

Sexual knowledge and empathy: A comparison of adolescent child molesters and non-offending adolescents

Mette Kristensen Whittaker,¹ Jennifer Brown,^{1,*} Richard Beckett² & Contanze Gerhold²

¹*Department of Psychology, University of Surrey, Guildford, UK, and* ²*Adolescent Sexual Offender Project (ASAP), Department of Psychology, The Oxford Clinic, Littlemore Mental Health Centre, Oxford, UK*

Abstract *Despite a rapid growth in research interest and treatment facilities for adolescent sex offenders, understanding of how these adolescents differ from non-offending adolescents remains incomplete. This study contributes to knowledge of the distinguishing characteristics of offenders and focuses on levels of sexual knowledge and empathy that differentiates adolescent sex offenders and normative comparators. Data were collected from 55 male non-offending adolescents and compared to 221 male adolescent child molesters of a similar age who had attended a treatment clinic. Measures used were the Sexual Matters Questionnaire (ADOL) and the Victim Empathy Scale. The present study found that adolescent sexual offenders have less sexual knowledge and less victim empathy skills than non-offending adolescents. Results are discussed in terms of ethical, methodological and intervention implications.*

Keywords *Adolescent sex offenders; adolescent child molesters; sexual knowledge and beliefs; victim empathy*

Introduction

The past decade has seen a growth of research papers into adolescent sexual offending. Studies have focused variously on: raising awareness of the nature of sexually abusive behaviour perpetrated by children and adolescents (Erooga & Masson, 1999); describing the establishment of treatment facilities for adolescent sexual abusers (ASOs) (Becker, 1990); evaluating treatment (Edwards & Beech, 2004); and a developing theoretical interest in this group (Masson & Hackett, 2003). However, despite this research activity there remains a paucity of studies that attempt to examine distinctive features of young offenders, either because inferences are drawn from research on adult offenders or because studies lack appropriate control and/or comparison groups. In part, this difficulty has been compounded by the reluctance of ethics committees to give permission for sexually explicit questioning of normative samples of equivalent ages to offending adolescents (Farr, Brown & Beckett, 2004).

*Corresponding author.

The present study seeks further understanding of the distinctions between offenders and non-offenders by presenting findings of an empirical study comparing an adolescent sex offender group to a normative sample of equivalent age, describing their respective levels of sexual knowledge and empathy.

Adolescent sex offenders have been found to constitute a largely heterogeneous group (Becker, Harris & Sales, 1993). Nevertheless, research suggests that they are predominately white, male, in their middle to late teenage years (Masson & Erooga, 1999) and primarily target younger female victims (Beckett & Gerhold, 2002). Furthermore, a history of non-sexual delinquency (Boyd, Hagan & Cho, 2000), dysfunctional or abusive family backgrounds (Becker, 1998; Burton, Miller & Tai Shill, 2002; Davis & Leitenberg, 1987; Taylor, 2003) and social skill deficits (Boyd et al., 2000; Prentky & Knight, 1993) have also been associated with precocious sexual offending. In particular, problems with empathy have been established as a feature of sex offenders (Geer, Estupinan & Manguno-Mire, 2000). While much work has been devoted to the study of empathy deficits in adult sex offenders, there is a scarcity of similar research with adolescent sexual abusers (Beckett, 1999). Farr, Brown and Beckett (2004) found that rather than possessing a general empathy deficit, adolescent sex offenders had more focal empathy limitations which, when combined with deficits in their sense of masculinity, were associated with abusive sexual behaviour. The existing research suggests that an inability to empathize and a lack of empathic modelling may be major factors in the developmental backgrounds of ASOs (Ryan & Lane, 1997). Empathy training is being included increasingly in treatment programmes for this group of offenders (Monto, Zgourides, Wilson & Harris, 1994).

Sex education programmes are also used commonly in treatment interventions with both adult and adolescent sex offenders. Research suggests that lack of knowledge regarding sexual matters and deviant sexual beliefs may help explain sexually offending behaviour (Davis & Leitenberg, 1987). Timms and Goreczny (2002) included "lack of suitable sex education" (p. 6) in a list of common sex offender characteristics identified from their review of the existing literature. While various studies have found relatively low levels of sexual knowledge in adolescents (Hockenberry-Eaton & Richman, 1996; Mayock & Byrne, 2004), people with learning disabilities generally have been found to have even more limited knowledge (Galea, Butler, Iacono & Leighton, 2004).

