A personality-based classification of a community sample of male adolescent sex offenders using the Millon Adolescent Clinical Inventory (MACI)

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ABSTRACT

A personality-based classification of an Auckland, New Zealand community-based sample of 298 male adolescent sex offenders was conducted using cluster analysis of the Personality Pattern scales of the Millon Adolescent Clinical Inventory (MACI) scores. Three personality-based profile types were identified: a detached and socially isolated type \( n=97 \), an antisocial, offending supportive type \( n=73 \) and a third type with few clinically elevated personality characteristics \( n=128 \). Further analyses resulted in significant differences among the personality-based profiles on the MACI subscales that measured response styles, adolescents’ concerns and clinical problems. Offender, offence, and victim characteristics were recorded from a retrospective file review. The results of this study provide support for high rates of previous victimisation, family dysfunction, social isolation, substance abuse, and engagement in other types of offending in male adolescent sex offenders. Furthermore, this study supports the heterogeneity of male adolescent sex offenders on personality-based and psychopathology characteristics. Although there were some emerging relationships of victim selection with the personality-based profile types, none of the analyses reached statistical significance. Furthermore, few meaningful statistically significant relationships with the profile types and offender or offence characteristics were found. This may be due to the nature of the adolescent developmental stage, whereby behaviour is fluid and persistent patterns are yet to be fully established. Alternatively, relationships of offender, offence, and victim characteristics with personality-based profiles may not exist, or are difficult to tease apart. The current research is discussed regarding personality-based interventions. The study’s strengths and limitations is also discussed.
ACKNOWLEDGEMENTS

To the sun that warms my spirit, to the waters that cool my rage, to the winds that steer my steps, to the earth that keeps me here. Thank you.

To my mother, thank you for endurance and acceptance.

To my father, thank you for passion and wonder though “I struggle to find any truth in your lies”, (Mumford & Sons, 2009, track 10).

To my brothers and sisters, thank you for joy and belonging.

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To Jamie, you are my inspiration, my sunshine, my connection.

To Wendy Hewlett, thank you for ensuring that my soul is not forever in darkness.

To the clients and guardians of SAFE, whose personal information was used for this study. Thank you for allowing your experiences to be shared.

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<tbody>
<tr>
<td>APA</td>
<td>American Psychiatric Association</td>
</tr>
<tr>
<td>A/L</td>
<td>Academic/Learning</td>
</tr>
<tr>
<td>Anal Pen</td>
<td>Anal Penetration</td>
</tr>
<tr>
<td>BR</td>
<td>Base Rate</td>
</tr>
<tr>
<td>CA</td>
<td>Cluster Analysis</td>
</tr>
<tr>
<td>CBT</td>
<td>Cognitive Behavioural Therapy</td>
</tr>
<tr>
<td>CV</td>
<td>Criminal Versatility</td>
</tr>
<tr>
<td>CYFS</td>
<td>Child, Youth, and Family Services</td>
</tr>
<tr>
<td>DBT</td>
<td>Dialectical Behaviour Therapy</td>
</tr>
<tr>
<td>FBI</td>
<td>Federal Bureau of Investigation</td>
</tr>
<tr>
<td>FH</td>
<td>Family History</td>
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<tr>
<td>IPV</td>
<td>Intimate Partner Violence</td>
</tr>
<tr>
<td>M</td>
<td>Mean</td>
</tr>
<tr>
<td>MACI</td>
<td>Millon Adolescent Clinical Inventory</td>
</tr>
<tr>
<td>MANOVA</td>
<td>Multivariate Analysis of Variance</td>
</tr>
<tr>
<td>NA</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NS</td>
<td>Not Significant</td>
</tr>
<tr>
<td>NZ</td>
<td>New Zealand</td>
</tr>
<tr>
<td>OSA</td>
<td>Online Sexual Activity</td>
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<tr>
<td>PI</td>
<td>Pacific Island</td>
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<tr>
<td>SD</td>
<td>Standard Deviation</td>
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<tr>
<td>S-H</td>
<td>Self-harm</td>
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<tr>
<td>SPSS</td>
<td>Statistical Programme for Social Sciences</td>
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<td>Vag Pen</td>
<td>Vaginal Penetration</td>
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## Glossary of Terminology

<table>
<thead>
<tr>
<th>Terminology</th>
<th>Other terminology with similar meaning</th>
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<tbody>
<tr>
<td>Adolescent</td>
<td>Juvenile, Youth</td>
</tr>
<tr>
<td>Assaulter</td>
<td>Abuser, Offender</td>
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<tr>
<td>Bullying</td>
<td>Physical/verbal intimidation</td>
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<tr>
<td>Child abuser</td>
<td>Child molester</td>
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<tr>
<td>Classification</td>
<td>Typology</td>
</tr>
<tr>
<td>Cluster</td>
<td>Group, Profile type</td>
</tr>
<tr>
<td>General offending</td>
<td>Non-sexual offending, Other offending</td>
</tr>
<tr>
<td>Learning difficulties</td>
<td>Learning problems, Learning disabilities</td>
</tr>
<tr>
<td>Offence</td>
<td>Conviction</td>
</tr>
<tr>
<td>Offending supportive</td>
<td>Antisocial, Delinquent</td>
</tr>
<tr>
<td>Peer</td>
<td>Counterpart, Similar age, Friend</td>
</tr>
<tr>
<td>Physical force</td>
<td>Physical aggression</td>
</tr>
<tr>
<td>Previous victimisation</td>
<td>Prior victimisation, History of victimisation</td>
</tr>
<tr>
<td>Recidivism</td>
<td>Reoffending</td>
</tr>
<tr>
<td>Sex offending</td>
<td>Sexual offending</td>
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<tr>
<td>Witnessing</td>
<td>Exposure to</td>
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CHAPTER 1
OVERVIEW

Although recorded sex offences are relatively rare compared to other types of offences, (e.g., property or dishonesty offences [New Zealand Police, 2004; Ministry of Justice, 2009]), it is well known that sex offences are under-reported (Groth & Loredo, 1981; Hendriks & Bijleveld, 2008; Oxnam, 2005; Rasmussen, 2005; Righthand & Welch, 2005). Estimated rates of under-reported sex offences are reported as between 50% to 96% (Hendriks & Bijleveld).

Sex offending is typically viewed with high levels of indignation and anger by the general public (Van Vugt et al., 2008) and ranks alongside other social issues (e.g., nonsexual crime, poverty, environmental damage, disease, and substance abuse) as an important concern (Barbaree & Marshall, 2006). This is likely due to the high negative impact sex offending has on victims, offenders (McAlinden, 2007), their families, and wider society (Righthand & Welch, 2005).

The impact of sexual assault on victims has been well documented and typically includes both short-term and long-term negative effects of cognitive, emotional, spiritual, behavioural, and relationship functioning. Negative effects include anxiety, depression, withdrawal and avoidance, numbed emotions, decrease in social efficacy, confidence and self-esteem, suicidality and self-harm, sleep disturbances including nightmares, somatic complaints, flashbacks, pregnancy, sexual dysfunction, dissociation, psychotic symptoms, substance abuse problems, eating disorders, interpersonal relationship problems, impulsivity, fears regarding becoming perpetrators themselves (Brodsky et al., 2001; Denov, 2004; Fergusson, Horwood & Lynsky, 1996; Fergusson, Swain-Campbell, & Horwood, 2002; Goodwin, Fergusson, & Horwood, 2005; Jordon, 2008; Martin, 2010; Mulder, Beautrais, Joyce, & Fergusson, 1998; Mullen, Martin, Anderson, Romans, & Herbison, 1996; Nuemann, Houskamp, Pollock, &
Coupled with the negative impact on victims, sexual offending incurs negative consequences for perpetrators which include societal negative stigma and legal sanctions, such as community based sentences or imprisonment (McAlinden, 2007). As well as the costs to individual lives as noted above, sex offending also incurs high financial costs for communities and wider society (Jordon, 2008; Righthand & Welch, 2005). Thus, understanding more about the perpetrators of sexual offences can assist us to further develop the most effective strategies for prevention and treatment for the purposes of reducing sexual offending and reoffending. Any reduction in this type of crime has important consequences in reduced negative impact on individual victims, perpetrators, their families, communities and society.
Introduction

The main purpose of this study was to investigate the classification of male adolescent sex offenders on personality characteristics using a community based New Zealand sample. The current literature review (and study sample) has focused on male adolescent sex offending because the vast majority of adolescent sex offending is committed by males (Mathews, Hunter, & Vuz, 1997; Newman, Negendank, Poortinga, & Benedek, 2009), and females appear to have unique sex offending factors (Mathews et al., 1997). The unique sex offending factors of females include less force used in the sexual offence, selection of younger victims, more likely to be referred for their offending, and be less likely to have had prior involvement in the criminal justice system (Righthand & Welch, 2005). Where studies have included females in samples, or not documented the gender of the adolescent sex offending sample, the group will be termed “adolescent sex offenders”, and it is assumed that the studies have used samples where the majority are males and thus, are applicable to the current research. This assumption is supported by the literature that consistently reports that males commit the majority of sex offences (Fortune & Lambie, 2006; Mathews et al. 1997; Newman et al. 2009; Righthand & Welch, 2005; Seto & Lalumière, 2010).

A further aim of the current study was to explore relationships between offender, offence, and victim characteristics with the identified personality-based profiles. This was conducted for the purposes of providing further validity for the personality-based profiles and to build on existing research findings.

The literature review will be presented in six sections, with the first section providing a brief overview of the history of the research to date regarding adolescent sex offending. Section 2 will present the epidemiology of adolescent sex offending. Section 3 provides an
outline of the research which has led to what is currently known about the offender, offence, and victim characteristics of male adolescent sex offenders. This will include how male adolescent sex offenders are different from, and similar to, other groups as well as differences reported within the male adolescent sex offending population. Section 4 covers the research to date that has attempted to classify male adolescent sex offenders into subgroups, focusing on key studies to date that have investigated a personality-based classification of adolescent male sex offenders. Section 5 provides a summary of the main aspects of the literature review and finally, Section 6 describes briefly the current study’s aims and questions.

