

TITLE: Characteristics of trafficked adults and children with severe mental illness: a historical cohort study

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ABSTRACT:

Objective: Human trafficking is the recruitment and movement of people, through means such as deception and coercion, for the purposes of exploitation. Using an innovative data resource, this study aimed to provide the first evidence on the characteristics and clinical outcomes of trafficked adults and children with severe mental illness.

Method: Historical cohort study of trafficked people in contact with secondary mental health services in South London, using a psychiatric case register recording comprehensive clinical information for over 165,000 patients. Free-text searches of clinical notes were used to identify trafficked patients. A matched cohort of non-trafficked adults was randomly generated. Data were extracted on socio-demographic characteristics, trafficking and abuse history, and clinical characteristics and outcomes.

Results: 133 trafficked patients, of whom 37 were younger than 18 years at first contact, were identified. 81% of adults (78/96) and 68% of children (25/37) were female. Among both adults and children, the most commonly recorded diagnoses were PTSD (27/96, 38.5% and 10/37, 27.0%, respectively) and depression (33/96, 34.4% and 10/37, 27.0%, respectively). Trafficked adults were significantly more likely to be compulsorily admitted than non-trafficked adults, ($p=0.002$) and had significantly longer duration of inpatient stays ($p=0.045$).

Conclusions: Mental health services are caring for trafficked people with a range of diagnoses; professionals need to be aware of indicators of possible trafficking and of how to respond appropriately. Evidence is needed on the effectiveness of interventions to improve outcomes for this vulnerable group.

BACKGROUND

Human trafficking is the recruitment and movement of people – most often through the use of deception, threat, coercion, or the abuse of vulnerability – for the purposes of exploitation (1). Although evidence on the mental health needs of trafficked people is limited, studies suggest a high prevalence of depression, anxiety, and post-traumatic stress disorder among trafficked men and women in contact with shelter services (2, 3). Risk of mental disorder in trafficked people may be increased by childhood sexual abuse, longer duration of exploitation, experiences of violence while trafficked, and poor post-trafficking social support (4, 5).

To our knowledge, there has been no previous research conducted with a clinical sample of trafficked people. Accordingly, very little is known about the socio-demographic and clinical characteristics of trafficked people who have severe mental illness. The primary objectives of this study were therefore to investigate the socio-demographic and clinical characteristics of trafficked people with severe mental illness. As a secondary objective we compared clinical outcomes of trafficked people with severe mental illness with matched non-trafficked patients.

2. METHODS

2.1 Study Design: Historical cohort study of trafficked and matched non-trafficked patients in contact with secondary mental health services.

2.2 Setting: The South London and Maudsley NHS Foundation Trust (SLaM) Biomedical Research Centre (BRC) Case Register provided data for this study. SLaM provides comprehensive secondary mental health services for four London boroughs (Croydon, Lambeth, Lewisham, and Southwark), an area with approximately 1.2 million residents. In 2006 SLaM established the Patient Journey System, an integrated electronic clinical record used across all SLaM services that provides a comprehensive record of all clinical information recorded during patients' contacts with SLaM, including socio-demographic information, dates and details of referrals, assessments, care plans, medication, and reviews. The Case Register Interactive (CRIS) database, established in 2008, allows for searching and retrieval of anonymised full patient records from the PJS for over 165,000 cases (6).

2.3 Study Population: (a) Exposed participants were SLaM patients whose care team had recorded concerns that they may have been trafficked. (b) Non-exposed participants were SLaM patients whose notes did not indicate that they had experienced human trafficking. Exposed and non-exposed participants were matched for gender, age (± 2 years), primary diagnosis, type of initial care (inpatient/non-inpatient), and year of most recent service contact. The cohort of trafficked patients was established by searching case notes and correspondence for all patients in contact with SLaM services between January 2006 and July 2012 (see supplementary data for the list of search terms used). One researcher assessed the eligibility of all returned records against the UN definition of human trafficking and against the study protocol; a second researcher (SO) independently assessed the eligibility of the first 10 records and an additional random 10% of records. The cohort of non-trafficked patients was randomly generated based on the matching criteria specified above.

2.4 Ethics: Ethics approval for the research use of CRIS-derived anonymised databases was granted by an independent Research Ethics Committee (Oxfordshire C, reference

08/H0606/71). An Oversight Committee reviews all applications to use CRIS, and gave approval for this study (11/025).

