

2010

# Developmental, individual and family characteristics of specialist, versatile, and short-duration adolescent sex offenders

Ian A. Nisbet  
*Southern Cross University*

Stephen W. Smallbone  
*Griffith University*

Richard Wortley  
*Griffith University*

---

## Publication details

Nisbet, IA, Smallbone, SW & Wortley, R 2010, 'Developmental, individual and family characteristics of specialist, versatile, and short-duration adolescent sex offenders', *Sexual Abuse in Australia and New Zealand*, vol. 2, no. 2, pp. 85-96.

The abstract and pdf of the published article reproduced in ePublications@SCU with the permission of Sexual Abuse in Australia and New Zealand

## **Developmental, Individual and Family Characteristics of Specialist, Versatile, and Short-Duration Adolescent Sex Offenders**

**Ian Nisbet**

School of Criminology and Criminal Justice, Griffith University, Australia

**Stephen Smallbone**

School of Criminology and Criminal Justice, Griffith University, Australia

**Richard Wortley**

School of Criminology and Criminal Justice, Griffith University, Australia

### **Abstract**

This article reports on developmental, individual and family characteristics of 108 adjudicated adolescent sexual offenders who had been referred to a specialised assessment and treatment service. A Principal Components Analysis of measures of developmental characteristics (abuse histories, conduct problems), individual characteristics (callous unemotional traits; externalising and internalising behaviours), and family functioning (parental involvement; parental supervision; positive parenting practices; inconsistent discipline and corporal punishment) yielded three main components. These components were designated Negative Environment, Positive Environment and Transgression. Three subgroups were identified on the basis of their criminal histories: specialist offenders ( $n = 47$ ); versatile offenders ( $n = 33$ ), and short-duration offenders ( $n = 28$ ). MANCOVA revealed a significant multivariate main effect for offender subtype. A significant univariate effect was found for Transgression. Results suggest that offence specialisation and versatility among adolescent sexual offenders may arise from somewhat different developmental pathways.

### **Introduction**

A considerable body of research shows that most adolescents who have committed sexual offences do not come to the attention of police for further sexual offences within the first 10 years of their adult lives (Allan, Allan, Marshall, & Kraszlan, 2003; Borduin, Schaeffer, & Heiblum, 2009; Langstrom, 2002; Nisbet, Wilson, & Smallbone, 2004; Sipe, Jensen, & Everett, 1998; Worling & Curwen, 2000). However, these studies also show that many of these same adolescents continue to commit nonsexual offences as young adults. Despite this evidence, sexual offending continues to be widely regarded as a specialised form of offending. Sex

Offender Registration and Community Notification laws, for example, have as their basis the assumption that sexual offending has a distinct etiology, involves a specific proclivity towards committing sexual offences, and is associated with a high risk of future sexual dangerousness (Zimring, 2004). This propensity to commit sexual offences is seen as being a stable and enduring characteristic of sexual offenders, leaving the community vulnerable to ongoing risk.

Notwithstanding this public policy stance, it is becoming increasingly clear that both adult and adolescent sexual offenders tend toward offence versatility rather than offence specialisation (Harris, Mazerolle, & Knight, 2009; Lussier, 2005; Seto & Lalumiere, 2005; van Wijk et al., 2006). Nisbet et al. (2004) found that 55% of their sample of adolescent sexual offenders had committed nonsexual offences prior to their index sexual offence, and as adults 61% received further convictions for nonsexual offences. In their study of adolescent sexual offenders, Ronis and Borduin (2007) reported that as many as 94% of those with peer or adult victims and 89% of those with child victims had also been adjudicated for nonsexual offences. These findings raise important questions about the extent to which sexual and nonsexual offending may share common causal antecedents.

Previous research has sought to address this question by comparing sexual and nonsexual juvenile offenders. In one review, van Wijk et al. (2006) noted many similarities in the two groups, but concluded that due to wide within-group variations clear and consistent conclusions regarding similarities and differences could not yet be drawn. The authors noted a number of methodological confounds in the literature, including the substantial number of subjects in reviewed studies who were incarcerated (generally more serious offenders), as well as the wide variability in the diagnostic instruments used. The authors noted the need

for more research into specific subgroups of offenders, especially those who have exclusively committed sexual offences and those who have committed both sexual and nonsexual offences.

Empirical research into offence specialisation and versatility among adolescent sexual offenders is by no means new. More than 65 years ago, Doshay (1943) reported a study in which 108 young males who had exclusively committed sexual offences ("primary", or "true" sex offenders) were compared with a "mixed" group of 148 young males who had committed both sexual and nonsexual offences on a range of individual, family and offence variables. The mixed group was more likely to have adverse home and family environments (e.g., low income and poor housing), and to have a history of "demoralising recreation" (e.g., excessive motion picture viewing), gang participation and school maladjustment. Conduct problems such as rebelliousness, gambling, alcoholism, conflict with family, destructiveness, sneakiness, temper tantrums and habitual lying were four to fifteen times more likely for the mixed (criminally versatile) group. Notwithstanding these differences, both groups engaged in as many and in the same kind of sex offences, and with similar forcefulness, wilfulness and violence. As adults, none of the primary group and eight (5.4%) of the mixed group had committed further sexual offences, whereas 2.8% of the primary group and 25% of the mixed group had committed further nonsexual offences.