Section 1: Brief history of research on adolescent sex offending

The growing research on adolescent sex offending has been fairly recent, with little systematic research prior to the 1980s (Fortune & Lambie, 2004, 2006; Gerhold, Browne, & Beckett, 2007; O’Shaughnessy, 2002; Oxnam, 2005; Sikorski, 2005). The limited focus on adolescent sex offending, prior to the 1980s was likely due to adolescents who sexually offend being considered a relatively homogenous group whose sexual offending was conducted as sexual experimentation and/or curiosity and likely to desist with age (Gerhold, et al., 2007; Groth, 1977; Groth & Loredo, 1981; Lambie & Seymour, 2006; Oxnam, 2005). Thus, research on sexual offending focused more on adults who sexually offended (Oxnam, 2005), and interventions for adolescents who sexually offended used treatment models adapted from adult interventions (Lambie & McCarthy, 2005; Lambie & Seymour, 2006; Oxnam, 2005; Righthand & Welch, 2005; Sikorski, 2005). Adapted interventions for adolescent sex offenders may include active experiential modules to respond to adolescent unique needs for engagement (Somervell & Lambie, 2009). These interventions for adolescent sex offenders typically involved a “one size fits all” approach (Oxnam & Vess, 2006; Veneziano &
Veneziano, 2002). Over recent years, the literature has indicated that an approach of “one size fits all” is not adequate for a comprehensive understanding of the heterogeneous trajectories and associated preventative and treatment needs for adolescent males who have sexually offended (Lambie & Seymour, 2006; Oxnam, 2005; Sikorski, 2005). A large proportion of the research on adolescent sex offenders has been conducted in North America and Britain; however, the research specifically relevant to New Zealand is increasing (e.g., Fortune & Lambie, 2004, 2006; Geary, Lambie & Seymour, 2010; Lambie & Seymour, 2006; Oxnam & Vess, 2006; 2008; Somervell & Lambie, 2009).

Section 2: Epidemiology of adolescent sex offending

The following section provides a brief outline of the international and New Zealand rates of adolescent sex offending. A considerable proportion of sex offending is perpetrated by adolescents (Campbell & Lerew, 2002; Lambie & Seymour, 2006; Sikorski, 2005; Varker, Devilly, Ward & Beech, 2008). In the United States, approximately one in every five sexual offences are committed by persons under the age of 18 (Federal Bureau of Investigation [FBI], 2004). One-third to one-half of sexual offences against children is committed by the same age group (Hunter, Figueredo, Malamuth, & Becker, 2003; Oxnam, 2005; Snyder & Sickmund 1999; Truscott, 1993; Varker, et al., 2008). It appears that the majority of sex offences are committed by relatively few offenders (Andrews & Bonta, 2010; Righthand & Welch, 2005; Sikorski; Varker, et al., 2008). Zolondek, Abel, Northey Jr. and Jordan (2001) found that each adolescent sex offender self-reported committing between 9 and 46 sex offences. Tracy, Wolfgang and Figlio (1990) found that 7% of two birth cohorts committed more than 70% of all adolescent rape arrests. Furthermore, approximately 50% to 80% of adult sex offenders report that they committed their first sexual offence as adolescents (Gerhold, et al., 2007;
Oxnam, 2005). Thus, while the majority of adolescent sex offenders do not continue to commit further sexual offences, a small percentage, approximately 15% (Caldwell, 2002; Worling & Långström, 2006) of adolescents, continue to commit further sexual offences.

New Zealand studies show similar patterns in rates of adolescent sex offending. In a sample of New Zealand women who self-reported non-contact or contact sexual abuse before they reached age 16, nearly half of the sexual offenders were under the age of 25 at the time of the offending and 25% of offenders were under the age of 18 (Anderson, Martin, Mullen, Romans & Herbison, 1993). Thus, a quarter of the offending group fell in the adolescent age-range and were described as a particularly violent group of sexual offenders (Anderson, et al.). Another New Zealand study of male victims of sexual abuse reported that approximately 35% of victims were abused by adolescents (Lambie, 1998). Furthermore, of adolescent sex offenders who had been victimised, nearly half (42%) involved adolescent perpetrators (Lambie, 2002).

In summary, the literature to date indicates that New Zealand rates are similar to international rates of adolescent sex offending. Adolescents commit approximately one-fifth to one quarter of all sexual offences and up to half of sexual offences committed against children. It appears that although the majority of adolescent sex offenders do not go on to commit further sexual offences, there is a smaller proportion who recidivate and offend against further victims.

Section 3: Background offender, offence and victim characteristics

The following section reviews the research to date about characteristics that are related to male adolescent sex offending. This section begins with an outline of the offender, offence, and victim characteristics that have been related to male adolescent sex offenders. Each
section covers the research that has shown differences and similarities between adolescent sex offenders as compared to other groups (e.g., nonsexual offending adolescents or nonoffending adolescents). Variations found within adolescent sex offender subgroups on offender, offence, and victim characteristics are also reviewed. Finally, this section concludes with a summary of the above, highlighting the inconsistencies and consistencies that have been found regarding offender, offence, and victim characteristics of male adolescent sex offenders.

**Offender characteristics**

*Ethnicity.* Adolescent sex offenders come from a diversity of ethnic backgrounds (Almond & Giles, 2008). However, Māori, New Zealand’s indigenous culture, is over-represented in adolescent sex offending, consistent with the wider over-representation of Māori within the New Zealand criminal justice system (Statistics New Zealand, 2009). Māori make up approximately 20% to 29% of adolescent sex offenders in New Zealand (Oxnam, 2005; Fortune, 2000; Geary et al., 2010) which is still above the average 15% to 19% of Māori adolescents in the general population (Geary et al., 2010; University of Auckland, 2008). However, research indicates that adolescent sex offenders are less over-represented by Māori than adolescent violent and general offenders, with Māori making up approximately half of all recorded offending by young people in New Zealand (Ministry of Justice, 2009). New Zealand studies indicate that approximately one-half to two-thirds of adolescent sex offenders are Pākehā/New Zealand European (Oxnam, 2005; Fortune, 2000).

*Age.* A recent review of adolescent sex offenders estimated the average age of adolescent sex offenders at referral as 15.12 years (Gerhold et al., 2007). To date, there is a lack of clarity regarding the average age that adolescent sex offenders begin their offending, with reported age of onset being between 12 and 15 years (Ryan, 1991; Snyder & Sickmund, 1999) and also between 6 and 9 years (Underwood, Robinson, Mosholder, Warren, 2008).
There is general consensus that the highest rate of offending is between 13 to 16 years (Goth & Loredo, 1981; Ryan, 1991; Snyder & Sickmund, 1999; Underwood et al., 2008). According to Caldwell (2002), early onset of sexual offending in adolescent sex offenders may be less related to subsequent sexual offending than general offending. Younger sexual offenders (especially under 12 years of age) may be more likely to have a history of sexual or physical victimisation (Silovsky & Niec, 2002) and may be more likely to be female (Newman et al., 2009).

In summary, the average age that adolescents are referred to services for committing a sex offence is approximately 15 years of age. Adolescents commit the majority of their sex offences when aged 13 to 16 years. Establishing the average age that adolescents commit their first offence has proved more difficult, with reported estimates ranging from aged 6 to 15 years. Establishing a relationship between age of onset of sex offending and subsequent reoffending in adolescents has proved difficult to ascertain. Younger adolescent offenders are more likely to have a history of physical or sexual victimisation and be female.

**Gender.** The majority (90 to 97%) of adolescent sex offending is committed by males (Fortune & Lambie, 2006; Hunter & Figueredo, 2000; Mathews et al., 1997; Newman, et al., 2009; Righthand & Welch, 2005; Seto & Lalumière, 2010). Female adolescent sex offending is considered to be even more underestimated and undetected than male adolescent sex offending (Righthand & Welch, 2005).

In summary, although it is likely that female adolescent sex offending is currently underestimated, females may have some unique offending characteristics compared with males. From the literature, 90% or more of detected adolescent sex offending is committed by males.
Previous physical victimisation. Adolescent sex offenders have high rates of prior physical victimisation, with between 19% and 75% reportedly having experienced this (Almond, Canter, & Salfati, 2006; Becker & Hunter, 1997; Johnson & Shrier, 1985; Newman et al., 2009; Righthand & Welch, 2005). Adolescent sex offenders show similar rates of physical victimisation as their violent offending counterparts (Rubinstein, Yeager, Goodstein & Lewis, 1993) but higher rates of physical victimisation than general adolescent offenders (Ford & Linney, 1995; Lewis, Shanok & Pincus, 1981). These differences indicate that adolescent sex offenders and violent offenders may be similar in terms of rates of prior physical victimisation, but both have higher rates of physical victimisation compared to samples that include nonviolent (i.e., nonsexual and nonviolent) offending counterparts. In their comprehensive and recent meta-analysis, Seto and Lalumière (2010) found that adolescent male sex offenders had significantly higher self-reported rates of physical victimisation than their nonsex offending peers (59% and 49%, respectively); however, the effect size was small.

In summary, adolescent sex offenders have high rates of physical victimisation from primary caregivers. It appears that they have similar rates of physical victimisation to their violent offending counterparts but higher rates than nonsexual offending peers, which may be due to nonsexual offending samples including nonsexual and nonviolent offending peers.

Previous sexual victimisation. The relationship between prior sexual victimisation and adolescent sex offending has been well documented (Barbaree & Langton, 2006; Burton, 2008; Burton, Miller, Shill, 2002; Fehrenbach, Smith, Monastersky, & Deisher, 1986; Lewis, et al., 1981; Van Ness, 1984). Research suggests that anywhere between 19% and 80% of adolescent sex offenders have a reported history of sexual victimisation (Barbaree & Langton, 2006; Becker & Hunter, 1997, Johnson & Shrier, 1985; Oxnam, 2005; Righthand & Welch, 2005;
Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996; Worling, 1995a, 2001). It is worth noting that rates of histories of sexual victimisation are likely to be higher in studies using data during or subsequent to treatment than in pre-treatment samples. For example, Worling found a lower percentage of adolescent sex offenders had a reported history of sexual victimisation at pre-treatment than in studies which recorded post-assessment (22% and 55%, respectively). This difference is considered to be due to the increased trust and disclosure of the therapeutic environment (Barbaree & Langton, 2006; Worling, 2001). In general, the rate of sexual victimisation in adolescent sex offenders is at least triple that found in the general male population (Bagley, 1992; Barbaree & Langton, 2006; Oxnam, 2005).

