Rationalising predictors of child sexual exploitation and sex-trading

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ABSTRACT

Although there is evidence for specific risk factors leading to child sexual exploitation and prostitution, these influences overlap and have rarely been examined concurrently. The present study examined case files for 175 young persons who attended a voluntary organization in Leicester, United Kingdom, which supports people who are sexually exploited or at risk of sexual exploitation. Based on the case files, the presence or absence of known risk factors for becoming a sex worker was coded. Data were analyzed using *t*-test, logistic regression, and smallest space analysis. Users of the voluntary organization's services who had been sexually exploited exhibited a significantly greater number of risk factors than service users who had not been victims of sexual exploitation. The logistic regression produced a significant model fit. However, of the 14 potential predictors – many of which were associated with each other – only four variables significantly predicted actual sexual exploitation: running away, poverty, drug and/or alcohol use, and having friends or family members in prostitution. Surprisingly, running away was found to significantly decrease the odds of becoming involved in sexual exploitation. Smallest space analysis of the data revealed 5 clusters of risk factors. Two of the clusters, which reflected a desperation and need construct and immature or out-of-control lifestyles, were significantly associated with sexual exploitation. Our research suggests that some risk factors (e.g. physical and emotional abuse, early delinquency, and homelessness) for becoming involved in sexual exploitation are common but are part of the problematic milieu of the individuals affected and not directly associated with sex trading itself. Our results also indicate that it is important to engage with the families and associates of young persons at risk of becoming (or remaining) a sex worker if one wants to reduce the numbers of persons who engage in this activity.

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Rationalizing Predictors of Child Sexual Exploitation and Sex-trading

Prostitution is a perennial concern to politicians, care agencies, and the public (Matthews, 2008), as is the involvement of children and adolescents in commercial sexual activity and exploitation (Sanders, O'Neill, & Pitcher, 2009). This study examines the concurrent risk factors associated with entry into child sexual exploitation (CSE) and trading sex in persons at risk of becoming street sex workers in a large British city. Understanding the risk factors increasing a young person's vulnerability to CSE is important for several reasons. First, it is helpful for identifying individuals who are engaging in or

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at risk of becoming involved in trading sex (Cusick, 2002; Department of Health, 2000). Second, research on risk factors can guide interventions and support for young people to prevent them from becoming involved in prostitution (Brawn & Roe-Sepowitz, 2008; Nadon, Koverola, & Schludermann, 1998; Reid, 2011). Third, awareness of these risk contexts can help identify men who are sexually exploitative (Lalor & McElvaney, 2010).

In the United Kingdom, *CSE* is defined for persons under 18 as involving "situations, contexts, and relationships where young people (or a third person or persons) receive 'something' (e.g. food, accommodation, drugs, alcohol, cigarettes, affection, gifts, money) as a result of them performing, and/or another or others performing on them, sexual activities" (HM Government, 2009, p. 9). For people aged 18 or older, the term *trading sex* is used. Trading sex includes prostitution and has been defined as performing sexual acts to acquire money, food, drugs, or lodging (Tyler, 2009).

Risk Factors for CSE and Trading Sex

Child Abuse and Neglect

One of the most widely studied risk factors for CSE is childhood abuse and neglect (Matthews, 2008). Longitudinal studies (Kaestle, 2012) and studies of both clinical (McClanahan, McClelland, Abram, & Teplin, 1999) and nonclinical samples (Lavoie, Thibodeau, Gagné, & Hébert, 2010) suggest a link between childhood sexual abuse and later involvement in CSE and trading sex. For example, Lavoie et al. (2010) found that among a large sample of Canadian high school students, sexual abuse during childhood significantly predicted trading sex once one statistically controlled for the effects of gender. Although other studies have failed to find a link between a history of sexual abuse and CSE/trading sex (e.g., Nadon et al., 1998), the general trend associates childhood sexual abuse with high-risk sexual behaviors and trading sex (Lalor & McElvaney, 2010).