Studies from the United Kingdom of adolescent sex offenders identify that between one-third and a half have some form of learning disability or significant educational problems (Erooga & Masson, 1999). O'Callaghan (2001) reports that learning disabled sexual offending adolescents receive less sex education and fewer opportunities to develop appropriate sexual expression than non-learning disabled adolescents. The "counterfeit deviance" hypothesis (Griffiths & Lunsky, 2003) suggests that sexual offences are precipitated in learning disabled young people by factors such as lack of sexual knowledge, poor social and heterosexual skills and limited opportunities to establish sexual relationships. Kaplan, Becker and Tenke (1991) propose that adolescent sex offenders tend to have deviant sexual knowledge and attitudes. Despite this acknowledgement and the implementation of sex education for adolescent sex offenders, empirical information regarding the extent or specific areas of their deficits in sexual knowledge, beliefs and attitudes remains sparse (Kaplan et al., 1991). From self-reports of young abusers, Ryan (2000) describes the range of sexual behaviours, from compulsive masturbation, attempts to expose or touch others' genitals, chronic preoccupation with sexually aggressive pornography, as well as coercive sexual contact. It may be inferred that adolescents engaging in such behaviours may have sexual knowledge which is distorted and inaccurate and, when combined with a lack of victim empathy, creates the potential for inappropriate sexual behaviour.

This suggestion resonates with the offence pathways model proposed by Hudson, Ward and McCormack (1999), in which distortion and self-regulation are seen as characterizing features of child molesters. In short, both empathy deficits and limited or deviant sexual knowledge could play their part in the development of sexually abusive behaviour. Both may have an impact on the adolescent's ability to form healthy and mutually rewarding social and intimate relationships. It is possible that limited levels of sexual knowledge may impact upon the cognitive perspective-taking component of empathic ability, and that an individual's lack of interest in the feelings of others, together with an increased motivation to gain sexual knowledge, precipitates premature and possibly abusive sexual behaviour.

This study seeks to contribute to the existing literature by comparing the responses of adolescent child molesters (ACMs) with non-offending controls on measures of victim empathy and sexual knowledge and beliefs, and to investigate the relationship between sexual knowledge and beliefs and victim empathy.

Method

Participants

The normative sample in this study consisted of 55 UK males aged 14–16 years [mean = 14.89, standard deviation (SD) = 0.685] recruited from a mainstream secondary school for boys in the South East of England. The catchment for this particular school draws pupils from the lower socio-economic groups and all ability levels. This matches well with the socio-economic status of adolescent sexual abusers, who have been identified predominantly in social classes 3–5 (Beckett, 1999). The boys were predominantly white.

The offending sample consisted of 221 adolescent males, all of whom had committed either incestuous or non-incestuous child sexual abuse offences. Child molesters were chosen in order to create a more heterogeneous sample of offenders (the victims of the remaining sexual offenders varied widely in age) and because the specific victim empathy vignettes employed in this study were designed to assess the victim empathy of child molesters. The offenders ranged in age from 14 to 16 years (mean = 15.06, SD = 0.772). A non-significant difference was found between the mean age of the non-offending adolescents (NOAs) and ACMs ($t = 1.514$, $df = 274$, $p < 0.1$). These participants were all recruited from the Adolescent Sexual Offender Project (ASAP). The ASAP was established in 1997 with the aim of developing and standardizing a uniform set of psychometric measures to assess adolescent abusers' personality, social functioning, offence-specific and developmental characteristics (Beckett & Gerhold, 2002). The majority of offenders are referred by specialist community statutory and voluntary projects/treatment centres in Great Britain and the Republic of Ireland. The participants in this sample completed their psychometric assessment prior to treatment. Twenty-nine per cent of the ASAP participants were described by referrers as having "mild/moderate learning difficulties" (not necessarily a low IQ), 61% having some form of behavioural problem in addition to the sexually abusive behaviour. Just over one-third (37%) would reach the diagnostic criteria for conduct disorder, 23% were described as delinquent, with 21% having committed a prior non-sexual offence, and 3% had perpetrated sexual abuse prior to their index offence. About half (48%) had experienced prior sexual abuse, 38% physical abuse, 49% had been emotionally abused or neglected and 42% had suffered multiple forms of abuse.