Some studies have found that adolescent sex offenders have similar rates of sexual victimisation to general adolescent offenders (Awad & Saunders, 1989; Lightfoot & Evans, 2000; Spaccarelli, Bowden, Coatsworth, & Kim, 1997). However, other literature, including more recent studies and reviews, have shown different results; Adolescent sex offenders have been found to have higher rates of sexual victimisation than their general offending peers (Burton, et al., 2002; Burton, 2008; Gilby, Wolf, & Goldberg, 1989; Moody, Brissie, & Kim, 1994; Morenz & Becker, 1995). Seto and Lalumière (2010) found from their meta-analysis that adolescent male sex offenders were five times more likely to have experienced sexual victimisation than their non-sex offending peers, whether recorded from self-report or from other sources.

The relationship between previous sexual victimisation and subsequent sexual offending is complex. Hunter and Figueredo (2000) found that factors predictive of sexual offending were younger at the time of victimisation, had more frequent abuse, longer periods between their abuse and disclosure, and had lower levels of perceived family support following disclosure. Compared to general adolescent offenders with a history of sexual victimisation,
those who sexually offended were more likely to have had a male perpetrator, had longer duration of victimisation, and had more force and penetration in the sexual victimisation (Burton, et al., 2002; Kobayashi, Sales & Becker, 1995).

Adolescent sex offenders who have been abused sexually have been reported to be more likely to begin their sexual offending earlier (Johnson, 1988), had more victims, more likely to offend against both genders, and have more unrelated victims than nonabused counterparts (Righthand & Welch, 2005). This group of adolescent sex offenders may also exhibit more psychopathology and interpersonal difficulties than their nonabused counterparts (Cooper, Murphy & Haynes, 1996). Adolescent sex offenders who offend against male children may be more likely to have been sexually victimised than offenders who have female victims (Becker & Stein, 1991; Benoit & Kennedy, 1992; Breer, 1987; Davis & Leitenberg, 1987; Hunter et al., 2003; Watkins & Bentovin, 1992; Worling, 1995a; 2001; Seto & Lalumière, 2010). Becker and Stein (1991) reported that 32% of adolescents who had male victims reported sexual victimisation histories compared to 18% who had offended against female victims. Worling (1995a) found that 75% of male adolescent sex offenders who had ever had one male child victim reported previous sexual victimisation compared to 26% who had offended against female peer/adults or 24% who had offended against female children. Adolescent sex offenders with a history of sexual victimisation from a male nonrelative may be more likely to have offended against males (Hunter et al., 2003). However, it is worth noting that, based on empirical evidence to date, sexual victimisation is unlikely to be a good predictor of sexual recidivism in adolescent sex offenders (Worling & Långström, 2003; 2006).

In summary, although there are currently differing results across studies regarding rates of prior sexual victimisation for adolescent sex offenders, compared to their general offending counterparts, it is likely that rates are higher for adolescent sex offenders compared to their
general offending counterparts, and it is clear that they have much higher rates of victimisation than their nonoffending counterparts. Although prior sexual victimisation may be related to the onset of sexual offending, it is unlikely to predict sexual recidivism.

Factors that may increase the relationship between sexual victimisation and subsequent sexual offending include having had a male perpetrator, a longer duration of victimisation and time until disclosure, less family support subsequent to disclosure, and more force and penetration in the offending. Sex offenders who have prior sexual victimisation are more likely to begin their sexual offending earlier, to have had more victims, more male and unrelated victims, to be more likely to offend against both genders, and to exhibit more psychopathology and interpersonal difficulties than nonabused counterparts.

_Victimisation by peers (bullying)._ There is a dearth of research investigating the rates of victimisation from bullying by peers for adolescent sex offenders; however, it has been recognised as a serious concern for general adolescent populations (Viljoen, O’Neil & Sidhu, 2005). Although there is no research, to date, investigating bullying specifically in adolescent sex offending populations, it appears that being a victim of bullying by peers is common in adolescent offending (Viljoen et al., 2005), with rates estimated between 30% to 75% in the adolescent offending population (Ireland, 2002). These rates are much higher than self-reported rates of adolescents experiencing bullying in the New Zealand general population, which is currently estimated at 6% of adolescent school adolescents being bullied at school at least weekly (University of Auckland, 2008). Clinical experience suggests that victimisation from bullying may be related to adolescent sex offending (J. Worling, personal communication, June 26, 2007).

_Family dysfunction._ It is well-documented that adolescent sex offenders commonly come from dysfunctional family backgrounds with rates of dysfunction ranging from 26% to
75% (Awad & Saunders, 1991; Hunter et al., 2003; Ryan et al., 1996; Righthand & Welch, 2005). Areas of family dysfunction that studies have found to be related to adolescent sex offending include exposure to domestic violence, exposure to sexual aggression and other deviant sexual practices, exposure to parental sexual interactions, parental loss or separation, poor parental support, antisocial male modelled behaviour, parental substance abuse, parental incarceration, lack of attachment to others, enmeshed or disengaged relationships, family instability, psychopathology, criminality, low levels of positive communication, and high levels of negative communication (Awad & Saunders, 1991; Barbaree & Marshall, 2006; Becker, Harris & Sales, 1993; Caputo, Frick & Brodsky, 1999; Fagan & Wexler, 1998; Fehrenbach et al., 1986; Fritz, 2003; Geradin & Thibaut, 2004; Gray, Busconi, Houchens, & Pithers, 1997; Hsu & Starsynski, 1990; Hunter, 2004; Kahn & Chambers, 1991; Lightfoot & Evans, 2000; Morenz & Becker, 1995; Righthand & Welch, 2005; Ryan et al., 1996; Symboluk, Cummings & Lescheid, 2001; Veneziano & Veneziano, 2002). Witnessing family violence is common for adolescent sex offenders (Underwood et al., 2008). For example, Lewis, et al. (1981) found that 79% of the adolescent sex offenders were exposed to family violence versus 20% of nonviolent offenders who had been exposed to family violence. Adolescent sex offenders may have experienced more serious exposure to physical and domestic violence involving weapons and attitudes supportive of physical and sexual aggression than adolescent general offenders (Davis & Leitenberg, 1987; Varker, et al., 2008). It appears that family dysfunction and childhood exposure to family-related trauma are more frequent and severe in adolescents who have sexual behaviour problems than in adults whose onset of sexual offending is later in life (Hunter & Becker, 1994).

Furthermore, increased violence in adolescent sex offences has been found for those adolescents who have experienced or witnessed violence in the home (Ford & Linney, 1995).
Family dysfunction may also involve sex offending being committed by other family members (Gray, Busconi, Houchens, & Pithers, 1997). Smith, Monastersky, and Deisher (1987) found that a conduct disordered personality-based subgroup of male adolescent sex offenders was most likely to have another sex offender in the family.

Studies also indicate that less than one-third of adolescents who offend sexually live with both birth parents (Fehrenbach et al., 1986; Kahn & Chambers, 1991). Hsu and Starsynski (1990) reported that only one out of 32 of their sample of adolescent sex offenders was residing with his biological parents. Higgins (2008) found that 62% of the sample reported that their biological parents had never married or were divorced at the time of assessment. Seto and Lalumière (2010) found that some family variables (including relationship, communication, or satisfaction problems, separation from a parent, family substance abuse and familial criminality) were similar for adolescent male sex offenders as compared to their non-sex offending peers. Exposure to sexual family violence (but not family non-sexual violence) was higher in adolescent sex offenders than their non-sex offending peers (Seto & Lalumière, 2010).

In summary, adolescent sex offenders typically come from dysfunctional family systems that often involve exposure to family violence, exposure to inappropriate parental sexuality or sexually aggressive attitudes, poor communication and relational interaction as well as specific parental factors such as loss, psychopathology, substance abuse, separation, instability and criminality. It appears that adolescent sex offenders are similar to their nonsexual offending counterparts on some family background factors; however, they are more likely to have been exposed to sexual family violence than their non-sex offending peers. Adolescent sex offenders who have been exposed to severe family violence may use more violence in their sexual offences.
Other offending. Adolescent sex offenders are likely to engage in other types of offending, including dishonesty (e.g., Theft, Shoplifts, Burglary, or Robbery), noncompliance, drug, and violence-related offences (Awad & Saunders, 1991; Caldwell, 2007; Fehrenbach et al., 1986; Henggeler et al., 2009; Lambie & Seymour, 2006). Research indicates that, of adolescents who have sexually offended, between 44% and 63% have committed at least one other type of offence (Caldwell, 2007; Fehrenbach et al., 1986; Ryan, et al., 1996). One study found that as many as 27.8% of adolescent sex offenders had engaged in more than three other types of offences, including violent and dishonesty related offences (Ryan, et al., 1996).

However, research to date indicates that adolescent sex offenders have less prior recorded general offending history than their non-sex offending counterparts (Righthand & Welch, 2005; Seto & Lalumière, 2010). Thus, the full extent to which sex offending adolescents are similar to, or different from, their nonsexual offending counterparts has not been established (Caldwell, 2007). It appears that adolescent sex offenders are more likely to commit nonsexual offences than their nonoffending peers; however, they are, as one group, less likely to commit nonsexual antisocial offences than their nonsexual offending peers (McCann & Lussier, 2008; Seto & Lalumière, 2010). Seto and Lalumière (2010) reported significant heterogeneity for their meta-analytic results, which indicates that there is potentially a subgroup of adolescent sex offenders who are different to their general offending peers in regard to committing few non-sexual offences. It is also likely there is another subgroup of adolescent sex offenders who typically commit other types of offences. In the literature, it is often argued whether adolescent sex offending can be explained best by a general offending hypothesis (Caldwell, 2002), whereby the sexual offending is an opportunistic result of an offending supportive lifestyle. Alternatively, the specific explanation argues that adolescent sex offending has factors unique from general offending, and thus requires specialised
interventions and related research efforts (Seto & Lalumière, 2010). Given the literature to date, it appears that both hypotheses explain the trajectories of subtypes of adolescent sex offenders and are not mutually exclusive.

In summary, some adolescent sex offenders are likely to also engage in other types of offending. However, although they are more likely to commit nonsexual offences than adolescents who do not commit any types of offending, they are, as one group, less likely to offend with general offences than their nonsexual offending peers. It is likely that some adolescent sex offenders are very similar to their general offending counterparts and commit their sexual offences in the context of an offending supportive lifestyle. It is also likely that some adolescent sex offenders are different from their general offending peers and typically do not commit other types of offending.