2.5 Variables:

Exposure – (1) Trafficking: Patients were categorised as having been trafficked if their clinical notes (free text) indicated that their care team believed that the patient had or may have been trafficked.

Measures - Unless otherwise specified, measures were recorded at entry into care. Terms used to search free text clinical notes are available from the authors on request.

(1) Socio-demographic characteristics: *Gender, age, marital status, and living alone status.* Gender is routinely recorded in PJS and available as a structured field within CRIS. Age was calculated by subtracting date of birth from the date of first contact with SLaM services (both routinely recorded in PJS). Information on marital status and who the patient was living with was extracted from structured fields within CRIS and from free text clinical notes.

(2) Abuse history: Patients were categorised as having experienced childhood abuse if their free text notes indicated physical or sexual abuse aged 17 years or younger, and as having experienced adulthood abuse if their notes indicated physical or sexual abuse aged 18 years or older.

(3) Psychiatric history: Patients were categorised as having a history of contact with secondary mental health services or of psychiatric inpatient admission if this was indicated in their free text clinical notes.

(4) Clinical characteristics: Primary ICD-10 diagnosis is routinely recorded in PJS and available as structured fields within CRIS (7). Where primary diagnosis changed over time, primary diagnosis at most recent contact with SLaM services was extracted. If no diagnosis was recorded (n=30), clinical records were independently reviewed by two consultant psychiatrists (LMH and MA) and a diagnosis assigned: initial inter-rater agreement was high (0.97) and in all cases consensus was reached on the diagnosis. Patients were categorised as having substance misuse problems if one or more of the following were recorded at entry into services: (i) primary or secondary diagnosis of substance misuse disorder; (ii) HONOS substance misuse subscale scored at 2 or higher (8); (iii) substance misuse was indicated on standard risk assessment; (iv) current or historical drug use or alcohol misuse was indicated in the clinical free text notes. HONOS measures the health and social functioning of people with severe mental illness, and examines behaviour, impairment, symptoms and social functioning on a five-point scale from 0 (no problem) to 4 (severe to very severe problem). Patients were categorised as having deliberately self harmed if their clinical free text notes indicated a deliberate self-harm event (including poisoning, cutting, head banging, hitting, burning, hanging, jumping from height or into traffic, drowning, and electrocution).

(5) Clinical outcomes: Patients were categorised as having had an adverse pathway into care if they were referred to SLaM via either the emergency department or the police service. Referral source is routinely recorded in PJS and is available as a structured field within CRIS. Inpatient admission and discharge dates are routinely recorded in PJS and are available as structured

fields within CRIS. These fields were used to identify inpatient admissions for patients under SLaM care and to calculate the total duration of inpatient admission. Dates of compulsory inpatient admission (i.e. detained under section 2 or section 3 of the Mental Health Act 1983) are also routinely recorded and available as structured fields within CRIS. Total duration of SLaM Care was calculated by subtracting the date of first referral from the date of final discharge, excluding any periods between referrals. When calculating duration of SLaM care and of inpatient admission, the upper date limit used was 24th January 2013.

2.6 Data Analysis:

Descriptive statistics (proportions for categorical; means and standard deviations for quantitative variables) were calculated to describe the socio-demographic and clinical characteristics of the sample.

Random intercepts logistic regression models with trafficking status (coded 1=trafficked, 0=non-trafficked) as the outcome variable were fitted to compare characteristics of trafficked and matched non-trafficked patients. Random intercept for the matching ID representing clusters of matched subjects was included in the logistic models to take account of possible correlation (non-independence) of matched subjects. History of contact with secondary mental health services, history of psychiatric inpatient admission, substance abuse problems, childhood abuse, adulthood abuse, and total duration of SLaM services were investigated as potential confounders and entered in the logistic regression models. Patterns of missing data were investigated, and missing data on covariates were assumed to be missing at random (MAR). The proportion of missing data ranged from 0% to 37.4% (with a mean of 6.6%). Inadequate handling of missing data is likely to lead to biased estimates of the effect of interest as well as its incorrect inferences (confidence intervals and significance tests). A recommended way to deal with such bias is to use multiple imputation under a plausible missing data mechanism (e.g. MAR). We used multiple imputation via chained equations (9), using the user contributed Stata command “ice” for imputing the missing data. We used logistic regression to identify predictors of missing data and the multiple imputation model included all variables used in the presented analysis and those that predicted missingness. Following the rule of thumb suggested by White et al., we created 58 imputed datasets, which is as high as the percentage of missing cases (10). The “mim” command in Stata was used to perform a combined analysis of the imputed datasets.