Another form of abuse regarded as a potential precursor of CSE/trading sex is physical abuse during childhood. Several studies have found high rates of childhood physical abuse in samples of prostitutes (e.g., Greene, Ennett, & Ringwalt, 1999; Kramer & Berg, 2003; Roe-Sepowitz, Hickle, Loubert, & Egan, 2011). Assessing a sample of shelter and street youths, Greene and Colleagues (1999) reported that the odds for having traded sex were twice as high for individuals who had a history of physical abuse compared to those who had not been physically abused. High rates of physical abuse among people involved in CSE/trading sex do not necessarily imply that CSE/trading sex is common among the majority of those who are physically abused. However, an association of physical abuse with CSE/trading sex is evident. Childhood physical abuse should thus be considered as a potential antecedent to CSE/trading sex.

The possible impact of emotional abuse and neglect on CSE/trading sex has also been examined. Several studies have supported an association for this type of abuse with later engagement in high-risk sexual behaviors, including prostitution (e.g., Roe-Sepowitz et al., 2011; Widom & Ames, 1994). Widom and Ames (1994), for example, compared the criminal histories of a large sample of victims of childhood abuse to those of non-abused persons. They found people who experienced abuse or neglect as a child had an increased risk of being arrested for prostitution compared to non-abused/non-neglected individuals. Emotional abuse and neglect thus seems to influence later involvement in CSE/trading sex.

Family Dysfunction

Another risk factor for CSE/trading sex linked to abuse and neglect is family dysfunction. Family dysfunction and breakdown are common precursors of CSE/trading sex (Nadon et al., 1998; Pedersen & Hegna, 2003; Van Brunschot & Brannigan, 2002). Nadon et al. (1998) found that the prostitutes participating in their study had suffered from higher levels of family dysfunction than the control group of non-prostitutes. Pedersen and Hegna (2003), in a survey of all the 14–17 year olds attending public and private schools in Oslo, found parental break up was positively associated with selling sex for both genders. This shows the association of family dysfunction and family breakdown with CSE/trading sex is present in both prostitutes and community samples.

Education Difficulties

Educational difficulties are also associated with CSE/trading sex. Coy (2008), for example, conducted life-history interviews with sex workers who had been in care. She found that the women participating in the study had high rates of school exclusion. Other, more rigorous studies using control group designs also found persons involved in CSE/trading sex more likely to have discontinued their education than non-prostitutes (Lung, Lin, Lu, & Shu, 2004; Van Brunschot & Brannigan, 2002). There is thus evidence that discontinuous schooling is associated with an involvement in CSE/trading sex.

Poverty

Poverty is a common correlate of CSE/trading sex (Sanders et al., 2009). Limited education reduces chances to find employment. Qualitative analyses of interviews with prostitutes have shown that poverty and restricted options to earn money conventionally (or in sufficient amounts) are among the reasons that motivate some people to trade sex (Coy, 2008;

Williamson & Folaron, 2003). The association of poverty with CSE/trading sex seems to be particularly strong when coupled with drug addiction (Cusick, 2002; Erickson, Butters, McGillicuddy, & Hallgren, 2000).

Drug and Alcohol Use

The association of drug and alcohol use with CSE/trading sex is well-recognised (e.g., Nadon et al., 1998; Pedersen & Hegna, 2003; Potterat, Rothenberg, Muth, Darrow, & Phillips-Plummer, 1998). For example, Pedersen and Hegna's community study (2003) found drug use and alcohol problems positively related to selling sex. In another study, Potterat et al. (1998) compared current and former prostitutes to a comparison group of women who had never traded sex, finding a far greater proportion of prostitutes reported using drugs compared to control persons (86% vs. 23%). These methodologically strong studies indicate that substance use is a potentially important indicator that a person is involved (or at risk of being involved) in CSE/trading sex.

High rates of familial substance misuse among men and women involved in trading sex suggests drug and alcohol abuse by a family member might also be a risk factor for CSE/trading sex. Using a control-group design to assess the influence of various risk factors on involvement in CSE/trading sex, Van Brunschot and Brannigan (2002) found prostitutes in their sample almost 5 times as likely as comparison participants to report parental substance misuse. However, when a logistic regression was performed (which assesses the relative importance of a variable in the context of other factors), the effect of parental drug and alcohol abuse was nonsignificant. Evidence regarding the role of familial substance abuse as a risk factor for CSE/trading sex is thus inconsistent. It may be that parental substance abuse plays a limited role as a risk factor for CSE/trading sex, reflecting non-specific social problems. However, in practice, familial substance misuse links with CSE/trading sex precursors such as childhood neglect (Dunn et al., 2002).

