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Youths who sexually harm: A multivariate model of characteristics

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Abstract This study investigates the variations in characteristics that exist among youths who sexually harm (YSH). Three conceptually distinct sets of background characteristics are hypothesized from the literature relating to whether the YSH was abused, delinquent or impaired. Forty-one characteristics were drawn from an extensive and detailed review of the files of 300 cases. The pattern of co-occurrence of the presence or absence of these characteristics was revealed by a non-metric multidimensional scaling procedure, smallest space analysis (SSA). The results provide empirical support for three distinct background themes as 215 (71%) of the youths could be assigned to one dominant background theme (abused, delinquent or impaired). The findings have implications for the ways in which practitioners differentiate between young people who sexually harm.

Keywords Adolescent; sexually harmful behaviour; abuse; delinquency; impairment; smallest space analysis

Introduction

Over the last two decades there has been an increase in public and professional concern about sexual crimes committed by adolescents. Research suggests that young people under the age of 18 commit between a third and a quarter of all sexual offences (Cawson, Wattam, Brooker & Kelly, 2000; Horne, Glasgow, Cox & Calam, 1991; NSPCC, 2002). However the number of empirical studies remains limited when compared with studies of adult sex offenders.

Most of the empirical studies on young people who sexually harm are limited to tallies of the frequencies of particular descriptive characteristics of these individuals, their victims and their sexually harmful behaviour (Dolan, Holloway, Bailey & Kroll, 1996; Manocha and Mezey, 1998; Richardson, Graham, Bhate & Kelly, 1995). These studies have shown that youths who sexually harm have a range of characteristics and constitute an extremely diverse population. Researchers now need to analyze the complex relationship that exists between each of these characteristics.

To date, the majority of research which has attempted to derive subgroups of youths who sexually harm has utilized various victim characteristics, such as victim age and gender, either

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as a single factor or combined with particular characteristics of youths who sexually harm (YSH) (Hunter, Figuerdo, Malamuth & Becker, 2004; Kaufman, Hilliker & Daleiden, 1998; Richardson, Kelly, Graham & Bhate, 1997). However the National Organization for the Treatment of Abusers (NOTA) has criticized the use of victim characteristics as a method of differentiating youths who sexually harm. In a position paper they stated:

frequently adolescents who have sexually offended have not targeted a specific group of victims, but perhaps one individual because of that person's availability. (NOTA, 2001)

This study therefore utilizes YSH characteristics only as a method of differentiating YSH. Research has found that there is no characteristic shared by the majority of youths who sexually harm, therefore there is no "typical" young sex offender (Beckett, 1999; Bourke & Donohue, 1996; Marshall, 1996). This observed heterogeneity suggests that there may be identifiable subgroups of YSH each with distinct developmental trajectories and unique intervention needs.

Detailed examination of the diverse literature on YSH highlights three possible distinct issues relating to the backgrounds of these youths. Some researchers argue that the important factor in a youths background is abuse (Burton, Miller & Shill, 2002), some cite general delinquency as a factor (Butler and Seto, 2002) and others emphasize impairment issues (Timms & Goreczny, 2002). This study aims to bring together these different factors and psychological processes into one model.

Sexually harming young people who have been abused

Barbaree et al. (1998) argue that the majority of people who sexually harm have grown up in abusive rather than nurturing family environments. They hypothesize that children from abusive families have experiences that, for some, may lead to the development of sexually harmful behaviour. Childhood experience of being physically abused and neglected has been associated with sexual violence in juvenile offenders (Ryan, Miyoshi, Metzner, Krugman & Fryer, 1996). The proportion of youths who sexually abuse who report being physically abused is very high; for example, 64.4% in Alywin et al.'s (2003) sample of 103 adolescent child molesters. Van Ness (1984) found that 41% of adolescent sex offenders reported having been physically abused or neglected, as against 15% of a matched sample of general delinquents.

A prevalent clinical assumption regarding YSH is that many have themselves been sexually abused and their sexual offending behaviour somehow stems from early sexual victimization (Worling, 1995). For young people who have been sexually abused, their views about sex are often strongly affected by their abuse experience, although the way in which the behavioural consequences of this experience manifest themselves in various ways (Brown, 1999). Some young people retreat, becoming withdrawn and isolated, and may be further victimized in the future. Others act out their feelings either violently or criminally and a few turn to abusing others. According to Hackett (2002), mechanisms that are thought to contribute to this "cycle of abuse" include the reenactment of the abuse (McCormack et al., 1992); an attempt to achieve mastery over resulting conflicts (Watkins & Bentovim, 1992); and the subsequent conditioning of sexual arousal to sexually aggressive fantasies (Becker & Stein, 1991). Using social learning theory, Ryan (1989) suggests that the traumatized child may become fixated on the trauma, their abusive behaviours being learnt through experience and observation.

