch A, Feder G, et al. Relation between childhood sexual and physical abuse and risk of revictimisation in women: a cross-sectional survey. *Lancet* 2001; **358**(9280): 450-454.
18. Frieze IH, Browne A. Violence in marriage. In: Ohlin L, Tonry M (eds). *Family violence*. Chicago: University of Chicago Press, 1989: 163-218.
19. Feldhaus KM, Houry D, Kaminsky R. Lifetime sexual assault prevalence rates in an emergency department population. *Ann Emerg Med* 2000; **36**: 23-27.
20. Richardson J, Coid J, Petruckevitch A, et al. Identifying domestic violence: a cross-sectional study in primary care. *BMJ* 2002; **324**: 274-277.
21. Zigmund AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand* 1983; **67**: 361-370.
22. Mayfield D, McLeod G, Hall P. The CAGE Questionnaire: validation of a new alcohol screening instrument. *Am J Psychiatry* 1974; **131**: 1121-1123.
23. Walby S, Myhill A. New survey methodologies in researching violence against women. *Br J Criminol* 2001; **41**: 502-522.
24. Briere J. Methodological issues in the study of sexual abuse effects. *J Consult Clin Psychol* 1992; **60**: 196-203.
25. Koss MP, Oros CJ. Sexual experiences survey: a research instrument investigating sexual aggression and victimization. *J Consult Clin Psychol* 1982; **50**: 455-457.
26. White JW, Humphrey JA. *Acquaintance rape: the hidden crime*. New York: John Wiley and Sons, 1991.
27. Koss MP, Gidycz CA. Sexual experiences survey: reliability and validity. *J Consult Clin Psychol* 1985; **53**: 422-423.
28. Stewart DE, Robinson GE. Violence against women. In: Oldham JM, Riba MB (eds). *Review of psychiatry*. Vol 14. Washington DC: American Psychiatric Press, 1995: 261-282.
29. American Medical Association on Scientific Affairs. Violence against women. *JAMA* 1992; **267**: 3184-3189.
30. Sanders B, Moore DL. Childhood maltreatment and date rape. *J Interpersonal Violence* 1999; **14**: 115-124.
31. Frieze IH. Investigating the causes and consequences of marital rape. *Signs* 1983; **8**: 532-553.
32. Russell DEH. *Rape in marriage*. Indianapolis: Indiana University Press, 1990.
33. West CM. Lifting the 'political gag order': breaking the silence around partner violence in ethnic minority families. In: Jasinski JL, Williams LM (eds). *Partner violence*. Thousand Oaks, CA: Sage, 1998: 184-209.
34. Ramsay J, Richardson J, Carter YH, et al. Should health professionals screen women for domestic violence? Systematic review. *BMJ* 2002; **325**: 314.

Acknowledgements

This study was supported by a grant from North Thames Research & Development. We thank the practices in east London that allowed us to recruit in their waiting rooms. The survey was piloted at Lower Clapton Group Practice, part of ELENoR (East London and Essex Network of Researchers). Anna Koenig contributed to data collection.