Engagement with Child Protective Services or Foster Care

Several of the aforementioned factors, such as familial substance misuse or abuse and neglect of a child may lead to the child being placed in the care of local authorities (e.g., child protection services) or with foster parents. Being in care is said to be one of the most powerful predictors for CSE/trading sex (Cusick, 2002). Interviews with women who trade sex find a disproportionate number of them having been in local authority or foster care (Sanders, 2001), and a large proportion become involved in CSE despite being in such care (Coy, 2008; Sanders, 2001).

Friends or Family Members Involved in CSE/Trading Sex

There are several explanations for the association between a child being in care and involvement in CSE. Firstly, the reason for which a child was placed in care, such as familial abuse, may be inherently related to CSE/trading sex. Secondly, other "looked after" youths might introduce a young person into CSE/trading sex (Cusick, 2002; Sanders, 2001). Research suggests introduction by a peer is a very common way of becoming involved in CSE/trading sex (Sanders, 2001; Saphira & Herbert, 2004). This is congruent with the finding that having friends or family members who trade sex is a risk factor for becoming involved in CSE/trading sex (Tyler, 2009; Tyler, Hoyt, & Whitbeck, 2000; Williamson & Folaron, 2003).

Running Away

Many of the foregoing problems, including being in care or living in an abusive family environment might motivate an adolescent to run away. This, in turn, potentially puts the young person in a situation which makes them vulnerable to CSE. Running away from home or care has been found strongly associated with involvement in CSE/trading sex (e.g., Kaestle, 2012; Nadon et al., 1998; Van Brunschot & Brannigan, 2002). For example, Van Brunschot and Brannigan (2002) found that a greater proportion of prostitutes report having run away compared to a non-prostitute control group. Running away thus seems to constitute a potential precursor of CSE/trading sex.

Homelessness

A potential consequence of running away is homelessness or living in temporary accommodation. Homelessness has been consistently found related to CSE/trading sex (e.g., Kaestle, 2012; Nadon et al., 1998). Kaestle (2012), for example, found that in a nationally representative sample of adolescents in the US, homelessness significantly predicted involvement in CSE/trading sex. Being homeless can thus be considered an important risk factor for involvement in sex work.

Delinquency

CSE/trading sex has also been associated with delinquency (Greene et al., 1999; Kaestle, 2012; Pedersen & Hegna, 2003). A large-scale longitudinal study by Kaestle (2012) found shoplifting significantly predicted involvement in CSE/trading sex among young people in the United States. Similarly, Pedersen and Hegna (2003) reported that in a sample of Norwegian

adolescents, conduct problems – including delinquency – were positively related to selling sex. Engaging in delinquent activities other than trading sex and using drugs can thus be seen as another indicator of involvement in CSE/trading sex.

Sexual Activity

Finally, a number of variables related to a young person's sexual activity have been found to be associated with CSE/trading sex. For example, casual sex and having multiple sex partners has been related to CSE/trading sex in studies of both clinical (e.g., homeless and runaway adolescents; Tyler et al., 2000) and nonclinical samples (e.g., Edwards, Iritani, & Hallfors, 2006; Lavoie et al., 2010). Having sexual intercourse at an early age has also been found to be a predictor of involvement in CSE/trading sex (Pedersen & Hegna, 2003; Van Brunschot & Brannigan, 2002). The UK Department of Health (2000) also cautions that relationships with older persons might be a precursor of involvement in CSE/trading sex. Casual sex, having multiple sex partners, a low intercourse debut age, and sexual relationships with older males can thus be seen as possible precursors of CSE/trading sex.

Purpose of the Study

All these predictors are evidenced, credible risk factors for CSE/trading sex. However, they are also all plausible predictors and outcomes for a variety of other antisocial behaviors. There is, therefore, a need to separate out the parallel risks and identify those factors more central to CSE/trading sex to enable a greater focus on more specific predictors of the behavior. The current study uses multivariate methods to untangle the known overlapping associations with CSE/trading sex described in the academic literature among a large cohort of young persons attending a voluntary organization that helps people involved in or at risk of becoming involved in CSE/trading sex. We note that the previous academic literature has rarely considered the different predictors and associations simultaneously. By statistically addressing the generality of these different social problems, we propose that it is possible to more clearly identify risk factors for CSE/trading sex and trajectories into street prostitution. Thus, this study provides guidance on where to direct resources and interventions.