RESULTS

Searches of the CRIS database returned the records of 691 patients whose records included one or more trafficking search terms; 558 of these records were excluded from the study during screening (for example, because they related to traffic accidents, drug trafficking, or to patients’ interest in the issue of human trafficking). The final sample included 133 patients whose records indicated that they had experienced trafficking, including 37 patients aged less than 18 years at first contact.

As shown by Table 1, which describes the socio-demographic characteristics and trafficking experiences of the trafficked adults in contact with SLaM services, over four-fifths (81.3%) of the trafficked adult sample was female. Nearly half (47.9%) of the sample was aged between 18 and 25 years; the mean age was 26.7 (SD 6.8, range 18-49). Patients came from 33 countries; the most commonly recorded countries of origin were Nigeria (17.7%), China (9.3%), and

Uganda (7.3%). The majority of the trafficked adults had been trafficked for sexual exploitation (58.3%), with 10% trafficked for domestic servitude, and 8% trafficked for other forms of exploitation. However, no details were available regarding the type of exploitation suffered for one fifth (21.9%) of the trafficked adult sample. Data were also extracted on trafficked adults' experiences of abuse: a high prevalence of abuse was documented for physical and sexual abuse during childhood (30.2% and 27.1% respectively) and physical and sexual abuse during adulthood (41.7% and 44.8% respectively). The prevalence of post-trafficking abuse was also high: physical abuse was recorded in the clinical notes of 13.5% of the adult sample and sexual abuse in the notes of 10.4%; clinical notes indicated that half of all recorded post-trafficking abuse was perpetrated by an intimate partner.

Table 2 describes the socio-demographic characteristics and trafficking experiences of the trafficked children in contact with SLaM services. Two thirds of the trafficked children sample (67.6%) was female. Over half (54.1%) of the sample was aged between 16 and 17 years, with a mean age of 14.9 (SD 2.5, range 8-17). Patients came from 17 countries, the most commonly recorded countries of origin were Nigeria (18.9%) and Afghanistan (13.5%). Patients' notes indicated that one third had been trafficked for sexual exploitation and one third for domestic servitude or other forms of exploitation. However, for a further one third of the sample, no information was provided in the clinical notes regarding the type of exploitation suffered. Experiences of physical and sexual abuse were recorded for more than half of the sample (59.5% and 51.4% respectively), with over three quarters reporting either physical or sexual abuse.

The clinical characteristics of the trafficked adults in contact with SLaM services are shown in Table 3. The most common diagnoses were PTSD and severe stress and adjustment disorders (38.5%) and depression and affective disorders (34.4%), followed by schizophrenia. Fourteen patients (14.6%) were diagnosed with schizophrenia and related disorders: seven male patients (38.9% of the male adult sample) and seven female patients (9.0% of the female adult sample). A fifth (21.8%) of the adult sample had previous contact with secondary mental health services: eight prior to trafficking and thirteen since leaving the trafficking situation. Thirteen patients (13.6%) had previously been admitted as psychiatric inpatients: seven prior to trafficking and six since leaving the trafficking situation.

A third (32.3%) of the sample were referred to SLaM following contact with either the police or emergency department and were therefore categorised as having had adverse pathways into care. Over half (56.3%) of the sample were referred following contact with other part of the health service, including primary care (33.3%) and maternity services (8.3%). While under the care of SLaM services, one third of the adult sample (35.4%) were admitted as psychiatric inpatients, and a fifth (20.8%) had one or more admissions under the Mental Health Act. Clinical records indicated that one third of the sample had current or historic substance misuse problems and that one fifth had one or more deliberate self harm events while in contact with SLaM services. Three quarters of the sample were prescribed psychotropic medication while under the care of SLaM services, including antidepressants (56.3%), antipsychotics (45.8%), and hypnotics (42.7%).

Table 4 describes the clinical characteristics of the sample of trafficked children; to preserve anonymity results are not reported where cell counts are less than five. As with the adult

sample, the most common diagnoses were PTSD, severe stress and adjustment disorders (27%) and depression (27%). A fifth (21.6%) of the sample had previous contact with secondary mental health services, and just under a fifth (18.9%) had adverse pathways into care. While under the care of SLaM services, a fifth of the child sample (21.6%) were admitted as psychiatric inpatients.