Of the offending sample a subset of 94 had completed the same victim empathy vignettes as the normative sample, because only two vignettes were distributed to those ACMs whose offences were similar to those described in the vignettes and, as such, only data collected from

these individuals were included in the empathy data analysis. For the sexual knowledge and beliefs comparison, all 221 offenders were included. An item-by-item analysis was undertaken of a random subset of 50 of the ACMs and compared to the normative sample. The data from the ACMs were obtained from the data bank held by the Adolescent Sexual Abuser Project (by the latter two authors of the present paper).

Measures

The measures used in this study are as follows.

The Sexual Matters Questionnaire (ADOL) is derived from the Sexual Knowledge and Beliefs and Social Sexual Desirability scales of the Multiphasic Sex Inventory (Adolescent Form; Nichols & Molinder, 1984). It consists of 24 statements addressing sexual knowledge and beliefs (SKB) and 35 statements designed to measure social sexual desirability (SSD) and denial versus openness about sex drives and interests. The response range consists of two possibilities: “true” or “false”. Correct answers receive a score of 1 and an incorrect answer scores 0. To obtain the total SKB and SSD scores, the answers from each scale are summed. As such, a high score on the SKB scale indicates accurate sexual knowledge and positive beliefs, and a high score on the SSD scale indicates openness regarding sexual interests rather than socially desirable responding or denial. The SSD scale produced an alpha coefficient of 0.88, indicating good internal consistency. In the current study the SKB scale produced an alpha coefficient of 0.48, suggesting poor internal consistency, so we caution interpretation of results using this measure. We decided to include the scale because it continues to form part of the Multiphasic Sex Inventory despite the fact that the authors of this measure found the scale to have low internal reliability and the whole scale produced an alpha coefficient of 0.77, which suggests that the scale as a whole had good internal consistency.

The Victim Empathy Scale was developed by Beckett and Fisher in 1991 and the scenarios described in Vignettes 2 and 6 were developed by Beckett. They both provide a short description and then request the participants to answer 30 questions thinking about how the “victim” in the scenario would feel about, and perceive, the situation described. The scenario on Vignette (2) reads:

A 15-year-old youth was asked to baby-sit for a nine-year-old girl. He was alone in the house with her while her parents had gone for a night out. While he was with her, he exposed himself to her. He then undressed her and tried to have sex with her.

Victim Empathy Vignette (6) reads:

A 16-year-old youth was asked to look after a nine-year-old boy while his parents had a night out. While he was alone with the boy, the youth showed the boy a ‘girlie’ magazine. He then exposed himself to the boy and tried to make the boy masturbate him.

The respondents are then asked to think about the victim in the scenario and answer 30 questions on a four-point Likert scale ranging from positive feelings to negative feelings. Answers were given a score of 0–3, with 0 indicating low empathy distortion and 3 indicating high empathy distortion. The “don’t know” responses were counted rather than scored and questions 16 and 17 were not included in the scoring. The victim empathy vignettes consisted of the same questions and response options, and as such both were scored in the same way. The data collected from the reduced sample on both the vignettes were pooled together and included in a reliability test. The resulting alpha coefficient was 0.8, suggesting good internal consistency.

Procedure

Ethical approval was secured from the University of Surrey and the participating school agreed for the measures to be distributed to boys in years 10 and 11. A package including a covering letter, an information sheet, a consent form, the two questionnaires and instructions for their completion, as well as a return envelope addressed to the contact person at the school, was distributed to parents through the school. Parents were required to give their consent. The participants were asked to provide their age but to otherwise remain anonymous, and to answer the questions without seeking help from others. The parents were advised in the covering letter that they or their son could seek further advice from either the contact person at the school, the researcher or supervisors involved with the project should any distress result from completion of the questionnaires. The data were collected in June 2003.