Method

This project was an in-house audit of previously collated data for a voluntary organization that provides care for street sex workers and young people at risk of sexual exploitation. As part of the audit, a literature search was conducted to identify variables previously found to be possible risk factors for becoming involved in CSE/trading sex. As detailed in the introduction, 14 risk factor categories were identified: childhood sexual abuse, childhood physical abuse by the parents, childhood emotional abuse and neglect, family dysfunction or family breakdown, placement in local authority or foster care, friends or family members involved in CSE/trading sex, discontinuous schooling, poverty/debts, drug and/or alcohol use by the service user, drug and/or alcohol use by a family member, running away, homelessness or living in temporary accommodation, delinquency, and concerns about sexual activity. The latter term has four possible interpretations: having multiple sex partners, casual sex, associating with older persons, and a low debut age for sexual intercourse. If any of these constructs were present in the individual record, the construct was coded as present.

The young people's department of the organization works with young people under the age of 26 who are sexually exploited or at risk of CSE/trading sex and is part of a privately funded drop-in and outreach center for street prostitutes in the city of Leicester in the United Kingdom. All active and archived case files of the department were coded by the first author. For each case, it was noted whether the individual files listed each of the 14 risk factors (*present* [1] or *not present* [0]). If no information was available for a given risk factor, it was coded as *not present*. The files included official reports (e.g. school reports), self-reports of the service user, social work meeting minutes, and notes of the care workers' meetings and conversations with the service user and the police. A risk factor was also coded as *present* if staff of the department had evidence of its presence (e.g., if members of the outreach team had seen a service user in company with a person known to trade sex, the at-risk indicator "friends or family members involved in CSE/trading sex" was coded as *present*).

Additionally, the service users' gender and age at the point of data collection was recorded. It was also coded whether a service user specifically disclosed being involved in CSE/trading sex. In cases in which a young person was involved, it was also noted who had introduced him/her into CSE/trading sex. Each service user was assigned a participant code to guarantee that the data could not be traced back to the individual service user by anyone but the first author.

To make sure that all risk factors known to be present in the service users were included in the analyses, the coding of risk factors was validated by personnel of the Young People's Department. The coding system and procedure was explained to the social workers and social work students who had personally worked with the service users. They were sometimes able to provide additional information on cases which had not been recorded in the files. The validation procedure also provided an opportunity to remove ambiguity. For example, if a court case was mentioned in a file, it could be clarified if a service user was involved in it as a victim, as a defendant, or as a witness.

The full sample comprised 175 cases, of which 131 were active (i.e., still engaging with the care workers). The vast majority of the service users were female ($n = 164$, 93.7%). The cases were not analyzed for males and females separately, because research indicates that the factors associated with CSE/trading sex are similar for both sexes (Edwards et al., 2006; Weitzer, 2009). Moreover, as only 6.29% of the cohort was male, there was a much skewed gender ratio. At the time of

Table 1

Percentage of service users exhibiting each studied risk factor for CSE/trading sex ($n = 175$).

Risk factor	(%)
Concerns about sexual activity	84.57
Drug and/or alcohol use by the service user	70.86
Running away	64.00
Family dysfunction or family breakdown	63.43
Discontinuous schooling	36.57
Placement in local authority or foster care	36.00
Delinquency	34.86
Friends/family members involved in CSE/trading sex	25.71
Homelessness or living in temporary accommodation	25.14
Poverty/debts	24.57
Childhood emotional abuse and neglect	22.29
Drug and/or alcohol use by a family member	18.86
Childhood physical abuse by the parents	16.57
Childhood sexual abuse	10.86

data collection, participants were between 12 and 25 years old, with a mean age of 17.3 years ($SD = 2.56$). The project was regarded as an internal audit of a service by the hosting agency, and as such was not deemed to require ethical permission from the Department of Psychology.