More recent research in this area has continued to suggest that specialist and versatile offending patterns constitute a valid typological and clinical distinction among adolescents who have committed sexual offences. Butler and Seto (2002) compared 32 adolescents who had committed sexual offences with 48 criminally versatile offenders and 34 non-aggressive offenders. The sexual offender group was further broken down into a "sex-only" group (n = 22), who had committed exclusively sexual offences, and a "sex-plus" group (n = 10), who had also committed nonsexual offences. Groups were compared on constructs of risk of future delinquency, childhood conduct problems, current behavioural adjustment, and antisocial attitudes and beliefs.

Butler and Seto found that sex-only offenders had significantly fewer conduct problems in primary school than the sex-plus offenders, and that compared to all other groups, sex-only offenders had significantly fewer conduct problems from age 12. The groups differed on the Externalizing Behavior subscale of the Youth Self-Report, but not on the Internalizing Behavior subscale. Nonsexual offenders did not differ from sexual offenders on antisocial beliefs. However, compared with sex-only offenders, sex-plus offenders endorsed more antisocial attitudes and beliefs.

A large-scale Dutch study also compared sex-only and sex-plus adolescent offenders on offence and demographic characteristics (van Wijk, Mali, & Bullens, 2007). This study found the sex-plus offenders were significantly younger at their index offence than the sex-only offenders and the sex-plus group was more likely to contain offenders of non-Dutch origin.

Way and Urbaniak (2008) compared the personal and family histories of groups of adolescent sex offenders with prior delinquent behaviour (n = 72) and without prior delinquent behaviour (n = 80). The authors found the two groups to differ on the majority of variables measured in the study, including that those subjects with prior delinquent behaviours were older and had higher rates of childhood maltreatment and drug and alcohol abuse. They were also more likely to have caregivers with more substance abuse and more extensive criminal histories.

Although the specialist/versatile dichotomy of adolescent sex offenders has clinical validity, a number of questions arise regarding the onset and persistence of the sexual and nonsexual offending of these groups. Does the sexual offending of these two groups arise from similar or quite different pathways? Similarly, does the sexual offending of versatile sex offenders arise from similar or different pathways as their nonsexual offending?

The present study sought to address these questions by examining psychological, developmental and family characteristics of a group of young people who had sexually offended. This was undertaken in two steps; firstly by analysing the way in which these characteristics were related to each other among a sample of young people who sexually offended, and secondly by analysing the extent to which these characteristics differentiated specialist and versatile adolescent sex offenders. Specifically, differences were examined among those who were detected committing a sexual offence on only one occasion (short duration offenders), those who committed sexual offences on more than one occasion (specialist offenders), and those who committed both sexual and nonsexual offences (versatile offenders).

It was hypothesised that these three groups of offenders would be distinguished by a combination of psychological, developmental and family variables suggested in the literature. Specifically, it was hypothesised that:

1. Specialist sex offenders would be distinguished by having higher rates of sexual abuse victimisation, report higher levels of internalising problems and lower levels of parental involvement,
2. Versatile offenders would have higher rates of histories of conduct problems and report higher

levels of externalising problems and lower levels of parental monitoring.

3. Short duration sex offenders would report lower rates of abuse, report lower levels of both internalising and externalising problems and higher levels of parental involvement.

## Method

### Participants

Participants were 108 adjudicated young males ( $M = 14.63$  years;  $SD = 1.24$ ) who had been referred to a specialised assessment and treatment service in Queensland. All had either pleaded guilty to, or had been found guilty of, a sexual offence as a juvenile (aged 10 – 17 years) under the Queensland Criminal Code.

For the purposes of the present study, clients who identified as being of Aboriginal or Torres Strait Islander descent were classified as having an indigenous ethnic background. The majority of participants were from a non-indigenous ethnic background (74.1%;  $n = 80$ ), while the remainder were from an indigenous background (25.9%;  $n = 28$ ).

One participant had a previous official conviction for sexual offences prior to his referral and 30.6% ( $n = 33$ ) had official prior or concurrent convictions for nonsexual offences. The mean number of nonsexual offence charges for these participants was 19.9 ( $SD = 18.21$ ) and ranged from two to 78. All but two categories of offences classified under the Australian Standard Offence Classification (ASOC) system (Australian Bureau of Statistics, 1997) were present in the backgrounds of those participants with official prior or concurrent nonsexual offending. The two exceptions were homicide and related offences, and offences against justice procedures, government security and government operations. Thus there was considerable diversity of nonsexual offending among the participants of the study.

Table 1: Offences for which participants with prior or concurrent nonsexual offences were convicted ( $n = 33$ )

Offence category	Participants	%
Theft	23	70
Break and enter	22	67
Property damage	17	52
Public order offences	13	39
Traffic offences	13	39
Assault	12	36
Misc offences	11	33
Weapons offences	6	18
Robbery	4	12
Drug offences	4	12
Deception offences	3	9

*Note.* Some participants committed more than one category of offence

The mean number of sexual offence charges for participants was 3.17 ( $SD = 4.06$ ; range = 0<sup>1</sup>-31), and the mean number of sexual offence victims was 1.41 ( $SD = .74$ ; range = 1-4). The average age of the victim of the index sexual offence was 12.46 years ( $SD = 11.56$ ). Participants were unlikely to assault a stranger (14% of cases) or use excessive force (7% of cases).