Support for this "cycle of abuse" theory is found in the relatively high proportion of young people in samples of sexual aggressors, around 30%, who were themselves victims of

sexual abuse (Dolan et al., 1996). In their North American multisite study Ryan et al. (1996) found that 39% of adolescent sex offenders had been sexually abused. This figure is four times higher than the 10% sexual victimization rates for the general male population (Watkins & Bentovim, 1992). A significantly higher proportion of adolescent female sexual abusers (93–100%) are reported as having a history of sexual victimization (Ryan & Lane, 1991). There is also evidence that there is high level of sexual deviancy in the homes of young people who sexually harm (Awad, 1984). However, only a small number of sexually victimized youths become adolescent sexual offenders, and not all adolescent sexual offenders have been sexually victimized (Burton et al., 2002). However, it appears clear that YSH have a greater than normal likelihood of having been physically and sexually abused.

Research that has investigated how abused YSH differ from other YSH has concentrated on the effect of sexual abuse. Veneziano et al. (2000) found that individuals who had been sexually abused were more likely to select victims and sexual behaviours that reflected their own sexual victimization. Research has shown that they were more likely to assault victims who were male and victims who were younger than themselves (Burton et al., 2002; Kaufman et al., 1996). Cooper et al. (1996) reported that individuals who had experienced abuse (sexual or physical) began their offending at a younger age and had more victims.

Sexually harming young people who are "delinquent"

YSH frequently also engage in non-sexual criminal and antisocial behaviour (Ryan et al., 1996). Becker (1988) argued that these young people are displaying sexually harmful behaviour as part of a broader antisocial repertoire. These delinquency experiences may encourage the development of negative cognitions and subsequent aggression towards women (Malamuth et al., 1991). Malamuth (1986) hypothesized that boys who emphasized sexuality and conquest as a means to peer status and self-esteem may use coercion to induce sexual contact.

In Ryan et al.'s (1996) large-scale study, 63% of adolescent sexual abusers had committed non-sexual offences and 28% had more than three such offences. Becker et al. (1986) found that 50% of adolescent incest abusers had a prior arrest for a non-sexual offence, while Van Ness (1984) found that 86% of adolescent rapists had engaged in previous acts of non-sexual violence. These young people, therefore, are displaying an eclectic criminal background.

British adolescents also have a high incidence of generalized behavioural problems and delinquency, including a high incidence of property offences (Dolan et al., 1996; Richardson et al., 1995). Studies also seem to indicate that there are few personality differences between YSH and other young males engaging in criminal behaviour (McCraw & Pegg-McNabb, 1989; Smith, 1988). O'Halloran et al. (2002) found that YSH were similar to a clinical control group who had significant behavioural problems but no history of sexual offending, in terms of self-esteem, emotional loneliness and perspective taking.

Beckett (1999) argues that one would expect high levels of alcohol and drug abuse to be seen more often in young people who are delinquent; however, there is little agreement in the literature as to the extent of alcohol and drug involvement in young people who sexually harm others (Lightfoot & Barbaree, 1993). It has been suggested, however, that intoxication at the time of the offence is uncommon; in the case of Wasserman and Kappel's study (1985), the rate of intoxication in their sample was only 10%.

Butler and Seto (2002) distinguished two types of adolescent sex offenders according to their non-sexual offence history. They found that youths who perpetrated sexual offences in addition to non-sexual offences had greater current behaviour problems, more anti-social attitudes and beliefs and higher risk of re-offending than youths who committed only sexual offences.

Research that has investigated how delinquent YSH differ from other YSH has concentrated on the effect that delinquent behaviour has on subsequent recidivism. Researchers have found that the extent to which a YSH engages in non-sexual delinquent behaviour is relevant to the assessment of risk of future criminal behaviour (Beckett, 1999). Non-sexual (violent and non-violent) criminal behaviour is correlated with repeated sexual violence by adult sex offenders (Hanson & Bussiere, 1998) and may also be an important risk factor for repeated sex offending in young people.

Sexually harming young people who are "impaired"

Researchers have found that YSH often have some form of emotional, psychological or physical impairment (NSPCC, 2002). British studies of YSH identify between one-third and half of their samples as learning disabled or having significant educational problems (Dolan et al., 1996; Hawkes et al., 1997; Vizard, 2000).

Traditionally, children and young people with learning disabilities are viewed as requiring a greater degree of supervision and restriction. Fairburn et al. (1995) described a process they termed "developmental suspension", in which young people with learning disabilities are "held" at a certain age in the minds of their parents and carers. The absence of private space, limited social networks and poor social skills may leave a developing adolescent with little direction for non-problematic sexual expression. It is unclear exactly why children and young people who have learning and educational difficulties are over-represented in this group. They could be more likely to present such behaviour or it could be that they are more likely to be apprehended (NSPCC, 2002).