Perpetrator of Bullying. Bullying has been recognised as a serious concern for adolescent populations (Viljoen et al., 2005). Ireland (2002) reported that between 20% and 70% of adolescent offenders self-reported perpetration of bullying. Children who engage in bullying behaviours are at an increased risk of sexual offending attitudes and behaviours (Caputo et al., 1999). Of the total sample of adolescent sex offenders in Higgins’ (2008) study, 63.9% had been involved in peer-related physical altercations in the previous year, although this was not further defined as perpetrating bullying or perceived defense.

In summary, the perpetration of bullying behaviours is common in the general adolescent population and may increase the risk for sexual offending.

Behavioural difficulties. Behavioural difficulties such as poor impulse control, lack of assertiveness, disruptive behaviours, and truancy are common in adolescent sex offenders (Righthand & Welch, 2005; Underwood et al., 2008). A group of researchers found that adolescent sex offenders in Ireland scored lower than their nonsexual offending peers, but
higher than nonoffending peers on measures of externalising and aggressive behaviours (O’Halloran et al., 2002). Interestingly, the adolescents who had sexually offended were similar to non-offending adolescents on scores of impulsivity (O’Halloran et al., 2002). Higgins (2008) found behavioural problems at school were common in a sample of incarnated adolescent sex offenders, with 88.9% having acquired at least one suspension from school. Moody et al., (1994) reported that adolescent sex offenders had more behavioural difficulties at school than their oppositional defiant (i.e., general offending) counterparts.

In summary, behavioural difficulties at school are common for adolescent sex offenders. Overall behavioural problems are likely to be higher than for their non-offending peers, but lower than their non-sexual offending peers.

*Mental illness.* High rates of mental illness have been reported for adolescent sex offenders including conduct and attention difficulties, psychotic symptoms, depression, and anxiety (Awad & Saunders, 1989; Becker, Kaplan, Tenke and Tartaglini, 1991; Granello & Hanna, 2003; Kavoussi, Kaplan & Becker., 1988; Lakey, 1992; Lewis, et al., 1981; Newman et al., 2009; O’Halloran et al., 2002; Righthand & Welch, 2005; Shaw, et al., 1993; Underwood et al., 2008).

Awad and Saunders (1989) found 87% of their sample of adolescent sex offenders had a diagnosis for an anxiety or mood disorder. Becker, Kaplan, Tenke and Tartaglini (1991) reported depression to be common in their sample of adolescent sex offenders, with 42% fitting the criteria for clinically relevant depressive symptoms.

Rates of non-suicidal self-harm are high in the adolescent offending population, with life-time prevalence ranging from 13% to 35% (Fliege, Lee, Grimm, & Klapp, 2009). Within adolescent offending populations, suicidal ideation and attempts appear to be higher in those who have been victims of bullying (Viljoen et al., 2005).
Some studies have indicated that adolescent sex offenders are similar to their general offending peers on conduct problems and/or other psychological problems (Newman et al., 2009; Tarter, Hegedus, Alterman, & Katz-Garris 1983; Seto & Lalumière, 2010; Varker, et al., 2008). In a young sample of adolescents who had sexually offended (aged between 9 and 14), Shaw and colleagues (1993) reported their sample of adolescent sex offenders was similar to their control group of non-sexual conduct disordered offenders for depression, anxiety and aggressive behaviours. However, it is worth noting that this study involved a particularly young sample of adolescents, which indicates it is less applicable to the current study than other studies which have used older adolescent samples. O’Halloran et al., (2002) found that a small sample of Irish adolescent offenders were similar to their non-sexual offending peers on measures of self-esteem and emotional loneliness. Van Ness (1984) found that adolescent sex offenders had more difficulty in controlling their anger than their non-sexual offending counterparts.

More recent literature has shown that adolescent sex offenders appear to have greater levels of anxiety and depression than adolescent general offenders (Righthand & Welch, 2005; Varker, et al., 2008). However, Seto and Lalimière’s (2010) comprehensive meta-analysis found no differences between adolescent sex offenders and their nonsex offending counterparts on depression, psychotic symptoms or suicidal tendencies. Anxiety and low self esteem were significantly higher in adolescent sex offenders than their nonsex offending peers (Seto & Lalimière, 2010).

In summary, adolescent sex offenders present with high levels of psychopathology. To date, it appears that adolescent sex offenders may have similar rates to their general offending counterparts regarding conduct problems and depression; however, they likely experience more
anxiety and lower self-esteem, and may have less control of their anger, than their general offending peers.

Substance Abuse. High rates of substance abuse are typical in the adolescent sex offending population (Granello & Hanna, 2003; Hsu & Starzynski, 1990; Kavoussi et al., 1988; Lakey, 1992; Lightfoot & Barbaree, 1993; Newman et al., 2009; Righthand & Welch, 2005; Underwood et al., 2008; Van Ness, 1984). However, it is less clear whether intoxication with substances during the offence is related to adolescent sex offending. Rates have been reported to range between 3.4% and 72% for the use of alcohol or other drugs at the time of adolescents committing a sexual offence (Lightfoot & Barbaree, 1993; Righthand & Welch, 2005).

Some studies have found that adolescent sex offenders are similar to their general offending peers on rates of substance abuse (Davis & Leitenberg, 1987; Newman et al., 2009), whereas other findings suggest that adolescent sex offenders may have less substance abuse problems than their general offending counterparts (Awad & Saunders, 1991; Righthand & Welch, 2005; Seto and Lalumière, 2010). Hsu and Starzynski (1990) found that 53% of their adolescent rapist group had used substances prior to committing the sexual offence as compared to 24% of their child sexual assaulter group, although this difference did not reach statistical significance. This may have been due to the small sample size of the study to detect statistical difference, as their total sample was 32 adolescents. Sikorski (2005) found that adolescents with a history of sexual offending were less likely to abuse substances than their counterparts with exclusively a history of non-sexual offending. However, there was a sub-group of adolescent sex offenders with female, peer-aged victims who had comparable rates of substance abuse to their non-sexual offending counterparts. Caution is to be taken with the sample of this study as these were incarcerated adolescents who are likely to have engaged in more serious offending than community-based samples (Smith et al., 1987). Of note, is the
heterogeneity of Seto and Lalumière’s results which suggests that substance abuse is different for some, but not all, adolescent sex offenders, as compared to their non-sex offending peers.

In summary, studies to date have reported inconsistent findings regarding the relationship between substance intoxication/abuse and adolescent sex offending. The most thorough and recent meta-analysis indicates that adolescent sex offenders have less substance abuse problems than their non-sex offending counterparts. However, it also appears that there may be a subgroup of adolescent sex offenders for whom substance use/abuse contributes to their sexual offending and their substance problems may be similar to their non-sex offending peers. This subgroup may be more likely to have female and peer-aged victims.

**Pornography.** The use of pornography is common in adolescent sex offenders (Righthand & Welch, 2005). Becker and Stein (1991) reported 89% of male adolescent offenders had used pornographic material at least once. With increasing access to the Internet since the 1990s, young people’s access to pornographic images has raised concern (Atkinson & Newton, 2010). Online Sexual Activity (OSA) has been associated with negative consequences (e.g., amount of time spent engaged in the activity and illegal nature of viewing), for adults in general (Atkinson & Newton, 2010). These negative effects of excessive use of viewing sexual material online is likely to apply with adolescents due to their developmental needs for socialisation with peers. However, it is less clear regarding any relationship with Internet exposure to pornography and contact sexual offending. Illicit substance use and larger pornographic collections are factors that have been found to differentiate contact and non-contact in adult sex offenders (McCarthy, 2010); thus, these may be factors to consider in adolescent sex offenders regarding Internet pornography use. Earlier research indicated a relationship between the use of pornography and adolescent sex offending. For example, Ford and Linney (1995) reported that adolescent sex offenders viewed more “hard core” (Ford &
Linney, 1995, p. 66) pornography than their non-sexual offending peers (42% and 29%, respectively). Seto and Lalumière’s (2010) meta-analysis reported higher rates of exposure to sex and pornography for adolescent sex offenders compared to their non-sex offending peers. However, this variable was combined with exposure to sex, so it is not clear what contribution pornography exposure made on its own.

It may be that the relationship between exposure to pornography and sex offending has been overestimated as Ferguson and Hartley (2009) have suggested. Alternatively, it may be that specific factors of pornography use, for example, exposure at a young age, or viewing pornography with particularly violent or deviant content (Ford & Linney, 1995), are associated with adolescent sex offending rather than exposure to any pornography.

In summary, the early concerns regarding the relationship between adolescent sex offending and exposure to pornography may be overestimated. Alternatively, it may be that specific factors (exposure at an early age or viewing deviant material) may be worth continued investigation.

Peer relationships. It is well documented that adolescent sex offenders present with problems in peer relationships; in particular, difficulty in establishing peer relationships, deficits in social skills, shyness and social isolation (Righthand & Welch, 2005; Underwood et al., 2008).

Adolescent sex offenders tend to be more socially isolated than general adolescent offenders (Blaske, Borduin, Henggeler, & Mann, 1989; Milloy, 1994; Varker, et al., 2008) and have less attachment to their schools and peers than their non-offending or general offending counterparts (Righthand & Welch, 2005). Seto and Lalumière (2010) found that social isolation was a more important factor than other difficulties in peer relationships for adolescent sex offenders, as they were significantly more socially isolated than their nonsex offending
peers, but not significantly less skilled in heterosexual or general social skills. Awad and Saunders (1991) found that adolescent sex offenders with child victims were more socially isolated than those adolescent offenders with peer or adult victims.

Association with offending supportive peers has been well documented as an important risk factor for adolescent general offending (Andrews & Bonta, 2010; Henggeler et al., 2009; Zampese, 1997). Seto and Lalumière (2010) found that adolescent sex offenders had less antisocial peer relationships than their non-sex offending peers.

In summary, adolescent sex offenders commonly have problems developing and maintaining peer relationships and appear to be more socially isolated and less attached to significant places and peers compared to their non-sexual offending and nonoffending peers.