Eighty-six of the patients who were aged 18 or older at first contact with SLaM services had a recorded ICD-10 psychiatric disorder and were matched to a randomly generated sample 287 of non-trafficked SLaM service user (a ratio of 1:3.4). Table 5 reports comparative analyses based on a random intercept logistic regression model from this matched sample. Trafficked patients were found to be significantly more likely to be compulsorily admitted as a psychiatric inpatient than non-trafficked patients; the association remained after adjusting for potential confounders (OR 7.86, 95% CI 2.18-26.6, $p=0.022$). Trafficked patients also had a significantly longer duration of inpatient stay compared to non-trafficked patients; the association remained in adjusted analyses (OR 1.48, 95% CI 1.01-2.15, $p=0.045$). No association was found between trafficking status and either adverse pathway into care or substance abuse problems.

DISCUSSION

Key findings

Research on the mental health needs of trafficked people is extremely limited (2). Using an innovative data resource, this study provides the first evidence on the socio-demographic and clinical characteristics and clinical outcomes of trafficked people with severe mental illness. The majority of our sample were female and had been trafficked for the purposes of sexual exploitation. Post-traumatic stress and depressive disorders were the most commonly recorded diagnoses, although psychoses were recorded for nearly fifteen percent of the adult sample. A fifth of the adults and the children in our study had a history of contact with secondary mental health services, including for several patients a history of inpatient admission that preceded the trafficking experience. To our knowledge, no previous study has reported on mental disorders experienced prior to trafficking. Although it is likely that mental disorders may be induced or exacerbated by traumatic experiences while trafficked (5), poor mental health may contribute to vulnerability to trafficking, including through social marginalization and economic insecurity. In addition to documenting a high prevalence of childhood and adulthood abuse among trafficked people with severe mental illness, the study found evidence of a continued vulnerability to abuse after escaping exploitation – including domestic violence and sexual assault. Ongoing interpersonal abuse may contribute to poor mental health (11), and should be taken into consideration during therapeutic interventions and during risk assessment and planning.

Trafficked and matched non-trafficked patients' routes into care appeared broadly similar, with one exception: maternity services emerged as a potentially important route into mental healthcare for female survivors of human trafficking. Once under the care of the mental health service, trafficked people were significantly more likely to be compulsorily admitted as psychiatric inpatients and had a significantly longer duration of inpatient admission. The reasons for trafficked patients' longer duration of inpatient stay are not clear, but may be due to their complex social needs. Addressing social and welfare needs (including meeting basic needs for food, clothing, and appropriate housing; supporting the regularisation of immigration status or return to the country of origin, and participation in criminal proceedings against their

traffickers; and providing opportunities for education, employment, vocational training, and social integration) is likely to be important in supporting the wellbeing and recovery of trafficked people (12).

Strengths and Limitations

Key strengths of this study are that several characteristics of interest (e.g. gender, age, ICD-10 diagnosis, referral source, inpatient admission, compulsory inpatient admission) could be derived from data that are routinely recorded within the CRIS system. Comprehensive searches of free text records were developed to identify patients whose records suggested they had experienced human trafficking, and to identify data for other measures of interest. Using the CRIS system we were also able to randomly generate a cohort of non-trafficked patients, matched on a number of key criteria.

Psychiatric case registers which include complete electronic health records as in this innovative register, are particularly valuable for studies of relatively rare exposures that do not appear with sufficient frequency in community studies: as such they offer exciting opportunities for future research on the mental health needs of trafficked people. They do, however, have important limitations, including in particular that much information of interest is not recorded in a standardised way (13). This study included patients whose care team had recorded concerns that they may have been trafficked. Clinical records varied in the level of detail regarding patients' experiences of human trafficking, and it was therefore not possible to use detailed screening procedures to assess eligibility. The eligibility of all returned records was reviewed against the United Nations (UN) definition of human trafficking and against the study protocol, with an independent review of a sample of the records by a second researcher. However, ambiguities in the United Nations definition of human trafficking means it can be challenging to draw a distinction between human trafficking and other forms of migration (e.g. smuggling) and of abuse (e.g. commercial sexual exploitation). This can translate into problems in deciding who should be included in studies of human trafficking, and is particularly challenging in the context of analysing clinical records. Patients inaccurately referred to as having experienced human trafficking by the professionals involved in their care may have been subsequently misclassified by the research team. It is also likely that a much larger number of patients who meet the UN definition of human trafficking have not been included in the study because the professionals involved in their care were unaware that they have experienced trafficking or had not documented their concerns appropriately. Mental health professionals' detection and recording of abuse has been found to be low: previous research suggests, for example, that mental health services detect between 10% and 30% of the domestic violence experienced by their patients (14).