Research has tended to focus on intellectual impairment as opposed to social or emotional impairment. However, many case reports have noted that non-learning disabled YSH may also suffer from a range of social and psychological impairments, including low selfesteem, social isolation, loneliness, fear of intimacy and poor social skills (Becker & Abel, 1985). O'Callaghan and Print (1994) found that YSH reported higher levels of withdrawal and social anxiety than young people who perpetrated non-sexual offences. These young people feel isolated and estranged and have few if any friends as a result of interpersonal difficulties. Adolescents who lack the requisite skills to interact with peers may befriend younger children and then sexualize those relationships (Becker, 1988). Cortoni and Marshall (2001) proposed that sex is often used as a learned coping response by sex offenders for dealing with negative emotional states, such as loneliness and lack of intimacy.

Research that has investigated how impaired YSH differ from other YSH has concentrated on the effect of learning disabilities. Young people with learning disabilities who sexually harm exhibit a similar range of offence behaviours to young people without learning disabilities (Timms & Goreczny, 2002). However, these disabled youths are significantly more likely to display inappropriate, non-assaultive "nuisance" behaviours such as public masturbation, exhibitionism and voyeurism (Stermac & Sheridan, 1993). Adolescents with learning disabilities also appear to be indiscriminate in their sexual activity in that they are as likely to abuse a male victim as a female victim and have higher rates of peer victims (Gilby, Wolf & Goldberg, 1989). Research has also shown that the abusive behaviour of young people with learning disabilities is often more opportunistic and unsophisticated, with the use of fewer grooming behaviours than young people without disabilities (Timms & Goreczny, 2002).

Aims of the study

Broadly, therefore, the literature on YSH suggests that there exist at least three core background themes; abuse, delinquency and impairment. These three themes represent different experiences and thereby varying psychological processes which may then account for their subsequent sexually harmful behaviour. The question therefore arises as to whether YSH characteristics can be identified to reflect these three themes. In conducting the current study, we therefore hypothesized that each of the three background themes would contain a set of thematically similar characteristics that consistently co-occur. Although these three themes have been identified from a review of the literature, we are not suggesting that they represent mutually exclusive categories. For some young people, for instance, all three themes may be present to some degree. However, as these themes represent different psychological processes, we hypothesized that the backgrounds of the majority of YSH will predominantly reflect one of these three themes. If each of these themes contains a subset of distinct characteristics, with one theme of background characteristics being predominant for each individual, then this would have clear implications for the way in which practitioners differentiate between young people in treatment.

Method

Procedure

As the nature of any one agency will inevitably determine the cases included and excluded from the study, and in order to improve the generalizability and representativeness of the study, information was obtained from two specialist agencies working with children and young people who sexually harm others in the United Kingdom. G-MAP is an independent provider that offers a range of services for YSH. The agency was established in 1988 and is based in Greater Manchester. The Barnardo's 5A project is based in Liverpool and has, since 1994, provided a service for young people with problematic sexual behaviour from the Merseyside area. The youths were referred to the agencies between 1988 and 2002. In total, 170 cases from G-MAP and 130 from the 5A project were accessed.

The data set is based on an extensive and detailed review of subject files. These included, where available, previous social services, school, psychological, psychiatric, youth offending team and police records. A data collection form, designed specifically for this study, was used to collect basic demographic data, family composition and environment, school history and personal development, mental health history, psychosexual and abuse history as well as history of offending behaviour. In total, 41 characteristics were coded as present or absent for each individual. Full details of these characteristics are outlined in the content dictionary (see Appendix). An independent observer was used to investigate the inter reliability of the data collection form. A Kappa correlation coefficient of 0.76 was generated between two independent observers.

As this study relies solely on case files which were not gathered for the purpose of scientific research, the consistency with which information is recorded and the attention to detail in some cases is limited (Canter & Alison, 2003). Information contained within the case files may be missing or incomplete. This lack of comprehensive information increases the potential for distortion. A dichotomous approach, based on presence/absence, was therefore used, as previous research has argued that this approach can be used to ensure maximum clarity and reliability when using records not collected initially for research purposes (Canter & Ioannou, 2004; Salfati, 2000).

Sample

A total of 300 youths participated in the study. All were aged 18 or under at the time of their referral to the specialist agencies. The mean age of the cohort was 14.3 [standard deviation (SD) = 1.79] years with an age range of 9–18 years. The mean age of this sample was lower than other British studies, who report the average age as 15 years (Manocha & Mezey, 1998; Richardson et al., 1995); however, none of these studies contained youths aged younger than 11 years. This cohort contained youths as young as 9 years, accounting for the lower mean age. Of these youths, 292 (97%) were males and eight (3%) were females. The proportion of male and females within the study is comparable with other British research carried out by Manocha and Mezey (1998).