The length of time that participants were known to have been sexually acting out was calculated from file information and clinical interviews. Some participants were known from self, parental or other report to have been participating in a range of sexual misbehaviours/offences for lengthy periods of time before they were charged with their index offences. The average length of time was 23.03 weeks ( $SD = 45.94$ , range = 0 - 260).

### Procedure

Demographic and offence data were provided on referral. During the assessment phase further psychometric data were collected. During assessment young people and their parents/caregivers were given the option of having personal information provided by them (including psychometric test results) used for research. Those who selected this option were required to give their informed consent. There were no incentives for participants to give their consent, nor were there any penalties for not giving consent for research participation. At the time of this research, of a potential pool of 144 participants 108 (75%) had provided research consent. A separate database containing the non-identifying details of these clients was created for the purposes of this study.

### Measures

#### Developmental characteristics

Developmental characteristics were coded from assessment and referral information. These were history of conduct problems, history of sexual abuse (as victim) and history of physical abuse (as victim). Variables regarding childhood abuse were dichotomously coded either from the child protection summary provided at referral, or from information provided by participants during clinical interviews.

A history of conduct problems was coded during intake assessment using the criteria for item 12 of the Juvenile Sex Offender Assessment Protocol II (J-SOAP) (Prentky & Righthand, 2003). These criteria are a persistent pattern of behavioural disturbance before the age of 10 characterized by (1) repeated failure to obey rules, (2) violating the basic rights of others, and

<sup>1</sup>One participant with fetish-type offences was charged with property, rather than sexual, offences.

(3) engaging in destructive and aggressive conduct at school, at home, and/or in the community. Although the J-SOAP is scored on a scale of 0, 1 or 2, these categories were collapsed for the purpose of this study into a 0/1 dichotomy denoting the presence or absence of conduct problems before age 10.

### Individual characteristics

Individual data were obtained from the Youth Self-Report (YSR; Achenbach & Rescorla, 2001), and the Antisocial Process Screening Device (APSD; Frick & Hare, 2001). The YSR is a self-report questionnaire that forms part of the Achenbach System of Empirically Based Assessment (ASEBA). The ASEBA provides a norm-based measure of young people's overall functioning from multiple perspectives (e.g., anxiety/depression, social problems, rule-breaking behaviour). Numerous studies have demonstrated the external validity, cross-cultural validity and reliability of these measures (Achenbach & Rescorla, 2001). T-scores from the Internalizing and Externalizing scales of the YSR were used in this study.

The APSD is a 20-item caregiver and self-report measure designed to screen for child and adolescent psychopathy. The APSD measures three aspects of psychopathic symptoms: callous-unemotional traits, narcissism and impulsivity. A self-report version of the APSD has been devised for use with older youths (age 12 to 18) and has been extensively used as a research tool with this population (Falkenbach, Poythress, & Heide, 2003; Lee, Vincent, Hart, & Corrado, 2003; Murrie & Cornell, 2002; Spain, Douglas, Poythress, & Epstein, 2004; Vasey, Kotov, Frick, & Loney, 2005). Similar to the YSR, item ratings on the APSD are either 0 (*not at all true*), 1 (*sometimes true*), or 2 (*definitely true*), e.g., "You lie easily and skillfully". Caputo, Frick and Brodsky (1999) used the APSD in a comparison of adolescent sex offenders with violent nonsexual offenders and non-contact offenders, with the sex offender group reporting significantly higher levels of callous-unemotional traits. The Callous Unemotional (CU) scale of the self-report version APSD was used in the current study.

### Family characteristics

Family data were obtained from the Alabama Parenting Questionnaire (APQ) (Shelton, Frick, & Wootton, 1996). The APQ is a 42 item caregiver and youth self-report measure designed to tap dimensions of parenting known to be associated with conduct problems in children. It assesses five parenting constructs: parental involvement; positive parenting; poor monitoring/supervision; inconsistent discipline; and corporal punishment. These constructs are measured by responses to a number of statements on a five-point Likert scale ranging from *never, almost never,*

*sometimes, often, always*. The APQ has been shown to possess adequate internal consistency, construct validity, and good test-retest stability in use with the parents of Australian children (Dadds, Maujean, & Fraser, 2003). The psychometric properties of a German translation of the child version of the APQ was examined by Essau, Sasagawa and Frick (2006) with a large ( $n = 1219$ ) community sample of school children aged 10-14. This study confirmed the factorial validity of the self-report version of the APQ, with an alpha coefficient of .65 for the total APQ score and alpha coefficients ranging from .54 to .83 for the subscales. The self-report version of the APQ was used in this study.

## Results

### Developmental, Individual and Family functioning

Developmental, individual and family functioning characteristics are set out in Table II below. Developmental characteristics were history of conduct problems, history of sexual abuse (as victim) and history of physical abuse (as victim). Each of these variables was coded dichotomously. Individual characteristics are presented as T-scores from the Internalizing and Externalizing scales of the YSR and mean scores for the CU scale of the APSD. Family characteristics presented are mean scores from the Alabama Parenting Questionnaire.