Results

Prevalence rates of the different risk factors in the cohort are shown in Table 1. Each risk factor was present in at least 19 young people. The most common risk factor category was "concerns about sexual activity," which was present in 148 (84.6%) of the service users. The number of risk factors per person ranged from 0 to 13. On average, service users exhibited 5.34 risk indicators ($SD = 3.03$). In 51 cases (29.14%), the service users had disclosed that they were or had been involved in CSE/trading sex. Young people who were or had been sexually exploited exhibited significantly more risk factors per person ($M = 6.35$, $SD = 3.58$) than persons who did not disclose sexual exploitation ($M = 4.93$, $SD = 2.69$), $t(173) = 2.87$, $p < .01$.

In 16 of the 51 cases in which involvement in CSE/trading sex was known, information was available on who had introduced a young person into selling sex. In 10 of these cases, the service user had been introduced by a friend or by an acquaintance. In three cases, a boyfriend or ex-boyfriend had facilitated the sexual exploitation of a young person. Other people mentioned as having introduced a young person into CSE/trading sex include pimps, a step-sister, and the mother of a friend.

Predicting Involvement in CSE/Trading Sex

A binary logistic regression was performed to discern which of the risk factors significantly predicted involvement in CSE/trading sex. Diagnostics testing the data for multicollinearity (a plausible concern given the overlapping nature of the risk factors under consideration) indicated no VIF value substantially larger than 1 and that all tolerance values were above .2.

All risk factor categories were entered as predictors. If a risk factor was present in a service user, it was coded as 1. If a risk factor was not present, or if information was unobtainable on a risk factor, it was coded as 0. Involvement in CSE/trading sex was entered as dichotomous criterion outcome (*involvement at some point* = 1, *no reported involvement in CSE/trading sex* = 0; Table 2).

The likelihood ratio test of the model yielded a significant result, $\chi^2(14) = 51.62$, $p < .001$, which indicated that the model used (involving predictors) was more effective than the intercept-only model (indicating no predictors contribute differentially to prediction). Three measures to test the model's goodness-of-fit were employed: The Hosmer and Lemeshow test, Cox and Snell's R^2, and Nagelkerke's R^2 (see Table 2). The Hosmer and Lemeshow test was nonsignificant, $\chi^2(8) = 13.06$, $p > .05$, which indicates the model fitted the data well. The R^2 indices show the proportional error reduction using the model relative to the intercept-only model. The R^2 indices were .26 for Cox and Snell and .36 for Nagelkerke. The model correctly classified 91.90% of the service users who did not disclose involvement in CSE/trading sex and 47.10% of the sexually exploited. Overall, 78.90% of the cases were classified correctly. The risk factors which significantly predicted involvement in CSE/trading sex were running away, drug/alcohol use by the service user, poverty/debts, and having friends or family members in prostitution. Having friends or family members who were involved in prostitution was the strongest predictor: It increased the odds of the service user being involved in CSE/trading sex by 7.29 times. Running away was the only predictor that significantly decreased the risk of involvement in CSE/trading sex.

Table 2

Logistic regression analysis of risk factors predicting CSE/trading sex in service users attending a voluntary organization working with people involved in or at risk of becoming involved in CSE/trading sex ($n = 175$).

Predictor	B	SE	Wald	df	$Exp(B)$
Running away	−1.49	0.55	7.29	1	0.23[**]
Drug/alcohol use by the service user	1.17	0.54	4.63	1	3.21[*]
Drug/alcohol use by a family member	0.31	0.56	0.29	1	1.36
Concerns about sexual activity	0.45	0.60	0.57	1	1.57
Childhood sexual abuse	−1.47	0.79	3.43	1	0.23
Childhood physical abuse by the parents	0.55	0.64	0.75	1	1.74
Childhood emotional abuse and neglect	0.52	0.54	0.91	1	1.68
Dysfunctional family/family breakdown	−0.35	0.51	0.49	1	0.70
Poverty/debts	1.45	0.52	7.81	1	4.27[**]
Discontinuous schooling	−0.27	0.57	0.23	1	0.76
Delinquency	0.08	0.53	0.03	1	1.09
Friends/family members in CSE/trading sex	1.99	0.50	16.06	1	7.29[***]
Homelessness/temporary accommodation	−0.41	0.54	0.59	1	0.66
Placement in local authority or foster care	0.11	0.52	0.04	1	1.11
Constant	−2.04	0.65	9.78	1	0.13[**]

Note: Hosmer & Lemeshow $\chi^2(8) = 13.06$, $p > .05$. Cox and Snell $R^2 = .26$. Nagelkerke $R^2 = .36$. Model $\chi^2(14) = 51.62$. $p < .001$. $Exp(B) = $ odds-ratio.