Statistical analysis

This study aims to investigate whether YSH characteristics reflect three distinct background themes: abuse, delinquency and impairment. In order to do this, a multidimensional scaling procedure known as "Smallest Space Analysis" (SSA) (Lingoes, 1973) was utilized. SSA is based on the assumption that any underlying structure will be appreciated most readily by examining the relationship each variable has with every other variable (Canter, 1985). Although this methodology has not been used with samples of YSH, it has been used in the related areas of paedophile and rape behaviour (Canter et al., 1998, 2003).

The SSA procedure calculates the correlation between each characteristic with every other characteristic. As the data in the present study were archival it was therefore expected that the data were not error-free and would contain considerable "noise" that may reduce the possibility of interpreting the results (Canter & Heritage, 1990) Therefore, Jaccard's coefficient was used, as this is a measure of association that does not take account of joint non-occurrences. The use of this measure is in accordance with previous studies using archival material (Canter, Bennell, Alison & Reddy, 2003; Canter & Ioannou, 2004). As SSA is a non-metric procedure, the correlations are rank ordered to enable the SSA to represent the characteristics in the smallest possible dimensionality. These rank-ordered correlations are then represented as distances in an abstract "space". This allows the underlying structure of the YSH characteristics to be examined, allowing any themes within the characteristics to be identified.

The visual representation is generated such that the higher the correlation between any two characteristics, the closer together the points representing them will appear on the spatial plot (Guttman, 1968). In this way, any characteristics that co-occur frequently will be close together on the results plot. The resulting patterns of characteristics can hence be examined and thematic differentiations can be delineated. The aims of the study were built upon the assumption that characteristics with similar underlying themes would be more likely to co-occur than those that imply divergent themes, each theme containing a set of thematically similar YSH characteristics. As mentioned earlier, this regional hypothesis has previously been viewed as an appropriate way of interpreting co-occurrences of variables, and has been used successfully to interpret related areas such as paedophilia (Canter, Hughes & Kirby, 1998) and rape (Canter et al., 2003).

Results

The SSA was carried out on 41YSH characteristics across the 300 cases. A three-dimensional SSA solution was found to have the Guttman–Lingoes coefficient of alienation 0.23 in 15

iterations. The Guttman–Lingoes coefficient is a measure of how well the analysis has managed to "fit" the spatial representation of all the inter-relationships among the variables into the three-dimensional space. The coefficient of alienation ranges from 0 (indicating a perfect fit) to 1. A coefficient of 0.2-0.25 has been considered a reasonably good degree of fit (Shye, Elizur & Hoffman, 1994).

Figures 1 and 2 show vectors one and three of the three-dimensional space. In these figures each point represents a YSH characteristic from the content dictionary (Appendix). The closer any two characteristics are, the more likely it is that the characteristics will co-occur in comparison with other characteristics. For illustration, it is very likely that if a youth has been sexually abused, they will also have been neglected. By contrast, it is unlikely that if a youth has low self-esteem then he will have alcohol or drug problems, as these characteristics are distanced from each other in the SSA plot.

Frequencies of characteristics

In studies of offence behaviour, it has been found to be productive as the first step in exploring the structure of the SSA plot to look at the frequency of occurrences of the YSH characteristics. The SSA plot is derived from the correlations between the characteristics and thus has no inevitable link to their frequencies (Canter et al., 1998, 2003). Therefore any frequency structure that emerges is an empirical finding. Figure 1 presents the frequencies of occurrence of each characteristic in this sample. Visual examination of the SSA plot reveals

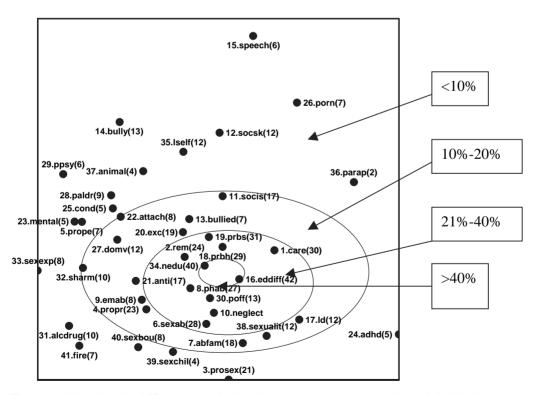


FIGURE 1. A three-dimensional SSA, vectors 1×3 , shows frequency contours of perpetrator characteristics. Numbers indicate perpetrator characteristics as listed in Appendix. Parenthesis contain the percentage frequency of each characteristic.