*Sexual knowledge and experience.* There is inconsistent evidence regarding adolescent sex offenders’ sexual knowledge and experience. Some suggest that they typically have extensive prior consensual sexual experiences and knowledge (Becker, Cunningham-Rathner & Kaplan, 1986; Groth, 1977; Murphy, Haynes & Page, 1992; Righthand & Welch, 2005; Ryan et al., 1996) exceeding the comparable knowledge and experience of their non-sexual offending peers (Righthand & Welch, 2005). Others suggest that they have limited sexual knowledge (Davis & Leitenberg, 1987; Fagan & Wexler, 1988; Fehrenbach et al., 1986; Shoor, Speed & Bartelt, 1966; Underwood et al., 2008) and more sexual identity problems than their general offending counterparts (Righthand & Welch, 2005). The most recent meta-analysis (Seto and Lalumière, 2010) indicates that adolescent sex offenders are similar to their non-sex offending peers on non-deviant sexual experience. Ryan et al. (1996) suggested that adolescent sex offenders’ distorted perceptions regarding sex is likely to be a pertinent issue. They found that only approximately one-third of male adolescent sex offenders perceived sex as a way of demonstrating love or caring for the other person; others perceived sex as a way to
“gain power and control” (23.5%), to “dissipate anger” (9.4%) or “hurt, degrade or punish” (8.4%) (Ryan et al., 1996, p. 20).

In summary, research to date has provided evidence of adolescents being both limited in sexual experience and knowledge as well as having extensive experience compared to their non-sexual and general offending counterparts. It is likely that the research is tapping into different subgroups of sex offenders, with one type being under-experienced and another which is over-experienced for their developmental age. Of note, is a fair proportion of adolescent sex offenders who self-reported having perceptions of sex as a way of dissipating anger, gaining power, and control or to hurt degrade or punish.

*Learning difficulties and academic performance.* Learning difficulties, intellectual abilities and problems associated with academic achievement have been found in a number of studies of adolescent sex offenders (Awad & Saunders, 1989, 1991; Kahn & Chambers, 1991; Righthand & Welch, 2005; Ryan et al., 1996; Seto & Lalumière, 2010; Underwood et al, 2008; Veneziano & Veneziano, 2002). There are inconsistent results regarding comparisons with peer counterparts. For example, some researchers report that neurocognitive, intellectual, learning or academic problems are similarly high, or higher for adolescent sex offenders compared to their non-sexual offending peers (Awad & Saunders, 1991; Ferrara & McDonald, 1996; Tarter, et al., 1983; Spaccarelli, et al., 1997; Veneziano & Veneziano, 2002). However, other researchers report that adolescent sex offenders may have higher levels of academic achievement than their general offending counterparts with 32% of a sample of adolescent sex offenders described as above average in academic achievement (Righthand & Welch, 2005). Higgins (2008) found that academic or learning difficulties were common in male adolescent sex offenders with 72.7% having repeated a grade and 54.8% having involvement of special education services. Seto and Lalumière’s (2010) meta-analysis indicated that adolescent sex
offenders had significantly more learning disabilities but not academic achievement problems than their non-sex offending peers. An interesting recent study of New Zealand male adolescent offenders found that 91.67% of their sample had at least one type of learning difficulty (Rucklidge, McLean, & Bateup, 2009). This study’s most noteworthy finding was that reading comprehension was the learning disability that was predictive of recidivism. This study did not report the types of offences that had been committed by these adolescents, therefore it is unknown if it included sex offenders or sexual recidivism. However, it is worth noting that, due to its specificity in teasing apart a particular component of learning disabilities, that reading comprehension may be important for interventions to reduce recidivism.

In summary, academic, intellectual, neurocognitive and learning difficulties are common in adolescent sex offenders with some research indicating they have similar rates to their general offending peers. However, there is likely to be a sub-group of adolescent sex offenders who have no such difficulties and may excel academically. Learning difficulties are likely to be higher in adolescent sex offenders as compared to non-sexual offending peers. It is likely that, in New Zealand adolescent offending populations, reading comprehension is a specific learning disability which may be related to recidivism.

Denial/minimising. Denial of offending, minimising the impact on others or externalising responsibility (e.g., blaming the victim) are common in adolescent sex offending (Righthand & Welch, 2005), particularly at assessment, and are often included in current interventions for adolescents who have sexually offended (Higgins, 2008; Lambie & McCarthy, 2005). Seto and Lalumière (2010) found adolescent sex offenders were not significantly different to their non-sex offending peers on measures of lying, impression management and denial. Smith and colleagues (1987) found that a personality-based sub-group of shy, socially withdrawn and fearful male adolescent sex offenders was least open
about committing their index sex offence. Sexually aggressive adolescent sex offenders may be more likely to deny or minimise the impact on victims as compared to their low-violence controls (Varker, et al., 2008). However, denial and a lack of empathy have not been empirically found to be good predictors of sexual recidivism in adolescent sex offenders (Worling & Långström, 2006).

In summary, denial, externalising responsibility and minimising offending are common cognitive distortions in adolescent sex offending. It may be that those adolescents who use more aggression in their offending may be more likely to deny or minimise the impact on the victim. However, denial, or a lack of empathy are noted as unlikely predictors of sexual recidivism in adolescent sex offenders.

**Recidivism.** Given the limited research to date investigating recidivism in adolescent sex offenders, as well as the variability across the studies (i.e., methodological design, type of referral offences, length of follow-up period, impact of interventions, the characteristics of the population being investigated, and the measure of recidivism), it is difficult to provide an accurate account of the rates (Caldwell, 2002; McCann & Lussier, 2008; Sipe, Jensen, & Everett 1998; Worling & Långström, 2003). As recently noted, there is no current risk measure of clear prediction of sexual recidivism in adolescent sex offenders (Prentky et al., 2010). However, it is currently estimated at between 0% (six months follow-up period) to 40% (longer follow-up periods) for sexual recidivism (McCann & Lussier, 2008; Newman et al., 2009; Varker et al, 2008; Worling & Långström, 2003, 2006). Worling and Långström (2006) reported an average estimate of 15%, as measured by official charges or 14% if using a more conservative measure of new convictions for sexual reoffending.

Nonsexual recidivism in adolescent sex offenders is currently estimated between 5.2% and 66.3% (McCann & Lussier, 2008; Newman et al., 2009) with an average of approximately
41.7% (McCann & Lussier, 2008). Thus, adolescent sex offenders are more likely to commit a subsequent nonsexual offence than a sexual offence (Caldwell, 2002; McCann & Lussier, 2008; Newman et al., 2009; Worling & Curwin 2000; Zimring, 2004). It has been reported that adolescent sex offenders may be nearly 10 times more likely to be charged with a non-sexual offence than sexual offence (Caldwell, 2007). Worling and Långström (2006) reported a rate of general recidivism as 42% (inclusive of sexual reoffending) in adolescent sex offenders, about three times more likely than a sexual reoffence. Longer follow-up periods are related to increased sexual and nonsexual recidivism (Worling & Långström, 2006).

Previous offending (both nonsexual and sexual) is noted as a good predictor of sexual recidivism in adolescent sex offenders (Gerhold et al., 2007; McCann & Lussier, 2008). Sexual recidivism is likely to increase positively with the intake age of the offending adolescent (McCann & Lussier). Other factors that McCann and Lussier (2008) found to be related to sexual recidivism included having a stranger victim, child or adult (as compared to peer) victim, male victim, sexual deviancy and antisociality. Worling (2001) found that the Antisocial/Impulsive and Unusual/Isolated personality groups were more likely to recidivate generally. Bulter and Seto (2002) found that adolescent sex offenders without a history of nonsexual offending were less likely to recidivate with delinquent offending than nonsex adolescent offenders.

A current qualitative review, based on empirical evidence to date, indicated that deviant sexual interests (i.e., pre-pubescent child and sexual violence), prior criminal sanctions for sexual offending, more than one victim, stranger victim, social isolation, and noncompletion of offence-specific treatment) are likely to be the predictors of sexual recidivism that we can have the most confidence in (Worling & Långström, 2003, 2006). These factors had at least two
studies providing statistical relationships with sexual recidivism and had no studies reporting results that were inconsistent with these relationships.

Problematic parent-adolescent relationships and sex offending supportive attitudes have been noted as “promising” (Worling & Långström, 2006, p. 228) factors for predicting sexual recidivism, based on there being evidence of one study that has found a relationship between these factors and sexual recidivism in adolescent sex offenders. Worling and Långström reported that highly stressful family environments, impulsivity, antisocial interpersonal orientation, interpersonal aggression, negative peer associations, male or child victims, threats or use of violence during the sexual offence, and a supportive reoffending environment have been identified as “possible” (Worling & Långström, 2006, p. 229) risk factors for sexual recidivism. However, they advised that caution needs to be taken due to the inconsistent empirical evidence, to date.

In summary, adolescent sex offenders are more likely to recidivate with a nonsexual offence than a sexual offence. However, there are some offender, offence, and victim factors that likely predict sexual recidivism based on empirical evidence to date (previous sexual and non-sexual offending, deviant sexual interests, antisociality, prior criminal sanctions for sexual offending, more than one victim, stranger victim, male victim, child or adult victim, social isolation, and non-completion of offence-specific treatment) (McCann & Lussier, 2008; Worling and Långström, 2003; 2006). Problematic parent-adolescent relationships and sex offending supportive attitudes may also be predictive of sexual reoffending, however further research is needed to support this. Highly stressful family environments, impulsivity, antisocial interpersonal orientation, interpersonal aggression, negative peer associations, male or child victims, threats or use of violence during the sexual offence, and a supportive
reoffending environment may predict sexual reoffending but empirical evidence to date is very inconsistent; thus, further research is needed to confirm the predictive validity of these factors.

**Offence characteristics**

**Use of force.** Research has indicated that the use of force may be higher in adolescent sex offenders who select victims at a similar age or older than themselves. For example, Groth (1977) found that in offences involving peer or adult victims a weapon was used in 43% of sexual offences compared to no weapons involved in the offence with child victims. Richardson, Kelly, Bhaté, and Graham (1997) reported that as high as 92% of adolescent sex offenders used force in the sexual offence when the victim was a peer or adult with 33% of this group using a weapon.

Oxnam (2005) reported that 40% of a New Zealand sample of adolescent sex offenders used violence in the offending. Adolescent sex offenders may use less physical force in their sexual offending than adults (Boyd, Hagan & Cho, 2000). It also appears that the level of force or physical violence used in the offence is dependent on whether it is self-reported by the offender or the victim, with higher rates of physical injury reported by victims than by offenders (Boyd et al., 2000).

There is a general consensus across research that coercion, intimidation, or threats (of violence or physical force) is common in adolescent sex offending (Fehrenbach et al., 1986; Hunter, Hazelwood & Slesinger 2000; Kaufman, Hilliker & Daleiden, 1996; Miranda & Corcoran, 2000; Richardson et al., 1997; Wasserman & Kappel, 1985).