The generalizability of the findings beyond the study setting (a large inner city mental health service) is unclear: further research in other settings is required. Not all trafficked people will require support from secondary mental health services, or indeed be able to access care. Nonetheless, this study provides urgently needed evidence on the needs of trafficked people with severe mental illness. To date, mental health research has been predominantly conducted with trafficked people who are receiving shelter or outreach support from civil society organisations (4, 5, 15). As shelter services are typically ill-equipped to support trafficked people with severe mental illness, the needs of these victims have not been previously described.

Implications

The commonest mental disorders in this sample – PTSD and depression – have also been described in previous research with trafficked people (5). Many of these patients may have complex PTSD, having experienced pre-trafficking abuse in addition to multiple severe traumas while trafficked; some will also be experiencing ongoing violence or threats of harm. Many will have complex social and legal needs, are likely to have lost contact with their family and be far from home, and to have been disadvantaged in terms of access to education, social activities, and physical healthcare. It is important that service providers are aware of broad strategies to support people with complex trauma, including the need for a phased approach (16, 17). The first phase of support will involve stabilisation, education about symptoms, emotional regulation, and compassion-focused approaches, and will probably also involve medication. The second phase will focus on reclaiming life, supporting the person to identify and activate behaviours and activities that matter to them. This may be adequate to enable recovery, but where this is not the case patients may wish to access evidence-based interventions for PTSD and depression, including Narrative Exposure Therapy (NET), Cognitive Behavioural Therapy (CBT) for depression, trauma-focused CBT (TF-CBT), and further medication (17-19). All are likely to need support from agencies with experience of helping survivors of human trafficking, and legal advice concerning, for example, decisions about regularising immigration status or returning to their home country, and participating in criminal proceedings against their traffickers.

Conclusions

Mental health services are caring for trafficked people with a range of diagnoses, including psychoses. Mental health professionals need to be aware of indicators of possible trafficking and of how to respond appropriately to suspicions or disclosures of this form of abuse. Treatment should follow clinical guidelines and take account of abuse suffered prior to, during, and following trafficking, drawing on models of good practice used with domestic violence, sexual violence, and torture. Evidence is now urgently needed on the effectiveness of mental health interventions for trafficked people.

AUTHORS' CONTRIBUTIONS

SO, MA, and LMH were responsible for designing the study. LMH provided overall supervision of the study. MB provided technical expertise and supervision. MK provided statistical expertise and supervision. SO led data extraction, data analysis, and conceived and wrote the first draft of the manuscript. MK, MB, MA, and LMH contributed to further drafts of the manuscript. All authors approved the final draft.

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Table 1: Socio-demographic and clinical characteristics of trafficked adults in contact with secondary mental health services (n=96)

	Total (n=96)
Gender	
- Female	78 (81.3)
- Male	18 (18.7)
Region of origin	
- Europe	24 (25.0)
- Africa	46 (47.9)
- Asia	16 (16.7)
- Other	8 (8.3)
- Unknown	2 (2.1)
Age	
- 18-25	46 (47.9)
- 26-33	36 (37.5)
- 34+	14 (14.6)
Relationship status	
- Single	86 (89.6)
- Partnered	7 (7.3)
- Unknown	3 (3.1)
Living arrangements	
- Alone	24 (25.0)
- With partner	6 (6.3)
- With children only	8 (8.3)
- With others	38 (39.6)
- Unknown	20 (20.8)
Children under 18	
- Yes	51 (53.1)
- No	33 (34.4)
- Unknown	12 (12.5)
Type of exploitation	
- Sexual	56 (58.3)
- Domestic servitude	10 (10.4)
- Other	8 (8.3)
- Unknown	21 (21.9)
Experiences of child abuse	
- Physical or sexual	41 (42.7)
- Physical	29 (30.2)
- Sexual	26 (27.1)
Experiences of adulthood abuse	
- Physical or sexual	58 (60.4)
- Physical	40 (41.7)
- Sexual	43 (44.8)

Table 2: Socio-demographic characteristics of trafficked children in contact with secondary mental health services (n=37)