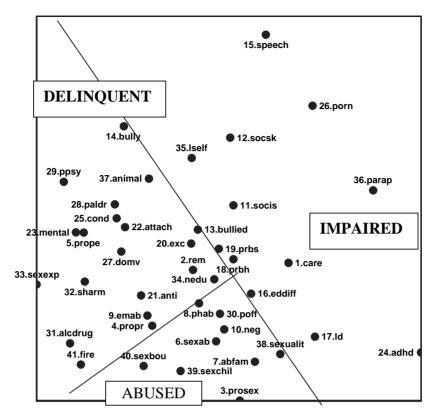


FIGURE 2. A three-dimensional SSA, vectors 1×3 , shows themes in the backgrounds of youths who sexually harm. Numbers indicate perpetrator characteristics as listed in the Appendix.

that it is possible to draw clear contours encompassing the characteristics that occur in over 40% of cases, in 21-40% of cases, 10-20% of cases and less than 10% of cases. Examination of these frequency contours indicates that they are a reflection of the severity of the characteristic. The lower the frequency the further the characteristic is from the centre of the plot and the greater its severity.

Figure 1 shows that characteristics that serve to differentiate between youths occur towards the edges of the plot, while those held in common across individuals are located towards the centre. In this study the characteristics "educational difficulties" and "not in full-time education" occur in over 40% of cases. Although these characteristics represent the core characteristics exhibited by youths who sexually harm, they do represent less than 50% of the sample. The fact that each of the YSH characteristics report medium to low frequencies demonstrates the heterogeneity of this sample.

Themes of background

The next step was to examine the SSA plot to establish whether YSH characteristics reflect the three themes of background. Visual examinations of the SSA plot reveals that it can be partitioned into three distinct regions, as shown in Figure 2.

Abused youth

As can be seen from Figure 2, there is a collection of YSH characteristics at the bottom of the plot that imply an abused theme, incorporating variables such as "victim of sexual abuse", "victim of physical abuse" and "neglect". These all accord with the proposal that these youths have backgrounds characterized by abuse and maltreatment, as proposed by Barabaree, Marshall & McCormick (1998). The variables "sexual abuse in the family", "parental/sibling offending" and "inappropriate sexual boundaries" appertain to a dysfunctional family. The variables "sexually attracted to children" and "confused about sexuality" are also contained within this theme. These variables relate specifically to sexual attraction, which may be a consequence of the young people having experienced sexual abuse themselves, as the variable "victim of sexual abuse" is located in the same region. The variable "previous sexual offence" in this region highlights how for some young people their abusive experiences result in a "cycle of abuse".

Delinquent youth

YSH characteristics to the left of the plot indicate a delinquent theme, emphasizing deviancy and criminality. This theme included variables such as "previous property offences", "antisocial behaviour", "bullied others" and "alcohol and/or drug abuse". These all accord with the proposal that these youths are primarily delinquent in nature and their sexual offending behaviour is one extreme form of this delinquency. The variables "not in full-time education", "excluded", "bullied others" relate specifically to the young person's deviancy in school. General delinquency was characterized by "previous property offence", "antisocial behaviour", "alcohol/drug abuse", "previous offence against person", "set fires" and "cruelty to animals". The families of these youths could also be described as dysfunctional, because variables in this region include "history of removal from home", "witness of domestic violence", "parents' drug/alcohol abuse", "emotional abuse", and "parents having psychiatric problems". Some of the individuals in this region had previously been involved in a "consenting sexual experience", therefore their sexual offending behaviours are not simply a matter of misguided and inept attempts at sexual experimentation. There are also variables included in this region such as "self-harm", "attachment disorders", "mental problems" and "conduct disorder" which indicate that for some of these delinquent youths their behaviour may be an indication of other serious psychological problems.

Impaired youth

YSH characteristics to the right of the plot indicate an impaired theme. This theme included variables such as "educational difficulties", "learning disability", "lack of social skills" and "social isolation". These all accord with the proposal that these youths have some form of emotional, psychological or physical impairment, as demonstrated in the variables "educational difficulties", "learning disability", "speech/hearing problems and "ADHD". The variables "behavioural problems at home", "behavioural problems at school", "social isolation", "lack of social skills", "low self-esteem" and "bullied" can be viewed as consequences of the young person's impairment. Interestingly, the variables "pornography" and "paraphilic behaviours" are contained within this theme, this may relate to the idea of "developmental suspension" which was described by Fairburn, Rowley & Bowen (1995) as the process by which young people with particular impairments are "held" at a certain age in the minds of their parents and carers which may leave a developing adolescent with little

direction for non-problematic sexual expression. As can be seen from the SSA plot, the impairment region is considerably larger than the other two regions. This may be due to the fact that this region contains a wide continuum of impairment, including emotional, psychological and physical aspects. Future research could investigate whether there are distinct regions within this large region.