**Types of offences.** The range of offences that adolescent sex offenders commit include oral-genital contact, attempted and actual vaginal or anal penetration, noncontact and sexual touching (Richardson, Kelly, Bhaté & Graham, 1997; Righthand & Welch, 2005). More than half of the offences are likely to involve oral-genital contact, attempted penetration or
completed penetration (Richardson et al., 1997; Righthand & Welch, 2005). Contact offences are the most common types of sexual offences (Fehrenbach, et al., 1986; Richardson et al., 1997). Miranda and Corcoran (2000) reported that adolescent sex offenders are less likely to engage in penetration than adult sex offenders (13% versus 41%). However, Richardson and colleagues (1997) found the majority of offences included penetration. They reported that the variety of offences was wider for offenders who only offended against children with offences ranging from nonpenetrative to penetrative types, whereas with peer and adult victims offenders typically engaged in a smaller number of types, for example, rape. Levels of emotional disturbance have been reported as lower in adolescent sex offenders who committed only hands-off offences (i.e., obscene phone calls and voyeurism) than those who committed sexual offences involving touching or penetration (Saunders, Awad, & White, 1986). Smith and colleagues, (1987) found that two personality-based subgroups described as “abnormal” and “disturbed” (Smith et al., 1987, p. 426) with characteristics such as, insecurity, narcissism, impulsivity, limited self-control, distrust, and alienation, appeared to be associated with a more serious offence type (rape and excessive force). However, penetrative acts have been identified as an unlikely predictor of sexual recidivism in adolescent sex offenders (Worling & Långström, 2006).

In summary, the use of physical force is common in adolescent sex offending; however, it may be more frequent in offences that involve a nonchild victim. Adolescents may be less likely to use physical violence than their adult counterparts. There is a general consensus that intimidation or threats of violence/physical force are common. Although the majority of offences committed by adolescents involve contact with the victim, those with younger victims likely engage in a larger range of sexual acts. Lower levels of emotional disturbance have been found in adolescents who have exclusively committed non-contact offences. Two personality
styles may be likely to be associated with more penetrative and/or violent sex offences. However, penetrative acts during the offence, has been deemed an unlikely predictor of sexual recidivism in adolescent sex offenders.

**Victim characteristics**

*Victim age.* Adolescent sex offenders typically choose children as victims (Davis & Leitenberg, 1987; Deisher, Wenet, Paperny, Clark & Fehrenbach, 1982; Hunter & Figueredo, 2000; Oxnam, 2005; Underwood et al., 2008; Vandiver, 2006). A recent New Zealand study found that 80% of male adolescent sex offenders had committed offences against at least one child under the age of 12 as compared to 34% who had committed offences against peer or adults, as measured by age 13 or over (Oxnam, 2005; Oxnam & Vess, 2008).

Offender and offence factors that have been reported to have relationships with offending against child victims include less aggression in the offence, more likely to be related or well-known to the offender, greater offender psychosocial deficits, less substance intoxication in the offender at time of the offending, more likely to be conducted in victim’s home, higher levels of depression, lower self-esteem, more socially inept, and lower levels of antisociality (Hunter, et al., 2003; Seto & Lalumière, 2006; Underwood et al., 2008). Smith and colleagues, (1987) found that two personality-based “abnormal” (Smith et al., p. 429) subgroups, Group II (emotionally disturbed) and Group IV (conduct disordered), appeared to be associated with more child victims.

*Victim gender.* The majority (68% to 91%) of adolescent male sex offenders commit their offences against females (Newman et al., 2009; Rasmussen, 1999; Vandiver, 2006; Wasserman & Kappel, 1985; Wieckowski, Hartsoe, Mayer, & Shortz, 1998). A recent New Zealand study indicated that 82% of adolescent sex offenders had sexually offended against at least one female as compared to 48% who had offended against at least one male (Oxnam,
Adolescent sex offenders who offend against females exclusively tend to be more similar to nonsexual offenders than those with mixed gender victims (Sikorski, 2005).

However, it appears that when victims are younger, the bias towards female victims is less clear. For example, Van Ness (1984) reported that although 91% of victims were female, 63% of victims were male when the victim was age 12 years or less. Groth (1977) reported that although 17% of peer-aged victims were male, this figure increased to 31% for male victims when the victim was significantly younger than the offender. Furthermore, no adult victims were of male gender. Researchers in the field currently recognise that child and male variables in studies are often positively correlated (Richardson et al., 1997; Worling, 1995a). It appears that those with younger victims with at least one male may have the greatest sexual deviancy and sexual preoccupation needs, and fewer perceived friends and social supports (Sikorski, 2005).

**Victim relationship.** The majority of victims are known or related to the offender (Fehrenbach et al., 1986; Newman et al., 2009; Rasmussen, 1999; Wieckowski, et al., 1998) which is similar to adult sex offenders (Miranda & Corcoran, 2000). Approximately 6% to 10% are unknown to the offender prior to the offence (Mathews, et al., 1997; Wieckowski, et al.). However, Fehrenbach and colleagues (1986) found that 67% of adult rape victims were unknown to the offender. Richardson et al., (1997) found that adolescents with child victims were more likely to abuse victims known to them as compared to those with peer/adult victims who offended against a majority of unknown victims. Thus, stranger victims appear more likely when the offence is against a peer/adult victim. Worling (1995c) found that adolescent sexual offenders who offended against siblings (as compared to non-sibling children) had higher rates of family dysfunction and more likely to have a history of sexual victimisation.
However, Worling (1995c) noted that differences between adolescent sex offenders who offended against siblings and nonsiblings may be reflective of his findings that adolescents who offended against siblings also had more younger siblings in their family.

It is worth noting that differences in measuring the classifications can make it difficult to investigate relationships between offender and victim (Worling, 1995c). For example, when comparing with an “incest” category which included step and half-siblings, Richardson and colleagues (1997) included “unrelated” or “extended” younger family members in their “child” category (Richardson et al., p. 244), which could mean that adopted siblings were in the child category. Whereas Worling (1995c) included “foster” or “adopted” in his “sibling” category (Worling, 1995c, p. 635). These differences highlight the difficulties that are inherent in the details of measurement of variables when conducting research and when comparing results among studies.

In summary, the majority of victims of adolescent sex offenders are female child victims who are known to the offender; however, there is a corresponding increase in male victims with younger age of victim. Those adolescents who offend against peer/adult victims may have higher levels of antisociality. Those with child victims may be more socially isolated/inept, have higher levels of depression, use less physical aggression in the offending, and use less substances at the time of the offences. Although the majority of victims are children, those victims who are peer or adult appear more likely to be unknown to the offender.

*Summary of what is known about adolescent sex offenders to date*

Although a lot more is known than 20 years ago, there is still not a clear and reliable picture of the characteristics of adolescent sex offenders. It is clear that adolescent sex offenders commit a sizable proportion of sex offences. Although the majority of adolescent sex offenders do not go on to commit further sexual offences, there is a proportion
(approximately 15%) who recidivate against further victims. The majority of adolescent sex offenders are male and come from a diversity of ethnic backgrounds.

Adolescent sex offenders may be similar to their violent offending counterparts in having high rates of prior physical victimisation, but have higher rates of physical victimisation to their non-violent offending peers. Rates of prior sexual victimisation are higher for adolescent sex offenders than nonoffending peers; however, the link between prior victimisation and subsequent sex offending is less clear. Potential moderators may be factors related to the sexual victimisation. Adolescent sex offenders with a history of sexual victimisation may be more likely to begin their sexual offending earlier, to have had more victims, more male and unrelated victims, be more likely to offend against both genders, and to exhibit more psychopathology and interpersonal difficulties than nonabused counterparts.

Adolescent sex offenders typically come from dysfunctional family systems that often involve exposure to family violence, exposure to inappropriate parental sexuality or sexually aggressive attitudes, poor communication and relational interaction as well as specific parental factors, such as absence or death, psychopathology, substance abuse, separation, instability, and criminality. It appears that adolescent sex offenders are similar to their nonsex offending counterparts on some family background factors; however, they are more likely to have been exposed to sexual family violence than their non-sex offending peers. Adolescent sex offenders who have been exposed to severe family violence may use more violence in their sexual offences.

Adolescent sex offenders are likely to also engage in other types of offending. However, although they are more likely to commit non-sexual offences than adolescents who do not commit any types of offending, they are, as one group, less likely to offend with general offences than their non-sexual offending peers. Behavioural difficulties at school are common
and are likely to be higher than for their non-offending peers, but lower than their non-sexual offending peers. They present with high levels of psychopathology and appear to have similar rates to their non-sexual offending counterparts regarding conduct problems and depression; however, they likely experience more anxiety and lower self-esteem, and may have less control of their anger, than their nonsexual offending peers.

There have been inconsistent findings regarding the relationship between substance intoxication/abuse and adolescent sex offending. The most thorough and recent meta-analysis indicates that adolescent sex offenders have less substance abuse problems than their nonsex offending counterparts. However, it also appears that there may be a subgroup of adolescent sex offenders for whom substance use/abuse contributes to their sexual offending and their substance problems may be similar to their non-sex offending peers. This subgroup may be more likely to have female and peer-aged victims.

The early concerns regarding the relationship between adolescent sex offending and exposure to pornography may be overestimated. Alternatively, it may be that specific factors (exposure at an early age or viewing deviant material) may be worth continued investigation.

Adolescent sex offenders commonly have problems developing and maintaining peer relationships and are more socially isolated compared to their nonsexual offending and non-offending peers. Research to date has indicated that some adolescent sex offenders are less nondeviantly sexually experienced or knowledgeable as compared to their non-sexual and general offending counterparts, while others have extensive prior sexual nondeviant experience and knowledge.

Academic, intellectual, neurocognitive and learning difficulties are common in adolescent sex offenders. Learning difficulties are likely to be higher in adolescent sex
offenders as compared to nonsexual offending peers. Reading comprehension is a specific learning disability which may be related to recidivism in New Zealand adolescent offenders.

Denial, externalising responsibility, and minimising offending are common cognitive distortions in adolescent sex offenders. However, denial or a lack of empathy are noted as unlikely predictors of sexual recidivism in adolescent sex offenders.