Table 2: Developmental, Individual and Family characteristics of participants

Characteristic	M	(SD)	%
<b>Psychological characteristics</b>			
Internalizing T-score	57.64	(9.73)	
Externalizing T-score	59.48	(10.39)	
Callous-Unemotional	3.93	(1.68)	
<b>Developmental characteristics</b>			
Conduct problems			41.7
Sexual abuse			8.3
Physical abuse			26.9
<b>Family characteristics</b>			
Parental involvement	54.07	(15.59)	
Poor supervision and monitoring	27.08	(7.13)	
Positive parenting techniques	19.49	(4.64)	
Inconsistent discipline	15.10	(4.31)	
Corporal punishment	5.44	(2.40)	

*Characteristics of specialist and versatile adolescent sex offenders*

Table 3: Correlation matrix of variables

	Internalising T score	Externalising T score	Callous unemotional	Hx conduct problems	Hx sexual abuse	Hx physical abuse	Parental involvement	Poor monitoring	Positive parenting	Inconsistent discipline
Externalising T score	0.53*									
Callous unemotional	0.12	0.26*								
Hx conduct problems	0.08	0.31*	0.20							
Hx sexual abuse	-0.06	0.05	0.11	0.23*						
Hx physical abuse	-0.03	0.23*	0.06	0.22*	0.04					
Parental involvement	0.00	-0.22*	-0.25*	0.00	0.15	-0.18				
Poor monitoring	0.36*	0.59*	0.27*	0.29*	0.08	0.12	0.04			
Positive parenting	0.01	-0.16	-0.35*	0.03	0.15	-0.12	0.57*	-0.12		
Inconsistent discipline	0.27*	0.47*	0.18	0.17	0.06	0.03	0.19	0.58*	0.11	
Corporal punishment	0.10	0.27	0.12	0.07	-0.01	0.04	0.03	0.19	-0.10	0.39*

\*Correlation is significant at the  $p < .01$  level

Histories of conduct problems among participants were common. A confirmed history of sexual abuse was relatively uncommon but just over one in four participants had a confirmed history of physical abuse. The mean T-scores of participants are below the clinical range (64+) for both the internalizing and externalizing scales of the YSR. There are currently no normative data for the CU scale of the self-report version of the APSD or the subscales of the APQ.

**Principal Components Analysis**

Developmental, individual and family characteristics data were subjected to principal components analysis (PCA) using SPSS Version 11.0 for Macintosh. Prior to performing PCA the suitability of data for factor analysis was assessed. Missing data were noted for the Alabama Parenting Questionnaire (13%) and the Youth Self-Report (4%). Mean substitution was used to correct for missing data. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklun value was .67, exceeding the recommended value of .60 (Kaiser, 1970, 1974) and the Bartlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix.

The correlation matrix is presented in Table III. The Internalizing and Externalizing scales of the YSR were significantly correlated with each other, and were both significantly correlated with the Poor Monitoring and Inconsistent Discipline scales of the APQ. The CU scale of the APDS was significantly correlated with the Externalizing scale of the YSR and the Poor Monitoring scale of the APQ. It was also significantly and inversely correlated with the Positive Parenting and Parental Involvement scales of the APQ. History of conduct problems was significantly correlated with sexual abuse and physical abuse histories, as well as the Poor Monitoring scale of the APQ and the Externalizing scale of the YSR.

Principal components analysis yielded four components with eigenvalues exceeding 1, explaining 26.11%, 17.03%, 11.78%, and 9.38% of the variance respectively. An inspection of the scree plot revealed a break after the fourth component. Using Catell’s (1966) scree test, it was decided to retain four components for further investigation.

Parallel Analysis (Horn, 1965) was used to compare the eigenvalues of the four components with a randomly generated data matrix of the same size (11 variables x 108 respondents) using Monte Carlo PCA for Parallel Analysis (Watkins, 2000). The practice of comparing the size of eigenvalues with those of a randomly generated data set of the same size is considered to be the most accurate way of identifying the correct number of components to retain (Zwick & Velicer, 1986). Using this method, only those

components with eigenvalues that exceed the corresponding values from the random data set are retained. The results of Parallel Analysis are displayed in Table 4.

Table 4: Results of Parallel Analysis

Component number	Actual eigenvalue from PCA	Criterion value from parallel analysis	Decision
1	2.87	1.55	Accept
2	1.87	1.38	Accept
3	1.28	1.26	Accept
4	1.03	1.16	Reject
5	.97	1.06	Reject

As the criterion value for the fourth component was larger than the actual eigenvalue from the PCA it was decided to re-run the PCA and specify a three-factor solution. Table 5 presents the resulting component matrix with the loadings of each of the items on the four components. The majority of items loaded on Component 1 from the PCA, with strong loadings (above .4) also noted on Components 2 and 3.

Table 5: Component matrix for 3 component solution of PCA

Item	Component		
	1	2	3
Externalising T Score	0.83		
Poor monitoring	0.80		
Inconsistent discipline	0.69	0.41	
Internalizing T Score	0.55		-0.38
Callous unemotional	0.48	-0.37	
Corporal punishment	0.40		
Parental involvement		0.85	
Positive parenting		0.84	
History of sexual abuse			0.66
History of conduct problems	0.45		0.60
History of child abuse (nonsexual)			0.46

To aid in the interpretation of these components, varimax rotation was performed. The rotated solution revealed the presence of a number of strong loadings and all variables loading substantially on only one component. The three-component solution explained a total of 54.92% of the variance, with Component 1 contributing 23.39%, Component 2 contributing 17.75% and Component 3 contributing 13.79%. Table VI sets out the rotated component matrix.