Within the impairment region there are a number of gaps in the plot. Previous research has argued that these gaps are also of some interest (Canter et al., 2003), as they may indicate characteristics which are missing from the present sample. For example, it could be hypothesized that the area between educational difficulties and learning disabilities may contain characteristics relating to the attendance of a special school. It is also hypothesized that the characteristic "physical deformity" would also appear in this region. Future research may then be carried out with new data sets to test the existence of these missing characteristics.

Table I shows the YSH characteristics contained within each of the background themes and their relative frequencies. The highest frequency characteristics within each theme of

Abused	%	Impaired	%	Delinquent	%
6. SEX Abuse	28	16. EDucational DIFFiculties	42	34. Not in full time EDUcation	40
8. PHysical Abuse	27	19. behavioural PRoBlems at School	31	2. history REMoval from home	24
3. PRevious SEX Offence	21	1. CARE	30	4. PRevious Offence against PRoperty	23
10. NEGlect	19	18. behavioural PRoBlems at Home	29	20. EXCluded	19
7. sexual ABuse in FAMily	18	11. SOCially Isolated	17	21. ANTI social behaviour	17
30. Parent/sibling OFFenders	13	12. lack SOCial SKills	12	14. BULLied others	13
38. confused about SEXUALITy	12	17. Learning Disabled	12	27. witness DOMestic Violence	12
40. inappropriate SEXual BOUndaries	8	35. Low SELF esteem	12	31. ALCohol and/or DRUG abuse	10
39. SEXually attracted to CHILdren	4	13. BULLIED	7	32. Self-HARM	10
		26. PORNography	7	28. Parents ALcohol/ DRug abuse	9
		15. SPEECH/hearing problems	6	22. ATTACHment disorder	8
		24. ADHD	5	9. EMotional Abuse	8
		36. PARAPhilic behaviour	2	33. SEXual EXPerience	8
				5. PRevious Offence against PErson	7
				41. set FIREs	7
				29. Parents PSYchiatric problems	6
				23. MENTAL problems	5
				25. CONDuct disorder	5
				37. cruelty to ANIMALs	4

 Table I. Characteristics contained within background themes. The letters in capitals are used as abbreviations in Figures

 1 and 2.

background help define that theme. The highest frequency characteristics in the abused theme are "sexual abuse" and "physical abuse"; in the impaired theme they are "educational difficulties" and "behavioural problems"; and in the delinquent theme the high frequency characteristic is "not in full time education".

In summary, the visual examination of the SSA plot confirm that the sample of YSH characteristics could be readily differentiated in terms of distinct abused, delinquent and impaired backgrounds. Characteristics that co-occur at the bottom of the plot all reflect a common abused theme, characteristics at the left of the plot all reflect a delinquent theme and the characteristics at the right of the plot all reflect an impaired theme. A linear partition was superimposed onto the plot to reflect these distinct thematic differences.

Classifying youths who display sexually harmful behaviour

Although the SSA indicates that the characteristics of youths who sexually harm can be classified in terms of three psychologically meaningful distinct themes, it does not classify the individuals. In order to test whether the proposed framework serves as a useful way of classifying youths who sexually harm, each of the 300 cases in the data set was examined individually to ascertain whether they could be assigned to one dominant theme of background characteristics. While the background of any one individual may contain variables from more than one SSA region, it was hypothesized that the majority of characteristics an individual exhibited would fall into one particular region, as these regions represent psychologically distinct background themes. Every youth was given a score for each of the three themes, reflecting the percentage of abused, impaired and delinquent variables which characterized their individual background. The criterion for assigning an individual to a particular theme was that the dominant theme had a greater score than the sum of the other two themes (Salfati & Canter, 1999).

Using this system a total of 71% (215 of 300 cases) could be classified as exhibiting a dominantly abused, impaired or delinquent background. The most frequent theme was impaired youth, which represented 88 cases (29%). This was followed closely by the abused youth representing 85 cases (28%), and finally the selinquent youth, which represented 42 cases (14%). If an individual had similar frequency scores on more than one theme they were classified as a hybrid. The most frequent hybrid was abused–impaired youth, which represented 15 (5%) cases, and abused–delinquent youth representing five cases (2%). There were no youths whose background reflected a delinquent–impaired background. Interestingly, there were 17 cases (6%) that contained no characteristic from any of the three themes. These individuals' backgrounds therefore contained none of the characteristics identified by this study. Future research would need to investigate these individuals in more detail to ascertain whether information was missing from their case files or whether they have distinct backgrounds, which contain YSH characteristics not identified here. Therefore there were 48 cases (16%) whose backgrounds reflected all three themes to a similar degree.