Results

Sexual knowledge and beliefs

For the SKB subscale a significant difference was found between the two groups ($t=4.587$, $df=72.104$, $p<0.0005$), with the non-offending adolescents (NOAs) answering more questions correctly (mean = 17.27) than the adolescent child molesters (ACMs) (mean = 13.46). A significant difference was also found between the two groups on the SSD scale ($t=2.578$, $df=103$, $p=0.011$), with the NOAs giving more socially desirable answers (mean = 23.80) than the ACMs (mean = 20.02) (see Table I).

Independent t -tests were conducted to investigate if there was a difference between the responses for each age group. On the SKB subscale no difference was found between those aged 14 and 15 years ($t=-1.419$, $df=75$, $p=0.16$), 15 and 16 years ($t=0.358$, $df=71$, $p=0.722$) or between the response of those aged 14 and 16 years ($t=-0.755$, $df=58$, $p=0.454$) (see Table I).

Furthermore, two one-way within-subjects analyses of variance (ANOVAs), one for ACMs and one for NOAs, were carried out to investigate if there was an effect of age on the answers provided on the SKB subscale. No significant effect of age was found for either group (see Table I).

No significant result emerged from the independent t -tests of the SSD of the three age groups. No significant effect of age was found for either group on the SSD subscale.

Table I. Mean scores on sexual knowledge subscales (SKB and SSD).

Age (years)	SKB					SSD				
	ACM		NOA		t -test sign	ACM		NOA		t -test sign
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
14	12.56	4.226	16.69	2.869	0.003	16.63	5.476	25.13	7.509	0.001
15	14.19	5.443	16.97	2.822	0.072	22.88	6.642	21.72	7.991	0.608
16	13.61	6.060	19.10	1.370	0.001	20.50	8.880	27.70	3.129	0.005
All	13.46	5.265	17.27	2.738	0.0005	20.02	7.520	23.80	7.487	0.011
ANOVA										
F	0.383		2.978			3.057		2.915		
Sign.	0.684		0.060			0.056		0.063		

Further analyses were carried out to investigate whether there was a correlation between age and the responses on the two subscales, and between the two subscales themselves. Non-significant correlations were found between age and SSD ($r=0.109$, $n=105$, $p=0.27$) and age and SKB ($r=0.083$, $n=105$, $p=0.398$). A significant positive correlation was found between SSD and SKB ($r=0.430$, $n=105$, $p<0.0005$).

An item-by-item analysis of the answers provided on the SKB subscale was carried out between a comparative subset of the offenders and the normative samples as shown in Table II.

Table II illustrates that on only two of the questions (1 and 14) did the majority of the NOAs provide the wrong answer, or give no answer at all. On question 10, only one person got the answer wrong and only two people failed to give the correct answer to question 24. The responses of the ACMs are somewhat different in that they gave the incorrect answer, or failed to provide an answer at all, on the same two questions as the NOAs as well as on a further seven items (3, 5, 12, 16, 31, 39 and 45). Just like the NOAs, the two items receiving the most correct responses by the ACMs were questions 10 (88%) and 24 (84%).

The offending adolescents were less likely than the normative comparators to know that a woman does not urinate through her clitoris ($\chi^2=8.747$, $df=1$, $p=0.003$), condoms may cause bruising ($\chi^2=3.824$, $df=1$, $p=0.05$), males may have an erection while asleep ($\chi^2=3.787$, $df=1$, $p=0.05$), AIDS cannot be caught just through having sex with many people ($\chi^2=6.174$, $df=1$, $p=0.013$), female arousal results in wetness of the vagina ($\chi^2=6.322$, $df=1$, $p=0.012$), touching the clitoris often leads to an orgasm ($\chi^2=7.180$, $df=1$, $p<0.01$) and why the penis becomes hard ($\chi^2=4.229$, $df=1$, $p=0.04$).

Table II. Item analysis of correctly identified answers on the SKB subscale of the sexual knowledge questionnaire.