	Total (n=37)
Gender	
- Female	25 (67.6)
- Male	12 (32.4)
Region of origin	
- Africa	20 (54.1)
- Asia	11 (29.7)
- Other	5 (13.5)
- Unknown	1 (2.7)
Age	
- 8-11	6 (16.2)
- 12-15	11 (29.7)
- 16-17	20 (54.1)
Living arrangements	
- Alone	7 (18.9)
- With foster parents	13 (35.1)
- With others	11 (29.7)
- Unknown	4 (10.8)
Type of exploitation	
- Sexual	12 (32.4)
- Domestic servitude or other labour	12 (32.4)
- Unknown	13 (35.1)
Experiences of child abuse	
- Physical or sexual	28 (75.7)
- Physical	22 (59.5)
- Sexual	19 (51.4)

Table 3: Clinical characteristics and illness severity of trafficked adults in contact with secondary mental health services (n=96)

	Total (n=96)
ICD-10 Primary diagnosis	
- Schizophrenia and related	14 (14.6)
- Affective disorders	33 (34.4)
- PTSD, severe stress, or adjustment disorder	27 (28.1)
- Other ¹	10 (10.4)
- No disorder	9 (9.4)
- Unknown	3 (3.1)
Psychotropic medication	
- Any	73 (76.0)
- Anticonvulsants/mood stabilisers	7 (7.3)
- Antidepressants	54 (56.3)
- Antipsychotics	44 (45.8)
- Benzodiazepines	28 (29.2)
- Hypnotics	41 (42.7)
Substance misuse problems	
- Yes	33 (34.4)
- No	31 (32.3)
- Unknown	32 (33.3)
History of contact with secondary mental health services	
- Yes	21 (21.8)
- No	61 (63.5)
- Unknown	14 (14.6)
History of inpatient admission	
- Yes	13 (13.6)
- No	70 (72.9)
- Unknown	13 (13.5)
Adverse pathway into care	
- Yes	31 (32.3)
- No	62 (64.6)
- Unknown	3 (3.1)
SLaM inpatient admission at first contact	
- Yes	15 (15.6)
- No	81 (84.4)
SLaM inpatient admission	
- Yes	34 (35.4)
- No	62 (64.6)
Mental Health Act S2/S3 admission	
- Yes	20 (20.8)
- No	76 (79.2)
Deliberate self harm while SLAM patient	
- Yes	21 (21.9)
- No	75 (78.1)

¹ Including substance misuse disorder

Table 4: Clinical characteristics and illness severity of trafficked children in contact with secondary mental health services (n=37)

	Total (n=37)
ICD-10 Diagnosis	
- Depression	10 (27.0)
- PTSD, severe stress, or adjustment disorder	10 (27.0)
- Other	11 (29.7)
- No disorder	6 (16.2)
Psychotropic medication	
- Any	15 (40.5)
- Antidepressants	13 (35.1)
- Antipsychotics	8 (21.6)
- Benzodiazepines/hypnotics	11 (29.7)
History of contact with secondary mental health services	
- Yes	8 (21.6)
- No	24 (64.9)
- Unknown	5 (13.5)
Adverse pathway into care	
- Yes	7 (18.9)
- No	30 (81.1)
SLaM inpatient admission	
- Yes	8 (21.6)
- No	29 (78.4)
Deliberate self harm while SLAM patient	
- Yes	10 (27.0)
- No	27 (73.0)

Table 5: Logistic regression comparing the clinical outcomes of trafficked and matched non-trafficked adults in contact with secondary mental health services (based on imputed data)¹.

	Unadjusted			Adjusted ²		
	Odds Ratio	95% CI	p	Odds Ratio	95% CI	p
Adverse pathway into care	0.79	0.46-1.34	0.377	0.91	0.4, 2.05	0.824
Inpatient admission under the Mental Health Act	5.47	2.14, 14.0	<0.001	7.61	2.18, 26.6	0.002
Substance abuse problems	0.75	0.39, 1.41	0.372	0.55	0.27, 1.17	0.122
Duration of inpatient admission	1.61	1.21, 2.14	0.001	1.48	1.01, 2.15	0.045

¹ Patients were matched for gender, age (+/- 2 years), diagnosis, inpatient admission at first contact, and year of most recent contact.

² Adjusted for prior contact with secondary mental health services, prior admission as a psychiatric inpatient, substance abuse problems, childhood abuse, adulthood abuse, and duration of contact with SLaM services.