Conclusion

Beckett (1999) argued that YSH are a heterogeneous group. This observed heterogeneity suggests that there may be identifiable subgroups of YSH. Detailed examination of the relevant literature highlighted three predominant background themes for these youths, abuse, delinquency and impairment. The results of the SSA show that all the YSH characteristics identified report low to medium frequencies, this indicated the heterogeneity of the sample

and the possibility that distinct subgroups exist. The frequency structure of the SSA indicated that the further away from the centre a characteristic was, the lower its frequency and the greater its severity. The SSA also showed that each of the three themes is distinguishable, being made up of a subset of conceptually related characteristics. The study also hypothesized individuals would demonstrate one dominant theme of background characteristics. The fact that the majority of cases, 71%, reflected one dominant theme provides empirical support for this hypothesis. The results therefore lend support to what may be regarded as three distinct "syndromes" that underlie youthful sexual abuse.

The NSPCC (2002) stated that it is impossible to know the current level or mix of treatments services available in the United Kingdom. A needs-led assessment is central to a young person being viewed holistically, as opposed to an exclusive focus on sexual behaviours. Masson and Hackett (2003) emphasized the need for services to attend to the diversity of this heterogeneous population. The findings of this study will aid practitioners who work with these young people as it will allow the majority of individuals' needs to be identified as arising from the predominance of one background theme based on their characteristics, as opposed to the current tendency to classify all YSH as one group of individuals. Effective classification systems can help criminal justice agents in their decision making, improve service delivery and make more efficient use of the limited resources made available to specialist agencies. Treatment programmes may also be tailored specifically to these three groups, as each has unique developmental trajectories and treatment needs, although is not suggested that this classification be used alone as an assessment for placement or treatment planning.

Youths who have been abused can also be described as "children in need". The characteristics within the abused theme include physical and sexual abuse. It is possible that these youths are therefore harming others as part of a response to their own abusive experiences. For these individuals, the short- and long-term effects of their own abuse may be significant and require attention. Practitioners may need to address the issues relating to the individual's experience of victimization, which would include issues around sexuality and sexual attraction, as YSH characteristics in this abused theme included confusion over sexuality and sexual attraction to children. Treatment should also focus on the personal and situational factors that increase the likelihood of sexual offending as the characteristic "committed a previous sexual offence" was included in this Abused theme.

Youths who are delinquent do not "specialize" in sex offences, as characteristics in the delinquent theme include previous property offence, previous offence against a person, antisocial behaviour and firesetting. These youths are therefore sexually harming as part of an overall pattern of delinquency, as these youths have a broader propensity to violate the right of others and engage in other antisocial behaviour and are also found to be high risk for re-offending (Butler & Seto, 2002). Practitioners may need to target the treatment of these individuals to general delinquency risk factors which address the individual, familial and social influences on their antisocial behaviour, as well as assisting with any drug and alcohol problems an individual exhibits, as these characteristics were also included in the delinquent theme.

Youths who are impaired represent a wide continuum, including emotional, psychological and physical impairment. The characteristics within the impaired theme include speech or hearing impediments, behavioural problems, educational difficulties, attention deficit hyperactivity disorder (ADHD) and learning disabilities. It is unclear why young people with impairments sexually harm: they could be more likely to present such behaviour, or it could be that they are more likely to be caught (NSPCC, 2002). Practitioners, however, need to be aware of the enormous variation in socio-emotional, cognitive and physical development between youths of the same age. These youths require specialist assessment frameworks, as problems with general literacy, speech and communication deficits, conceptual understanding and suggestibility must be taken into account. Practitioners may also need to address the issue of improving the individual's social skills, as YSH characteristics within this impaired theme included poor social skills, low self-esteem, bullying and social isolation.

There are, however, limitations to this study. The use of case files as the source of information resulted in unusual frequencies for some of the characteristics, for example the use of pornography at 7% seems extremely low. As discussed earlier, the non-reporting of a particular characteristic does not necessarily mean that the individual did not have this characteristic. Information given to these specialist agencies during the referral process may not contain all the relevant information. For example, youths may not have received the appropriate psychiatric assessments and or diagnoses prior to their referral. This could have resulted in the relatively low frequency of some of the variables. A measure of association was used in order to reduce the effect of lack of reporting. This model has shown that these YSH characteristics are useful discriminators and practitioners can now use this model as a guide for collecting information during the referral process.

Future research could investigate whether this tailored approach to treatment has a significant impact on deterring further sexual offending. Due to problems with the nature of the data in the current study, future research could interview YSH to ensure that all the characteristics are recorded accurately and the model could be re-tested. Future research now needs to analyse various data sets from different agencies and countries to investigate whether the model can be applied to different samples.