Item	NOA Correct %	ACM Correct %
10: A blow job is a type of oral sex	98	88
24: A woman will not get pregnant if she has sex standing up	96	84
37: Female arousal results in wetness of the vagina	91	62**
21: Normal for males to have erection while asleep	89	70*
34: Females can have more than one orgasm during sex	84	66
7: Irregular orgasms in males could cause harm	82	74
39: Touching or rubbing the clitoris often leads to orgasm	82	50**
42: A big penis guarantees female orgasm	80	66
18: Genital warts are contagious	76	56
48: The penis gets hard because the inner bone gets stiff	76	54*
16: Condoms can often be tight enough to cause bruising	73	40*
29: AIDS can only be caught by having sex with many different people	73	48**
40: Sexual orgasm is the same as having a climax	73	60
3: A woman urinates through her clitoris	71	36**
12: Male circumcision results in more feeling for the man	71	46
51: Sperms die as soon as they come into daylight	71	64
57: Most men's penis are about 6 inches long when erect	65	64
58: The cap is a recognized method of contraception	62	54
5: The penis can get caught in the vagina during sex	60	48
31: Females who are on the pill take one pill per month	60	48
45: Thrush is a sexually transmitted disease	58	30
54: A woman cannot get pregnant during her period	56	54
1: The clitoris has a small shaft and head which is similar to the penis	40	42
14: Many males get hard nipples when they are sexually turned on	40	34

Item-by-item χ^2 analysis. * $p<0.05$; ** $p<0.01$.

Finally, a test of correlation was carried out to test for a relationship between SKB and the number of victims abused by the ACMs. A non-significant result was obtained ($r = -0.039$, $n = 198$, $p = 0.584$).

Empathy

Table III illustrates the empathy distortion error scores for the ACMs and the NOAs. The differences emerged as statistically significant ($t = 4.017$, $df = 140.75$, $p < 0.0005$) with the ACMs scoring higher on the empathy distortion error score (mean = 21.95) than the NOAs (mean = 14.39). There were further statistically significant differences between the number of "don't know" responses provided by each group ($t = 2.223$, $df = 147$, $p = 0.028$), with the ACMs providing more such responses (mean = 3.91, $SD = 5.459$) than the NOAs (mean = 1.98, $SD = 4.482$).

For Empathy Vignette 2, a significant difference was found ($t = 3.84$, $df = 63.616$, $p < 0.0005$), with the ACMs scoring higher on the empathy distortion error score (mean = 21.19) than the NOAs (mean = 11.60). Vignette 6 yielded a non-significant result ($t = 1.637$, $df = 75$, $p = 0.053$). There were no independent statistically significant differences between the responses on the two vignettes ($t = 1.761$, $df = 146$, $p = 0.080$).

A test of correlation between SSD and vignette score was conducted in an attempt to determine if social desirability may be implicated in participants' responses. No significant correlation emerged ($r = -0.105$, $n = 142$, $p = 0.213$), suggesting that social sexual desirability did not influence the answers provided in the questionnaires.

Finally, a test of correlation was conducted to investigate whether there was a relationship between the empathy distortion error score of both vignettes and the number of victims abused by the ASOs. A non-significant result emerged ($r = 0.063$, $n = 94$, $p = 0.547$).

Sexual knowledge and victim empathy

The hypothesis that there may be a relationship between sexual knowledge and beliefs and victim empathy was tested using the same reduced sample as that used for the empathy data analyses. There were no statistically significant correlations either when the total available sample was tested or when the offending and non-offending samples were tested separately.

The median scores for both sexual knowledge and beliefs (SKB) and victim empathy distortion error score (EmpDis) were calculated (SKB = 16, EmpDis = 15.24) and scores assigned to either a high or a low EmpDis group, and either a high SKB or low SKB score. Table IV illustrates the frequencies of the four typologies so created.

There was a statistically significant difference in the distribution of type membership ($\chi^2 = 34.614$, $df = 3$, $p < 0.0005$). The table illustrates that almost half (43.2%) the ACMs

Table III. Empathy distortion error scores.

Vignette	ACM		NOA		<i>t</i> -test sig.	N 'Don't know'		
	Mean	SD	Mean	SD		ACM	NOA	<i>t</i> -test sig.
2	21.19	13.888	11.60	6.893	0.0005	2.67 (SD = 3.45)	1.62 (SD = 3.31)	0.206
6	22.56	13.331	17.53	10.927	0.106	4.92 (SD = 6.51)	2.38 (SD = 5.55)	0.093
2 and 6	21.95	13.52	14.35	9.39	0.0005	3.91	1.98	0.028