Adolescent sex offenders are more likely to recidivate with a non-sexual offence than a sexual offence. However, there are some factors that likely predict sexual recidivism, such as prior offending, deviant sexual interests, prior criminal sanctions for sexual offending, more than one victim, stranger victim, male victim, child or adult victim, antisociality, social isolation, and non-completion of offence-specific treatment. Problematic parent-adolescent relationships and sex offending supportive attitudes may also be predictive of sexual reoffending, however further research is needed to support this. Highly stressful family environments, impulsivity, antisocial interpersonal orientation, interpersonal aggression, negative peer associations, male or child victims, threats or use of violence during the sexual offence, and a supportive reoffending environment may predict sexual reoffending but empirical evidence to date is inconsistent, thus further research is needed to confirm the predictive validity of these factors.

The use of physical force may be more frequent in offences that involve a nonchild victim. Adolescents may be less likely to use physical violence than their adult counterparts. There is a general consensus that intimidation or threats of violence/physical force are common. The majority of sexual offences that are committed by adolescents involve physical contact with the victim. The majority of victims of adolescent sex offenders are female children who are known to the offender.
Limitations of the literature to date. Although our understandings of adolescent sex offenders has progressed appreciably over the last 15 years, the research to date, as previously discussed, includes a number of limitations which make clear conclusions unrealistic and unwise. As Seto and Lalumière, (2010) have pointed out succinctly, many of the studies were conducted more than 20 years ago and may not be applicable to current generations of adolescent sex offenders. The early studies were largely descriptive and failed to include comparison groups. The limited use of standardised measures, and using samples that include different types of adolescent sex offenders also make conclusions difficult to ascertain with confidence. Although the more current research has reduced many of the these conceptual and methodological problems, there remain limitations with small sample sizes, reliance on self-report, different measurement factors, samples or control groups, and cross-sectional study designs, thus, making causal pathways and clearly defined factors difficult to ascertain. Furthermore, differing countries or settings can make comparisons across studies difficult to clarify. For example, custodial or correctional samples typically include adolescent sex offenders with a higher level of risk and needs (Smith et al., 1987) than community-based samples.

A recent meta-analytic review (Seto & Lalumière, 2010) of adolescent sex offenders has provided clarity regarding offending-related factors when comparing adolescent sex offenders with adolescent non-sex offenders. However, despite some clear differences between the groups, many of their analyses were significantly heterogeneous which supports our understanding that adolescent sex offenders vary on many offender, offence, and victim characteristics. Thus, the identification of meaningful subgroups of adolescent sex offenders may increase current understandings and aid matching appropriate interventions to specific subgroup needs.
Section 4: Classification of adolescent sex offenders

The following section outlines the research to date that has involved attempts to classify adolescent sex offenders into subgroups. This will include early attempts that have sub-grouped according to clinical experience, offence type, and victim-based characteristics, and ends with a comprehensive outline of the research that has focused on personality-based classifications.

As noted from the review above, adolescent sex offenders are a heterogeneous group with varying offender, offence, and victim characteristics. To increase understandings of the pathways into adolescent sex offending and interventions to assist pathways out of offending for these adolescents, researchers have investigated differences among subgroups within the adolescent sex offending population (Davis & Leitenberg, 1987; Richardson et al., 1997; Worling, 1995a, 1995b, 1995c).

Clinical experience-based classifications. O’Brien and Bera (1986) provided a classification based on clinical experience. They identified seven offender types. These were labelled as Naïve Experimenter, Unsocialised Child Sexual Exploiter, Pseudo-Socialised Child Exploiter, Sexually Aggressive Offender, Sexually Compulsive Offender, Disturbed Impulsive Offender and Group Influenced Offender. These labels reflected differences in offence and victim factors, family background, temperament, socialisation, mental status, peer influence, substance use, cognitive ability, and conduct difficulties. This classification has been reported to have useful face validity and is used widely in residential settings; however, there are yet to be any data to test the statistical reliability and validity of this classification typology (Oxnam, 2005; Worling, 2001).
Sloan and Schafer (as cited in Underwood et al., 2008) offered a typology of adolescent sex offenders that was based on adolescents’ knowledge, skills, morality, and values. The four groups were described as follows: 1) Understand appropriate behaviour and appreciate societal rules and expectations, 2) Perverse and maladaptive education, do not understand societal rules but are motivated to learn to become contributing member, 3) Understand societal rules and expectations but choose to disregard them and 4) New to the system and transitioning into one of the above categories, easily influenced by peers and distrustful of staff.

Shaw (2002) reported four typologies of adolescent sex offenders: 1. offenders with true paraphilias such as frotteurism, 2. anti-social personality disorders, 3. psychiatric or neurobiological disorder, and 4. youth with impaired social skills who turn to younger children for sexual gratification.

**Victim-based classifications.** Attempts to classify adolescent sex offenders have often followed adult classification models by using the age of the victim which has assisted the prediction of risk of reoffending (Skelton, Riley, Wales, & Vess, 2006; Skelton & Vess, 2008). Typically, the adolescent sex offenders are classified into two groups (child victims versus peer/adult victims).

Awad and Saunders (1991) compared male adolescent sex assaulted who had offended against child victims, whom they termed as “child molesters”, (Awad & Saunders, p. 450) with those who had sexually offended against peer/adult victims, termed as “assaulters” (Awad & Saunders, p. 450) variables, as well as comparisons with nonsexual offending male adolescents, termed as “delinquents” (Awad & Saunders, p. 450). They noted that most of the assaulters recidivated, had histories of and concurrent other antisocial behaviours, and came from dysfunctional families. This group was also described as less socially withdrawn than the child victim sex offender group.
Hunter and colleagues (2003) reported differences between adolescent sex offenders with prepubescent and pubescent/post pubescent victims. Adolescents who offended against the prepubescent victims showed greater psychological functioning deficits, were less aggressive in sexual offending and more likely to have intrafamilial victims.

Sikorski (2005) found a number of differences across groups that were classified according to victim age and gender. Those adolescent sex offenders who had exclusively peer female victims were most similar to nonsexual offending peers regarding their cognitions, behaviours, and self-concepts. The child sex offenders, especially those with at least one male victim, had the greatest frequency of sexual deviancy (sexual preoccupation and lack of control of arousal) and fewer social supports, including friends.

Those with high psychopathy scores had more extensive criminal histories, greater chaos in early childhood caregiver relationships, and greater resistance to obeying authority. These offenders also had more prior exposure to violence and greater unruly and forceful behaviours. Those offenders who had high scores on psychopathy and had at least one child and one male victim were identified as a subgroup of highly impulsive and difficult to treat offenders.

However, there have been studies which have indicated limited or inconsistent differences between subgroups based on victim characteristics. For example, although Worling (1995b) found that male adolescent sex offenders who offended against female peer/adult victims experienced more parental physical discipline than those with female child victims, he found no significant differences between adolescent sex offenders who offended against female children compared to those who offended against female peers/adults on other variables, such as previous sexual victimisation, interpersonal functioning and self-perception. Furthermore, Ford and Linney (1995) found the opposite result on previous physical
victimisation, with the child molester group experiencing more than the other two older age victim groups. Hagan and Cho (1996) found no significant differences between adolescents who sexually offended against children and those who offended against peer/adult victims on measures of general or sexual recidivism. Several researchers have questioned the usefulness of classifying adolescent sex offenders based on victim age (Hagan & Cho, 1996; Hsu & Starzynski, 1990; Worling, 2001).

**Personality-based classifications.** Given the mixed results found to date, for classifying adolescent sex offenders based on victim age characteristics, Worling (2001) proposed that distinct background characteristics may not clearly exist for adolescent sex offender subgroups that are based on victim age. In light of these inconsistent findings regarding victim-based classifications and the limited empirical evidence for clinical experience-based classifications of adolescent sex offenders, recent researchers have explored the classification of adolescent sex offenders on personality-based characteristics to further our knowledge of adolescent sex offending, in order to guide prediction of recidivism, prevention and treatment. A personality-based classification of adult sexual offenders has been useful for understanding sex offending in adults (Wales, 2005).

To date, six key studies have involved attempts to classify adolescent sex offenders on personality characteristics using standardised psychometric instruments (see Table 1).
Table 1

Personality-based studies of adolescent sex offenders

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Age M (Range)</th>
<th>N</th>
<th>Setting</th>
<th>Personality Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith et al., (1987)</td>
<td>15.54 (12-18)</td>
<td>262</td>
<td>Community (Washington, DC)</td>
<td>MMPI</td>
</tr>
<tr>
<td>Worling (2001)</td>
<td>15.59 (12-19)</td>
<td>97</td>
<td>Community (Toronto)</td>
<td>CPI</td>
</tr>
<tr>
<td>Oxnam &amp; Vess (2008)</td>
<td>15.2 (13-19)</td>
<td>82</td>
<td>Community (Wellington, NZ)</td>
<td>MACI</td>
</tr>
</tbody>
</table>

Smith, Monastersky and Deisher (1987) identified four groups through cluster analysis of the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1951) scores of a community-based sample of 262 adolescent male adolescent sex offenders. Group I was described as a “Normal range profile” (Smith et al., p. 426), consisting of adolescents who exhibit shyness, anxiety, social isolation, and positive self-image impression management.

Group II, the “Most disturbed profile”, (Smith et al. p. 426) included personality characteristics such as: demanding, narcissistic, prone to physical illness, attention-seeking, argumentative, insecure and prone to fantasy as a problem-solving strategy. Group III was a further “Normal range profile” (Smith et al., p. 426) with typical characteristics that included frankness, realistic self-image presentation, outgoing, and appropriate affect. This group had a tendency to be over-controlled and display occasional emotional outbursts. Groups IV was described as an “Abnormal range profile” (Smith et al., 426) with typical characteristics including: impulsivity, poor self-control and judgment, distrust, alienation, and under-socialisation.
Few reliable statistical differences were found across the personality-based profile groups in reasons for referral to treatment, offenders’ historical and background variables, or clinical presentations (Smith et al., 1987). However, the two “abnormal” groups appeared to be associated with more serious offence type (rape and excessive force) and selection of peer/adult victims. The direction of results suggested that Group IV was most likely to have another sex offender in the family. Group I was the least open regarding committing the index sex offence. Smith and colleagues suggested that their profile subtype Group IV was most similar to conduct disordered nonsexual offending adolescents. They reported that their sample of adolescent sex offenders showed a different personality pattern than researchers have previously reported for adult sex offending populations who have used the similar coding system, thus providing some evidence for the uniqueness of adolescent sex offending personality styles as compared to personality styles that are likely to be more stabilised in adults.