[*] $p < .05$.
[**] $p < .01$.
[***] $p < .001$.

Smallest Space Analysis of the Data

To examine whether the risk factors into CSE/trading sex differentiated and to see where the general problems of poverty, substance misuse, and familial abuse lay in relation to the other constructs, a smallest space analysis (SSA; Guttman, 1968) was calculated on the 14 risk factors and whether the person was defined as engaging in CSE/trading sex. This procedure examined how categorical binary (*absent* or *present*) constructs combined when subjected to statistical analysis. The technique simultaneously compares a large number of variables and presents the underlying data structure graphically. The procedure involves calculation of the correlations (associations) between the separate measures, which are then plotted so the more highly they correlate, the closer the measures. Less associated variables are further apart.

The method is more tolerant of "messy" data than structural equation modeling and is commonly used in real-world data sets where the information has not been gathered either by or for psychological measurement (McKee & Egan, 2013). The coefficient of alienation for this solution was .10 (lower than the criterion of .15 for accepting the result as a good fit to the data), which indicates that 90% of the information was conceptually interpretable within the two dimensions found (Fig. 1). The five clusters identified are indicated by the ovals on the diagram and coded *A* to *E*.

Each cluster differentiated major life-history theme within in the cohort. Cluster A comprised CSE/trading sex, poverty, homelessness/temporary accommodation, and having friends or family members involved in prostitution. This construct is referred to as Desperation/Need. Cluster B comprised concerns about sexual activity and personal substance misuse. This cluster reflects immature/out-of-control lifestyles that may place a young person at risk for being introduced to sex work by pimping. Cluster C contained many abusive elements of familial life in the participants (i.e., emotional, physical, and sexual abuse as a child and familial history of substance misuse). As the constructs of cluster C were below the index line, this construct can be regarded as separate to cluster A, which was found above the general horizontal axis. Cluster D is a Delinquency cluster, as the variables comprising this cluster are disrupted schooling, having been in care, and a history of delinquency. That these constructs lay almost all on the vertical index line and toward the center of the plot indicates their high frequency within the cohort and their inability to differentiate between persons.

Cluster E comprised two constructs: family dysfunction/family breakdown, and having been a runaway. Although this construct reflects a specific theme within the cohort (as did clusters B, C, and D), it was not associated with sex work in the same manner as cluster A.

Discussion

The purpose of this study was to examine risk factors for CSE/trading sex in a sample of at-risk persons attending the young people's department of a voluntary organization in Leicester, United Kingdom, which helps young people involved or at risk of becoming involved in CSE/trading sex. The results obtained from the analysis of all active and archived case files of young persons utilizing the services of the agency showed an average of 5.34 risk factors per user. This number is a conservative estimate because risk factors with missing information were coded as *not present*, participants were at liberty to not disclose information, and the agency does not have the resources to check the information or compare their information to official records held by government agencies.