Table IV. *Empathy/sexual knowledge combinations.*

Tyology	ACM	NOA	Total
Low SKB/High EmpDis (SKB \leq 16/EmpDis $>$ 15.24)	38 (43.2%)	4 (7.4%)	42 (29.6%)
High SKB/High EmpDis (SKB $>$ 16/EmpDis $>$ 15.24)	16 (18.2%)	16 (29.6%)	32 (22.5%)
Low SKB/Low EmpDis (SKB \leq 16/EmpDis $<$ 15.24)	25 (28.4%)	10 (18.5%)	35 (24.6%)
High SKB/Low EmpDis (SKB $>$ 16/EmpDis $<$ 15.24)	9 (10.2%)	24 (44.4%)	33 (23.2%)
Total	88 (100.0%)	54 (100.0%)	142 (100.0%)

have low sexual knowledge and beliefs combined with a high empathy distortion error score, compared to only 7.4% of the NOAs. Additionally, nearly half the NOAs (44.4%) were found to have high sexual knowledge and beliefs combined with a low empathy distortion error score, compared to only 10.2% of the ACMs.

Discussion

The SSD and the SKB subscale on the Sexual Matters (ADOL; Nichols & Molinder, 1984) questionnaire identified significant differences between the ACMs and the controls. The non-offenders were found to be both more knowledgeable than the offenders on sexual matters and to provide more socially desirable responses. The ACMs obtained higher empathy distortion scores than the NOAs. Although the correlation conducted between level of SKB and empathy skills emerged as non-significant, a clear distinction between the ACMs and the NOAs was observed when different combinations of high and low SKB and empathy distortion error scores were calculated. Given the low reliability of the sexual knowledge measure, these findings are offered as indicative but suggestive and warrant further empirical investigation. The offending adolescents were largely accounted for by the low knowledge/high empathy distortion and low knowledge/low empathy distortion combinations. This is possibly analogous to the different pathways found by Hudson, Ward and McCormack (1999) and may indicate the need for more subtly designed different treatment interventions for particular types of offenders.

Comparison of ACMs' and NOAs' sexual knowledge and beliefs produced a statistically significant result. The total SKB scores demonstrated that NOAs answered more questions correctly than the ACMs. This corresponds better with the suggestion that lack of sexual knowledge and deviant sexual beliefs are dynamic risk factors in sexual offending (e.g. Davis & Leitenberg, 1987; Timms & Goreczny, 2002). Although some researchers have failed to find support for this notion (e.g. Becker et al., 1986 in Davis & Leitenberg, 1987; Longo, 1982), the findings in this study appear to support the claim that ACMs do have deficits in sexual knowledge. It is striking that the ACMs were less aware of the biology of a girl's sexual arousal and enjoyment and also of sexual health protective behaviours. This difference could be due to differences in the quality and quantity of sexual education received by the two groups, or it could be due to a difference in actual and possibly distorted experience. A test of correlation was carried out to investigate whether those ACMs who had more than one victim were more or less knowledgeable than those who had only one victim. No relationship between sexual knowledge and beliefs and the number of victims emerged, suggesting that

sexual experience may not necessarily increase accurate sexual knowledge. Rock, Ireland and Reznick (2003) carried out a study aimed at examining the relationship between perceived knowledge about sex and adolescent sexual risk behaviours. They found that sexually experienced students who reported low perceived knowledge about sex had higher rates of high-risk sexual behaviours than other groups. As such, although ACMs may have more sexual experience than the pupils in the normative sample, lack of sexual knowledge may increase the likelihood of risky sexual behaviours. Furthermore, the sexual experience of the offending group may have been mainly inappropriate or abusive, therefore contributing to distorted beliefs and knowledge regarding healthy sexual behaviours.

We found no age effects with regard to sexual knowledge for either of our groups. The research literature is equivocal here in that Hockenberry-Eaton and Richman (1996) found no differences in respect of sexual knowledge by age, while Gordon, Schroeder and Abrams (1990) did find an age effect.