As discussed earlier, SSA has been used to interpret successfully the related areas of paedophilia (Canter et al., 1998) and rape (Canter et al., 2003). These models have focused on the behaviour exhibited by these adult offenders during the abusive incident itself. Future research by the authors will investigate whether there are different themes of offence behaviour being displayed by these youths, as has found to be the case in adult offenders. The authors will also examine the relationship between the background theme a youth exhibits and the sexually abusive behaviour they display.

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Appendix: Contant dictionary

	Abbreviated	
Variable name	name	Definition
1. In Local Authority care	care	YSH in Local Authority care at time of referral
2. History of removal from home	rem	YSH has a history of being removed from home, being placed in various residential settings either by parent or local authority
3. Previous sex offence	prosex	YSH has previously carried out a sexual offence which was dealt with by the police (includes those individuals who were not charged)
4. Previous offence property	propr	YSH has previously been apprehended for an offence against property, which includes burglary, arson and theft (includes those individual who were not charged)
5. Previous offence person	prope	YSH has previously been apprehended for an offence against a person excluding sexual offences. This includes assault and harassment (includes those individual who were not charged)
6. Victim of sexual abuse themselves	sexab	The YSH was a victim of sexual abuse themselves
7. History of sexual abuse in the family	abfam	There is history of sexual abuse within the YSH's family (does not include abuse of or by the YSH themselves)
8. Victims of physical abuse	phab	The YSH was a victim of physical abuse
9. Victims of emotional abuse	emab	The YSH was a victim of emotional abuse
10. Victim of neglect	neg	The YSH was a victim of neglect
11. Evidence of social isolation	socis	The YSH is described as being socially isolated, lacking any peer relationships
12. Poor social skills	socsk	The YSH is described as lacking the social skills to enable him/her to interact with peer age group
13. Bullied	bullied	The YSH has suffered from bullying
14. Being a bully	bully	The YSH is bulling other individuals
15. Problems with speech or hearing	speech	The YSH suffers from some form of speech impediment (e.g. stuttering) or hearing problem
16. Educational difficulties	eddiff	The YSH is formally diagnosed as having statemented educational needs
17. Diagnosed as learning disabled	ld	The YSH is formally diagnosed as having a learning disability

Appendix	(Continued)
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Variable name	Abbreviated name	Definition
18. Behavioural problems at home	prbh	The parents or carers report that the YSH displayed behavioural problems at home this includes violent and abusive behaviour towards parents/carers and/or siblings
19. Behavioural problems in school	prbs	The school reports that the YSH displayed behavioural problems at school this includes disrupting class, violent and abusive behaviour towards staff and other pupils
20. Excluded from school	exc	The YSH has been excluded from a school
21. Antisocial behaviour	anti	The YSH carries out acts of antisocial and general nuisance behaviour, not necessarily dealt with by the police e.g. graffiti, vandalism, gang behaviour, etc.
22. Attachment disorders	attach	The YSH is reported to be suffering from an attachment disorder
23. Mental illness	mental	The YSH suffers from some form of mental illness
24. ADHD	adhd	The YSH is formally diagnosed as suffering from ADHD
25. Conduct disordered	cond	The YSH is formally diagnosed as suffering from a conduct disorder
26. Use of pornography	porn	The YSH uses pornography films or magazines
27. Domestic violence (witnesses)	domv	The YSH has witnessed domestic violence
28. Parental alcoholism/drug abuse	pald	The YSH's parent/parents abuses alcohol and/or drugs
29. Parental psychiatric morbidity	ppsy	The YSH's parent/parents suffer from a psychiatric disorder
30. Parental/sibling offending	poff	The YSH's parents or siblings have previous criminal convictions
31. Alcohol/drug abuse	alcdrug	The YSH abuses alcohol and/or drugs
32. Self-harm	sharm	The YSH displays self-harming behaviour this includes suicide attempts
33. Consenting sexual experience	sexexp	The YSH has experience of a consenting sexual experience
34. Not in full time education or	neduc	The YSH is not in full-time education or
employment		employment
35. Low-self esteem	lself	The YSH is described as having low self-esteem or low self-image
36. Paraphilic behaviours	parap	The YSH engages in paraphilic behaviours; this includes vampirism, wearing women's clothing
37. Animal cruelty	animal	The YSH is cruel to animals in either a sexual and/or violent manner

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Appendix (Continued)

Variable name	Abbreviated name	Definition
	manne	
38. Confused about sexuality	sexualit	The YSH reports that he/she is confused about their sexuality
39. Sex interest in children	sexchil	The YSH reports that he/she is sexually attracted to children
40. Inappropriate sexual boundaries	exbou	The YSH has experienced inappropriate sexual boundaries (e.g. parents having sex in front of YSH)
41. Firesetting	fire	The YSH set one or numerous fires