A binary logistic regression was performed to assess which risk factors significantly predict involvement in sexual exploitation. The model fitted the data well, although it was better at classifying a person as not being involved in CSE/trading
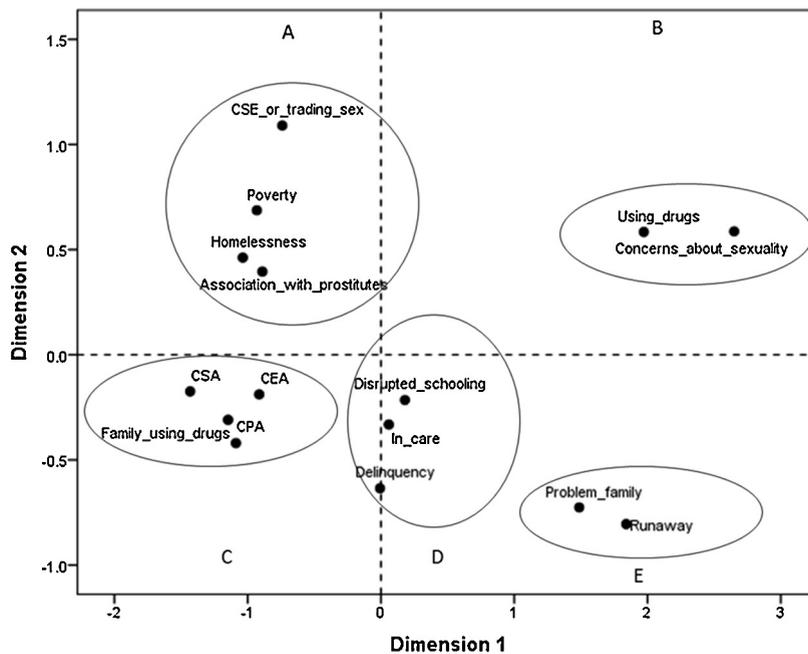
Fig. 1. Smallest space analysis of information from prostitutes or persons at risk of becoming a prostitute attending the drop-in center ($n = 175$; coefficient of alienation = 0.10, Euclidian distance model).

sex than being involved with this outcome. The analysis suggested that the main determinants of being sexually exploited were associating with persons actively involved in prostitution, running away, drug and/or alcohol use by the service user, and poverty/debts. The effects of these predictors were all in the predicted direction (i.e. increasing the odds of becoming involved in CSE/trading sex) expect for running away. Running away was found to significantly decrease a person's risk of being sexually exploited. As noted in the literature review, although some studies find that running away constitutes a risk factor for CSE/trading sex, others do not. Widom and Ames (1994), for example, analyzed official criminal histories of abused and non-abused persons and found none of their participants arrested as runaways were arrested for prostitution as adults. Widom and Ames' (1994) findings and the results of the present study indicate that the link between running away and sexual exploitation is not as strong or as straightforward as is sometimes assumed. There are a several reasons for why this might be the case. For example, it may be that although running away can place young persons in vulnerable situations, it can also reduce the influence of other risk factors (e.g. by escaping an abusive home, or family members already involved in CSE/trading sex).

Although a number of odds ratios associated with being involved with CSE/trading sex were quite high (e.g., being physically abused by the parents increased the risk by 1.74 units), only running away, drug and/or alcohol use by the service user, poverty/debts, and having friends or family members involved in prostitution were statistically significant predictors, with running away decreasing the risk for CSE/trading sex. The sample size was large for a study of this kind, and there was sufficient range in the frequencies of the underlying constructs; however, the sample size was still small in statistical terms. The failure to find more of the examined risk factors to be significant predictors of CSE/trading sex might thus be due to the small sample size.

The results vindicate the multivariate approach taken to the data, as there was explicit recognition of the high frequency of the underlying behaviors, and it was not assumed that they have an inherent association with CSE/trading sex when considered in conjunction with the many other challenges faced by the cohort. This finding does not mean these other problems are not important but that they are not of themselves associated with the outcome. They may also reflect other concurrent processes in the participants' lives. SSA of the risk factors identified five clusters: Desperation/Need, Immature/Out-of-Control, Familial Abuse, Delinquency, and Running Away From a Problematic Family. Although only one of these clusters was explicitly associated with CSE/trading sex (Desperation/Need), Familial Abuse was in the same approximate region; it may be that economic factors lead a person experiencing familial abuse to behaviourally migrate to Desperation/Need.

Many of the risk factors included for the analysis, such as childhood sexual abuse, are generally underreported (Lalor & McElvaney, 2010). It is thus probable that in some cases, more risk factors were present than were reported to the care workers of the Young People's Department. Additionally, some case files included those of service users who had only engaged with the organization for a very short time. The information available on these cases is thus limited, and the number of risk factors found is likely to be an underestimate of the actual number of at-risk indicators. Additionally, the researchers had to rely on the service users' assertions regarding their involvement in CSE/trading sex. It might be that some service users were

sexually exploited but did not disclose this to the care workers. However, it was considered as the best available evidence. For example, relying solely on official criminal histories would have resulted in a considerable loss of data compared to relying on the service users' statements. Moreover, a lack of data or data that was random would not reveal the theoretically and empirically coherent findings we observed.