Component 1 consisted of poor Parental Monitoring and Supervision (.76), Inconsistent Discipline (.79) and Corporal Punishment (.48) from the APQ and the

Internalizing (.67) and Externalizing (.75) T-scores of the YSR. This component was designated as *Negative Environment*, as it appeared to correspond to a number of characteristics that would be associated with adverse circumstances in which a young person may grow and develop.

Component 2 consisted of Positive Parenting (.84), Parental Involvement (.85) and Callous-Unemotional traits (-.49). This component was designated as *Positive Environment*, as it appeared to correspond to a number of characteristics that would be associated with favorable circumstances in which a young person may grow and develop.

Component 3 consisted of History of conduct problems (.73), History of child sexual abuse (.69) and History of physical abuse (.49). This component was designated as *Transgression*, as it appeared to group together examples of ways in which participants had been transgressed against and had also become transgressors.

Table 6: Rotated Component Matrix

Item	Component		
	1	2	3
Inconsistent discipline	0.79		
Poor monitoring and supervision	0.77		
Externalising T Score	0.75		
Internalising T Score	0.67		
Corporal punishment	0.48		
Parental involvement		0.85	
Positive parenting		0.84	
Callous Unemotional		-0.49	
History of Conduct problems			0.73
History of sexual abuse			0.69
History of physical abuse			0.49

### Hypothesis testing

In order to test differences in offence patterns on these components, offence histories were used to place participants in one of three mutually exclusive groups. Participants who had no previous or concurrent

nonsexual offences and whose index sexual offence had a duration of greater than one week, or who had a history of sexual behaviour problems, were designated “specialist sex offenders”. Those participants who had either previous or concurrent convictions for nonsexual offences at the time of sentencing for their index sexual offence(s) were designated as “versatile offenders”. Those participants who had no previous or concurrent nonsexual offence history and whose official records suggested that their index sexual offence(s) occurred on a single occasion, or whose duration of sexual offending lasted for less than a week and had no history of sexual behaviour problems were designated “short duration sex offenders”.

After this initial sorting, the groupings of participants who had an official record of concurrent nonsexual offences at the time of sentencing for their index sexual offence (12%, n = 13) was reviewed. This review revealed that the nonsexual offences of 10 of these participants directly related to their index sexual offence. For example, a number of participants had been convicted of offences such as physical assault, burglary and deprivation of liberty that occurred during the commission of their index sexual offence(s). Based on these offence histories, 10 participants (9%) were reclassified as short duration or specialist offenders, while three were retained as versatile offenders.

The largest group was the specialist offenders (n = 47), followed by the versatile offenders (n = 33) and short-duration offenders (n = 28). Versatile offenders were significantly more likely than the other two groups to have offended against peers or adults, with 36.4% victimising a peer or adult, compared to 17.9% of short-duration offenders and 10.9% of the specialist offenders,  $\chi^2(2, n = 107) = 7.82, p < .05$ .

Demographic details of these offender groups are presented in Table 7. There were no significant differences between the three groups in age at the time of the index sexual offence  $F(2, 105) = 4.13, p = .66$ . This finding is important because it suggests that the sexual offending of this group was not related to a different point in their developmental or criminal trajectory. A significantly larger proportion (51.5%) of the versatile offenders were from an indigenous background, compared to only 12.8% of the specialist offenders and 21.4% of the short duration sex offenders,  $\chi^2(2, n = 108) = 13.28, p = .001$ . For this reason, it was decided to use indigenous status as a covariate in the subsequent analysis.



Table 7: Means (SDs) of age of participants and percentages of indigenous participants by offender subtype

Demographic details	Short duration sex offenders (n = 28)			Specialist sex offenders (n = 47)			Sex-plus offenders (n = 33)		
	M	SD	%	M	SD	%	M	SD	%
Age at index offence	14.61	1.29		14.53	1.32		14.79	1.11	
Proportion of Indigenous participants			21.4			12.8			51.5

### Multivariate analysis

Multivariate analysis of covariance (MANCOVA) was selected to test whether mean differences on the results of the principal components analysis revealed significant between-group differences.

Preliminary assumption testing for multivariate analysis was conducted to check for normality, linearity, univariate and multivariate outliers. No threats to the assumptions for multivariate analysis were identified. All statistical analyses were carried out using SPSS for Macintosh 11.0.

### Design

A total of 3 dependent variables were used: Negative Environment, Positive Environment and Transgression.

Offender group was entered as a fixed factor in the MANCOVA, while indigenous status was entered as a co-variate due to the disproportionate number of indigenous youth in the versatile offender group.

### Analysis

#### Main effects

There was a significant multivariate main effect for offender type,  $F(3, 104) = 4.28, p < .001$ ; Wilks' Lambda = .79; partial eta squared = .11.

#### Univariate effects

When the results for the 3 dependent variables were considered separately, one variable reached significance: Transgression,  $F(2,104) = 12.39, p < .001$ ; partial eta squared = .19.