The normative sample in this study was recruited from a school which places emphasis on comprehensive sexual education. The responses from the SKB scale reflected this, with the majority of questions being answered correctly. There was little information available about the nature of sex education that the offending sample may or may not have received. More research might usefully be conducted to determine the sustainability of our findings and to investigate if this difference may be attributable to the quality and quantity of education provided, or is a more fundamental aspect of offenders' experiences and contributes to their deviant behaviours. Somers and Gleason (2001) found that not only was the source of sex education unrelated to amount of knowledge, but that less school-based knowledge and greater non-sibling sources of acquired knowledge was associated with more sexual behaviours. This leads us to suggest it is more likely that the source of deviant beliefs results from experiences rather than abstracted sexual knowledge as such. This could be of great importance when considering the role of sexual education in healthy development of psychosexual attitudes and could assist in early identification and intervention for children with problems. Furthermore, the findings in this study support the inclusion of sex education for adolescent sex offenders, as their knowledge is clearly deficient compared to the normative sample. The research literature suggests that learning disability may be implicated in sexual knowledge. We were unable to test this with any precision in the present study, as we had no details of the assessment of this in either of our samples.

A significant difference emerged between the two groups in their empathy distortion error score when data from both victim empathy vignettes were included. The ACMs were found to have a significantly higher victim empathy distortion error score than the NOAs. The victim empathy vignettes were self-report questionnaires, which might raise concern about the honesty of the responses. However, a non-significant correlation was found between the response set and social desirability, suggesting that the data were not contaminated by denial or socially desirable responding.

In our knowledge/empathy typology it was striking that the ACM were more likely to be typed as having low sexual knowledge and high empathy distortion, whereas there was a greater propensity for the normative controls be typed as having high knowledge and low empathy distortion. It may be that it is the combination that is critical rather than the levels *per se*. It is possible that the former offer the greater potential recidivism risk, and as such could be a useful addition to risk assessment. A test of this might be to examine the types of offending behaviours and see if this group have the more serious and aggressive behaviours. The appearance of four boys from the normative sample in the low knowledge and high empathy distortion group may be indicative of vulnerable adolescents who may require preventative intervention.

The concern with self-report data, such as that used in this study, is its validity and the extent to which it has been contaminated by a social-desirability response set. Due to this concern all the participants completed the SSD subscale on the Sexual Matters Questionnaire (ADOL; Nichols & Molinder, 1984), which not only measures social sexual desirability but also “denial versus openness” about sexual drives and interests. A significant difference was found between the two groups on the SSD subscale, with the NOAs providing more socially desirable responses than the ACMs. This may be an indirect measure of empathy, in that members of the offending group were less able to determine the socially desirable response. Alternatively, there may be a real difference in how much ACMs versus NOAs wish to comply with perceived social norms and morals.

Research has suggested that empathic abilities increase with age (Covell & Scalora, 2002), but in this study no such increase was found. This may be due to the relatively small span of ages of our participants.

Conclusion

It should be borne in mind that empirical support for the findings in this study is limited, and further research and exploration of the issues raised need to be conducted. The measures used in this study have yet to be standardized. The Sexual Matters (ADOL; Nichols & Molinder, 1984) distinguished between the ACMs and NOAs, but the SKB subscale was found to have relatively low internal reliability, and as such no firm conclusions regarding the sexual knowledge and beliefs of neither group should be drawn. There is a suggestion that those with learning disability have lower levels of sexual knowledge and that the latter are over represented in adolescent sexual offenders. We were unable to assess any learning deficiencies in either of our samples, which must remain an unresolved limitation of the study. None the less, some indicative differences were found between the two groups, suggesting that this area of research would benefit from more investigation into the depth of knowledge regarding sexual matters, and the development of standardized measures. The Victim Empathy Scale (Vignette 2 and Vignette 6) (Beckett & Fisher, 1991) distinguished well between ACMs and NOAs and had good internal reliability, but is in need of standardization. This study represents the first attempt to use these questionnaires with non-offending youths.

Part of the reasons for the methodological problems in this area of research is the difficulty in gaining ethical approval and research access to non-offending adolescents. Ethical approval for this study was obtained with great difficulty and restricted the way in which the research was carried out and the measures that were used. It is recognized that the explicit nature of the measures in this area touch upon some very sensitive issues. Much is to be learnt from such contact with both children and adolescents and could help advance knowledge about both normal and deviant sexual development and behaviour. However, such research can only be conducted if researchers are allowed access to both offending and non-offending adolescents. Sexual offences have serious consequences for the victims as well as the offenders, and research can lead to better risk prediction, prevention and treatment interventions.

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