The data showed that service users who disclosed involvement in CSE/trading sex exhibited a greater mean number of risk factors than those who did not disclose being involved. This supports the notion that it is particular risk factors (as shown in the logistic regression and the SSA) that lead to involvement in sexual exploitation rather than those associated with dysfunctional families per se (Brawn & Roe-Sepowitz, 2008; Van Brunschot & Brannigan, 2002).

Consistent with previous research (Tyler, 2009; Tyler et al., 2000; Williamson & Folaron, 2003), service users who disclosed by whom they had been introduced into trading sex/CSE most often mentioned being introduced by a friend or an acquaintance. The social networks underlying prostitution often reflect concurrent involvement with the criminal economy associated with drug dealing, and thus, there is reciprocal risk. The convergence of these factors with material need for survival may lead the individual to prioritize the financial gain the life may appear to offer (Williamson & Folaron, 2003). Our research suggests that more active management and outreach work regarding potential homelessness, poverty, substance misuse, and disenfranchisement from welfare services in young persons may be a way to reduce one pathway into CSE/trading sex. Young persons associating with known prostitutes or having family members who are sex workers may benefit from being counseled regarding the risks of pursuing the same choices as the sex-working associate.

Another pathway into CSE/trading sex was captured by the second cluster identified in the SSA; a young person who is misusing drugs and/or alcohol and is prematurely sexually active. This risky behavior may lead to explicit or implicit pimping (as when a boyfriend seeks to pimp out his girlfriend to subsidize his own addiction; Kennedy, Klein, Bristowe, Cooper, & Yuille, 2007). There are many reasons why a young person may become involved with persons who could prove damaging to them. One theory posits that assortative bonding leads young persons to seek out persons like themselves (Monahan, Cauffman, & Steinberg, 2009), which assumes the antisocial lifestyle and choices made reflect something about the individual involved. Another theory is that repeated victimization (as perhaps reflected in the experiential assaults described in the other risk factors examined by this study) lead to traumatic bonding, in which emotional attachments – formed from the accepted power imbalances and intermittent good-bad treatment of abusive relationships – become normalized (Dutton & Painter, 1981). Empowering young persons to not accept such behavior and dynamics in relationships may reduce being drawn to associates who exploit their need and dependency. Such activity would include informing a young person of what actually constitutes an abusive relationship, as the relationships and attachments previously experienced may well have been abusive in themselves and led the individuals to tolerate behavior conventionally found unacceptable. Empowerment activities could include providing advice on how to evade abusive partners.

The present study is complementary to the many qualitative studies conducted on cohorts such as the one we describe. We do not explore the rich phenomenology of the persons in our cohort or discuss the broader social structures that cause privation to many persons, our focus having been an audit of information providing an overview of the entire cohort. Other such studies may follow. Our findings suggest prioritization of resources to specific difficulties relating to pathways into prostitution. This strategy enables division of roles between official agencies concerned with mandatory provision, and tasks conducted by the charitable and voluntary sector addressing specific concerns.

The sample studied comprised young persons who had been referred to a voluntary organization working with people involved in or at risk of becoming involved in CSE/trading sex. There was thus a pre-selection of participants resulting in a sample of young people who were involved in or at risk of becoming involved in CSE/trading sex. However, the findings might be generalizable to other at-risk populations and useful in guiding intervention strategies for young persons vulnerable to CSE.

A considerable amount of research has been devoted to the exploration of factors that increase the risk for CSE/trading sex. Only a few studies have considered protective factors related to sexual exploitation (e.g., Lavoie et al., 2010). To improve prevention and intervention strategies, future research should consider factors that decrease a person's risk of becoming involved in CSE/trading sex or that hasten their departure from such a life. We see outreach interventions with prostitutes and their associates as critical to disrupting the trajectory by which young people see the behavior as a legitimate and practical choice. Additionally, evaluations of the current interventions are needed to assess which programs and methods significantly reduce the risk of sexual exploitation in young people at risk.

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