Partial eta-squared is defined as the proportion of total variance attributable to the factor, partialling out (excluding) other factors from the total non-error variance (Pierce, Block, & Aguinis, 2004). Inspection of the partial eta squared score reveals the major effect for offender group to be from the Transgression component, with this factor accounting for 19% of the total variance.

#### Pairwise comparisons

Versatile offenders were significantly different from both other groups ( $p < .001$ ) in relation to their higher scores on the Transgression component. This component was a combination of scores on their history of sexual and physical abuse, as well as having a history of conduct problems. Versatile offenders were

significantly more likely than either of the other groups to have both been transgressed against, as well as to become transgressors themselves. It was this, more than any other combination of variables that distinguished this group from the other groups.

### Discussion

This study compared specialist, versatile, and short-duration adolescent sexual offenders on a range of developmental, individual and family characteristics. Previous research has suggested that offence specialisation and versatility represents a valid typological distinction within this population. Additionally, the study sought to investigate possible differences within the specialist group by further categorising this group on the basis of duration of their sexual offending.

Overall, there were few differences between the three groups on demographic characteristics. The only significant demographic difference between the three groups was on indigenous status, with versatile offenders more likely to be from an Australian indigenous background. This finding is consistent with a recent study from Holland in which the sex-plus (versatile) group contained a larger proportion of non-Dutch offenders than the sex-only (specialist) group (van Wijk, Mali, & Bullens, 2007).

Evidence of the over-representation of minority youth in the criminal justice system is well established (Kenny & Lennings, 2007). For example, it has been observed that in New South Wales, indigenous juveniles are 21 times more likely to be in juvenile detention centres than non-indigenous youth (Walker & McDonald, 1995). Similarly, they are likely to receive significantly harsher penalties when compared to their Anglo-Australian counterparts facing the same charges (Gallagher & Poletti, 1998). It is considered likely, therefore, that the over representation of indigenous young people within the versatile group may be an artefact either of their greater exposure to social and personal adversity, or of their greater likelihood of detection, charging and sentencing, rather than suggesting racially oriented explanations for delinquency and sexual aggression.

The results of the principal components analysis demonstrated the association between poor parenting practices and higher self-reported levels of both internalising and externalising behaviours. Similarly, positive parenting practices were inversely correlated with self-reported callous-unemotional traits. Although there were significant differences between the three groups of offenders on the combined dependent variables, only one component, *Transgression*, produced a significant univariate main effect. Versatile offenders were significantly different from the other groups on the *Transgression* component, which contained elements of abuse victimisation (physical and sexual) as well as abuse perpetration (conduct problems). This group also had significantly more adult victims than either of the other groups.

These results are consistent with the findings of Butler and Seto (2002) that versatile sexual offenders had significantly more conduct problems in primary school than specialist sexual offenders. They are also consistent with a meta-analysis of 24 independent studies comparing adolescents who had sexually offended with adolescent nonsexual offenders (Seto & Lalumiere, 2005). In this meta-analysis it was noted that the general pattern of adolescent sexual offenders having fewer conduct problems than non-sex offenders obscured a difference between those who targeted peers or adults and those who target children. Studies directly comparing these two groups on measures of conduct problems showed a non-significant tendency for those with adult victims to have more conduct problems than those who offended against children. Other research, however, has failed to find support for distinguishing between the two groups, instead finding a number of common problems but no problems specific to a particular type of sexual offending (Ronis & Borduin, 2007).

It was hypothesised that specialist sex offenders would be distinguished by having a higher rate of sexual abuse victimisation, report higher levels of internalising problems and lower levels of parental involvement. It was further hypothesised that versatile offenders would have a higher rate of histories of conduct problems and report higher levels of externalising problems and lower levels of parental monitoring, and that short duration sex offenders would report lower rates of abuse, report lower levels of both internalising and externalising problems and higher levels of parental involvement. Finally, it was hypothesised that short duration sex offenders would report lower rates of abuse, report lower levels of both internalising and externalising problems and higher levels of parental involvement.

These hypotheses were not supported. The results of the principal components analysis yielded three factors that were slightly different to those expected from the

literature. Contrary to the hypotheses, both internalising and externalising scores were related more strongly to each other than to sexual abuse and physical abuse. This resulted in a slightly different composition of components.

The result of the principal components analysis, however, was consistent with the literature, particularly with regard to the impact of parenting styles (e.g. Burt, Simons, & Simons, 2006). The analysis demonstrated the association between poor parenting practices and higher self-reported levels of both internalising and externalising behaviours (Negative Environment). Similarly, positive parenting practices were inversely correlated with self-reported levels of callous-unemotional traits (Positive Environment). Both sexual abuse and physical abuse were related to each other and also to conduct problems (*Transgression*). Again, this result was consistent with the literature (Wilson, Smith Stover, & Berkowitz, 2009).

It may have been expected that these components would match the three offender groups, with versatile offenders scoring higher on Negative Environment, specialist offenders scoring higher on *Transgression* and Short Duration offenders scoring higher on Positive Environment. Although there were significant differences between the three groups of offenders on the combined dependent variables, only one component, *Transgression*, produced a significant univariate main effect. Contrary to expectations, versatile offenders were significantly different to both other groups on the *Transgression* component, however they did not have significantly higher scores than the two other groups on the Negative Environment component.

Whilst it may come as no surprise that physical and sexual abuse are correlated with each other as well as with conduct problems in children and criminal versatility in adolescence, it is perhaps more surprising that there were no significant differences between the three groups on the two other components of positive and negative environment. Specifically, the versatile group did not have significantly higher scores than the two other groups on the Negative Environment component.

Results from this study also suggest that the duration of sexual offending is not significantly associated with either a history of abuse or a positive or negative family environment. In this study, short duration sex offenders were not significantly more likely to come from a positive family environment and specialist sexual offenders were not significantly more likely to come from either a negative family environment or a background of abuse. The hypothesis of the specialist group containing a large proportion of better functioning and non-deviant adolescents was therefore not supported, as neither of these groups significantly

differed from each other on any of the three identified components.

Taken together, the present results confirm offence specialisation and versatility as a valid typological distinction among adolescents who have sexually offended, as well as suggesting offence specialisation and versatility among adolescent sexual offenders may arise from different developmental paths. Consistent with Ronis and Borduin (2007), Seto and Lalumiere (2005) and Van Wijk, Mali, & Bullens (2007), the present findings point to the importance of considering the contribution of a general delinquency factor in our understanding of the etiology of adolescent sexual offending and its treatment. The sexual offending of the versatile group in this study appears to be a continuation of an earlier propensity for disregarding rules and personal boundaries. As such, these young people may require greater levels of supervision and reinforcement for remaining within boundaries, rather than an intervention primarily aimed at correcting distorted beliefs about sexuality. It is unclear from this study what developmental pathways may lead to the sexual offending of the specialist groups, but the study does raise the question of whether sexual offences should be thought of as having a distinct "cause" or whether in many cases they are simply another way of expressing antisocial conduct.

There are a number of limitations to this study. The use of self-report measures is an acknowledged limitation and means that the data is reliant on the accuracy of the self-perception of participants. The use of self-report measures is also vulnerable to demand characteristics, impression management or common method variance. Additionally, all participants gave consent to have their data used for research, while a further 25% of possible participants refused to be involved in research. It is therefore impossible to quantify the extent of a "volunteer effect" that may have influenced the results. It is also possible that there were significant differences between the three offender groups but the sample size was insufficient to produce the statistical power required to detect the effect of group membership.

Other limitations of the study include the absence of additional comparison groups. The addition of a nonsexually offending group or a non-forensic control group would enable further comparisons to be made with the specialist and versatile groups, allowing for examination of the degree to which versatile adolescent sex offenders differ from nonsexual adolescent offenders and the extent to which specialist offenders differ from non-forensic controls.

Future research clarifying these issues has the potential to lead to more tailored intervention programs for specialist and versatile adolescent sex offenders, perhaps resulting in a decrease in nonsexual as well as

sexual recidivism. Additionally, clarification of these issues may also result in a more targeted approach to offender registration and community notification efforts and a more efficient allocation of resources in line with the principle of risk and need. Most importantly, further research on the developmental pathways of adolescent sexual offending is needed to inform primary and secondary prevention strategies.

## References

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms & profiles*. Burlington: ASEBA.
- Allan, A., Allan, M. M., Marshall, P., & Kraszlan, K. (2003). Recidivism among male juvenile sexual offenders in Westren Australia. *Psychiatry, Psychology and Law, 10*(2), 359-378.
- Australian Bureau of Statistics. (1997). *Australian Standard Offence Classification* Canberra: Australian Bureau of Statistics. Commonwealth Government Printing.
- Bartlett, M. S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society, 16 (Series B)*, 296-298.
- Borduin, C. M., Schaeffer, C. M., & Heiblum, N. (2009). A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: Effects on youth social ecology and criminal activity. *Journal of Consulting and Clinical Psychology, 77*(1), 26-37.
- Burt, C. H., Simons, R. L., & Simons, L. G. (2006). A longitudinal test of the effects of parenting and the stability of self-control: Negative evidence for the general theory of crime. *Criminology, 44*(2), 353-396.
- Butler, S. M., & Seto, M. C. (2002). Distinguishing two types of adolescent sex offenders. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(1), 83-90.
- Caputo, A. A., Frick, P. J., & Brodsky, S. L. (1999). Family violence and juvenile sex offending: the potential mediating role of psychopathic traits and negative attitudes toward women. *Criminal Justice and Behavior, 26*(3), 338-356.
- Cattell, R. B. (1966). The scree test for number of factors. *Multivariate Behavioral Research, 1*, 245-276.
- Dadds, M. R., Maujean, A., & Fraser, J. A. (2003). Parenting and conduct problems in children: Australian data and psychometric properties of the Alabama Parenting Questionnaire. *Australian Psychologist, 38*(3), 238-241.
- Doshay, L. J. (1943). *The Boy Sex Offender and His Later Career*. Montclair, New Jersey: Patterson Smith.
- Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama parenting questionnaire. *Journal of Child and Family Studies, 15*(5), 597-616.

- Falkenbach, D. M., Poythress, N. G., & Heide, K. M. (2003). Psychopathic features in a juvenile diversion population: Reliability and predictive validity of two self-report measures. *Behavioral Sciences and the Law, 21*, 787-805.
- Frick, P. J., & Hare, R. D. (2001). *The anti-social process screening device*. Toronto: Multi-Health Systems.
- Gallagher, P., & Poletti, P. (1998). *Sentencing Disparity and the Ethnicity of Juvenile Offenders*. Sydney: Judicial Commission of NSW.
- Harris, D. A., Mazerolle, P., & Knight, R. A. (2009). Understanding male sexual offending: A comparison of general and specialist theories. *Criminal Justice and Behavior, 36*, 1051-1069.
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika, 30*, 179-185.
- Kaiser, H. (1970). A second generation little jiffy. *Psychometrika, 35*, 401-415.
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika, 39*, 31-36.
- Kenny, D. T., & Lennings, C. J. (2007). Cultural group differences in social disadvantage, offence characteristics, and experiences of childhood trauma and psychopathology in incarcerated juvenile offenders in NSW, Australia: Implications for service delivery. *Psychiatry, Psychology and Law, 14*(2), 294-305.
- Langstrom, N. (2002). Long-term follow-up of criminal recidivism in young sex offenders: Temporal patterns and risk factors. *Psychology, Crime and Law, 8*(1), 41-58.
- Lee, Z., Vincent, G. M., Hart, S. D., & Corrado, R. R. (2003). The validity of the antisocial process screening device as a self-report measure of psychopathy in adolescent offenders. *Behavioral Sciences and the Law, 21*, 771-786.
- Lussier, P. (2005). The criminal activity of sexual offenders in adulthood: Revisiting the specialization debate. *Sexual Abuse: A Journal of Research and Treatment, 17*(3), 269-292.
- Murrie, D. C., & Cornell, D. G. (2002). Psychopathy screening of incarcerated juveniles: A comparison of measures. *Psychological Assessment, 14*(4), 390-396.
- Nisbet, I. A., Wilson, P. H., & Smallbone, S. W. (2004). A prospective longitudinal study of sexual recidivism among adolescent sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 16*(3), 223-234.
- Pierce, C. A., Block, R. A., & Aguinis, H. (2004). Cautionary note on reporting eta-squared values from multifactor ANOVA designs. *Educational and Psychological Measurement, 64*(6), 916-924.
- Prentky, R., & Righthand, S. (2003). *Juvenile sex offender assessment protocol II: manual*. Bridgewater, MA.
- Ronis, S. T., & Borduin, C. M. (2007). Individual, family, peer and academic characteristics of male juvenile sexual offenders. *Journal of Abnormal Child Psychology, 35*(2), 153-163.
- Seto, M. C., & Lalumiere, M. L. (2005). Conduct problems and juvenile sexual offending. In H. E. Barbaree, W. L. Marshall & S. M. Hudson (Eds.), *The juvenile sex offender* (pp. 166-188). New York: Guilford Press.
- Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-aged children. *Journal of Clinical Child Psychology, 25*(3), 317-329.
- Sipe, R., Jensen, E. L., & Everett, R. S. (1998). Adolescent sexual offenders grown up: recidivism in young adulthood. *Criminal Justice and Behavior, 25*, 109-124.
- Spain, S. E., Douglas, K. S., Poythress, N. G., & Epstein, M. (2004). The relationship between psychopathic features, violence and treatment outcome: The comparison of three youth measures of psychopathic features. *Behavioral Sciences and the Law, 22*, 85-102.
- van Wijk, A., Mali, S. R. F., & Bullens, R. A. R. (2007). Juvenile sex-only and sex-plus offenders: An exploratory study on criminal profiles. *International Journal of Offender Therapy and Comparative Criminology, 51*(4), 407-419.
- van Wijk, A., Vermeiren, R., Loeber, R., Hart-Kerkhoffs, L., Doreleijers, T., & Bullens, R. (2006). Juvenile sex offenders compared to non-sex offenders: A review of the literature 1995-2005. *Trauma, Violence, & Abuse, 7*(4), 227-243.
- Vasey, M. W., Kotov, R., Frick, P. J., & Loney, B. R. (2005). The latent structure of psychopathy in youth: a taxometric investigation. *Journal of Abnormal Child Psychology, 33*(4), 411-429.
- Walker, J., & McDonald, D. (1995). The overrepresentation of indigenous people in custody in Australia. *Australian Institute of Criminology Trends & Issues in Crime & Criminal Justice, 47*, 1-6.
- Watkins, M. W. (2000). Monte Carlo PCA for parallel analysis. State College, PA: Ed & Psych Associates.
- Way, I., & Urbaniak, D. (2008). Delinquent histories of adolescents adjudicated for criminal sexual conduct. *Journal of Interpersonal Violence, 23*(9), 1197-1212.
- Wilson, H. J., Smith Stover, C., & Berkowitz, S. J. (2009). Research review: The relationship between childhood violence exposure and juvenile antisocial behaviour: a meta-analytic review. *The Journal of Child Psychology and Psychiatry, 50*(7), 769-779.
- Worling, J. R., & Curwen, T. (2000). Adolescent sexual offender recidivism: Success of specialized treatment and implications for risk prediction. *Child Abuse and Neglect, 24*(7), 965-982.
- Zimring, F. E. (2004). *An American Tragedy: Legal responses to adolescent sexual offending*. Chicago: University of Chicago Press.

*Characteristics of specialist and versatile adolescent sex offenders*

Zwick, W. R., & Velicer, W. F. (1986). Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*, *99*, 432-442.