Worling (2001) investigated personality-based typologies using the California Psychological Inventory (CPI) scores of a final sample of 97 adolescent male sexual offenders (aged 12-19) using cluster analyses. Worling identified the following four personality-based subgroups of adolescent male sex offenders: Antisocial/Impulsive, Unusual/Isolated, Overcontrolled/Reserved and Confident/Aggressive. The largest group, Antisocial/Impulsive, were described as being antisocial and impulsive with a propensity for rule breaking and were more likely to have reported parental physical abuse, as well as received criminal charges for their index offence. The Unusual/Isolated group was described as emotionally disturbed and insecure. The Overcontrolled/Reserved group had a tendency for being overcontrolled and socially reserved. Finally, the Confident/Aggressive group was described as honest and outgoing with a proneness to act out aggressively.
The Antisocial/Impulsive and Confident/Aggressive groups were more likely to be living in residential homes than the other two groups. The Antisocial/Impulsive group had the highest percentage of individuals who offended against an intrafamilial victim and the Overcontrolled/Reserved group had the lowest; however, Worling (2001) notes that this is likely confounded by the Antisocial/Impulsive group also having a higher number of younger siblings. The two groups (Antisocial/Impulsive and Unusual/Isolated), when combined, were statistically less likely than the two “healthier” (Worling, p. 158) groups to have parents still married or living together and more likely to have received subsequent criminal charges within a six-year follow-up period (55% and 33%, respectively). More of the adolescents in the combined groups (Antisocial/Impulsive and Unusual/Isolated) had subsequent violent (sexual or non-sexual) assaults compared to the combined “healthier” groups. No differences among groups were found for sexual recidivism, which was an overall 11% with a follow-up period between two and ten years. No significant differences were found among the personality-based subgroups on victim age, victim gender, or offender’s history of sexual victimisation, although there was approaching significance for the Confident/Aggressive having fewer male victims than the other groups.

Worling (2001) suggested that the lack of relationship found between groups on victim factors may be due to the fluidity of adolescent male sex offenders’ preferences, given their stage of psychosexual development (Hunter & Lexier, 1998). Thus, for adolescent sex offenders, the age and gender of the victim may be less useful for classifying offenders than for adult sex offenders. Victim preference may not be fully developed until adulthood for sex offenders. This may explain the inconsistencies in research comparing adolescent sex offenders on victim characteristics (Worling, 2001).
Richardson, Kelly, Graham and Bhate (2004) conducted a hierarchical cluster analysis of Millon Adolescent Clinical Inventory (MACI) (Millon, 1993) scores to classify a sample of 112 community-based male adolescent sex offenders. They identified the following five prototypes: Normal, Antisocial, Submissive, Dysthymic/Inhibited, and Dysthymic/Negativistic.

The Normal prototype did not have elevated scores on any of the Personality Patterns, Clinical Syndromes, or Expressed Concerns scales. They were described as a group who did not have clinical levels of personality problems or psychopathology and who were not overly troubled about personal experiences or events (Richardson et al., 2004). The authors note that, alternatively, this group’s relatively low score on the Disclosure scale may reflect a lack of openness regarding their self-report.

The Antisocial prototype was a relatively small group making up only 11% of the sample (Richardson et al., 2004). This group’s elevations reflected a tendency to be deceitful, impulsive, shun societal norms and engage in illegal or exploitative behaviours for the purposes of self-interest or retaliation. These adolescents were described as likely to be indifferent to the well-being of others and may view family life negatively, usually as a result of parental rejection and intrafamilial conflict.

The Submissive prototype was described as passively dependent on others, extremely compliant with rules and unassertive regarding their own needs, as well as highly anxious.

Richardson et al., (2004) describe the Dysthymic/Inhibited prototype as socially withdrawn and depressive. These individuals may experience a sense of failure compared to their peers and lack self-confidence, particularly regarding their expectation of negative evaluation from others.

The Dysthymic/Negativistic prototype was characterised by resentment and the display of intimidating behaviours, severe psychopathology and chronic, disabling
dysthymic/depressive symptoms. High levels of distress regarding family relationships and low self-esteem are likely. This group was reported as being likely to perceive themselves as less successful than peers and to disregard the feelings of their peers as well as having difficulty in self-regulation. These individuals may use substances as a way to self-medicate mood with corresponding disinhibitory affects on behavioural control. For some of these individuals, the risk of self-harm may be present.

Richardson and colleagues (2004) measured the relationship between personality profiles and victim variables (age of victim, gender of victim and the offender’s relationship to the victim). Although no significant differences were found among groups, the authors note that caution needs to be taken in interpretation of these results due to the limited power of small sample sizes. They suggest that interventions may be more useful if aimed at personality subgroups (versus victim-based such as child versus adult victim) due to the variation in personality and clinical characteristics that adolescent sex offenders are likely to present with, if grouped on the basis of victim characteristics.

Oxnam & Vess (2006) investigated personality typologies using cluster analysis with MACI scores in a Wellington, New Zealand, community-based sample of 25 male adolescent sex offenders aged between 13 and 17 years who had committed varying sexual offences ranging with the majority involving physical sexual contact (including touching, oral and penetration). Further offence, offender, and victim variables were not available. Three groups were identified. The Antisocial group was described as aggressive, unpredictable, dominating and unemotional with a limited interest in developing close and affectionate relationships. This group was described as likely to be involved in general offending and may have substance abuse problems. The authors noted the similarities in this group with group profiles found in previous research (Richardson et al., 2004; Smith et al., 1987; Worling, 2001).
Oxnam and Vess (2006) described the main characteristics of the Inadequate group as a tendency to internalise distress and to experience intense levels of psychological and behavioural dysfunction. They were reported as likely to present with irritability, pessimism, self-debasement, low self-esteem and dysthymic traits. Fear of peer rejection likely leads to avoidance of relationships for these adolescents. These adolescents were reported as likely to experience great concern over childhood sexual, physical, or verbal intrafamilial victimisation.

The third group had no Personality Patterns scale elevations in the clinically significant ranges, and was described as a group of youth who likely have a somewhat anxious and dependent focus on compliance with rules and the expectations of others (Oxnam & Vess, 2006). They may experience their sexual maturity with confusion and discomfort and likely present with a lack of hostility and aggression. This group was reported as most likely to feel guilt and distress about their offending due to its violation of their general desire to behave in a prosocial manner.

Oxnam and Vess (2008) conducted a further cluster analysis using the MACI scores to investigate personality profiles with a community-based Wellington, New Zealand sample of 82 male adolescents. Four personality profiles were identified: Inadequate, Antisocial, Conforming and Passive-Aggressive. The authors reported that the overall profile of the Inadequate group was to internalise distress and experience severe emotional, cognitive, and behavioural problems (Oxnam & Vess, 2008). These adolescents were described as likely to present with irritability, pessimism, and self-debasement. Dysthymic traits were common, and they may alternate between compliance and resistant behaviours. They were reported as likely to fear ridicule and rejection from peers and may act out in intimidating and aggressive ways. Anger and frustration at the loneliness of their lives may be the driving factors of aggressive and intimidating behaviours.
The Antisocial group was described as likely to externalise their emotions with unpredictable aggression, domination, and abuse being the typical style of interpersonal interaction (Oxnam & Vess, 2008). The authors suggested that this group is typically asocial and is uninterested and unskilled in developing close affectionate relationships. They are unlikely to be concerned with social rules or the perceptions of others, and may be unresponsive to punishment and consequences of their abusive behaviours. Their sexual offending is likely to be an aspect of a general offending supportive lifestyle. This group’s drug problems may be perpetuating their antisocial behaviours.

Both the Conforming and Passive-Aggressive groups had no Personality Patterns scale elevations within the clinically significant range, and were reported to have few personal difficulties (Oxnam & Vess, 2008). The Conforming profile was described as likely to be motivated to be cooperative with prosocial norms in an anxiety-driven manner. Self-expression, flexibility, and risk-taking are typically avoided. They may experience discomfort and guilt regarding sexual urges.

Immaturity and dependency were suggested as the primary personality characteristics of the Passive-Aggressive group (Oxnam & Vess, 2008). They may let others exploit them and often experience ambivalence between complying with the needs and wishes of others, and a need to assert themselves. Stubbornness and negativism were noted to likely cause difficulties in relationships. A tendency towards self-harm and limited understanding of age-appropriate social norms likely contribute to their antisocial acting out. These adolescents were reported as being more likely to show relatively higher levels of guilt and remorse for their sexual offending than other groups.

Of the offender, offence, and victims variables measured in this study, only physical victimisation was found to be statistically different between the profile groups (Oxnam &
Vess, 2008). The Inadequate group had the highest proportion (72%) with the Antisocial group having the second highest rate (60%) and the other two groups resulting in proportionally lower rates (Conforming: 40% and Passive-Aggressive: 27%) (Oxnam, 2005). When the two groups (Inadequate and Antisocial) were combined, the combined group was statistically significantly higher than the other two combined groups (Conforming and Passive-Aggressive) to have a history of physical victimisation.

The Antisocial group had a lower percentage of offenders who admitted to their offending than the other groups, although this difference across groups did not reach statistical significance, (Oxnam, 2005). Although differences on victim age did not reach significance, the Antisocial group had a smaller percentage of individuals who had offended against children compared to the other three groups (Oxnam, 2005).

The majority of offenders in the total sample had committed sexual offences against at least one child (80%), as compared to those who had committed their offences against at least one victim 13 years or over (Oxnam, 2005). Of the total sample, 82% had sexually offended against at least one female, as compared to 48% who had offended against at least one male, (Oxnam, 2005). There were no statistically significant differences between groups on victim gender. However, it is worth noting, that in the Antisocial group, 100% had offended against a female; thus, no individuals in that group had an exclusively male victim preference.

Although no significant differences were found between groups for the relationship between offender and victim, it is worth noting that one of the groups (Passive-Aggressive) had a higher percentage who had offended against unrelated victims (81%) than the other three groups: Inadequate (56%), Antisocial (55%) and Conforming (45%). Furthermore, although sexual victimisation was not related to personality-based profiles, offenders who had
experienced prior sexual victimisation themselves were significantly more likely to have ever offended against a male than non-abused offenders (Oxnam & Vess, 2008).

The authors noted in both studies that the results are limited by small sample sizes and the use of a single self-report measure. They recommend that future research include a larger pool of information to provide a fuller picture of the profiles. They note that larger samples could aid our understanding of the adolescent male sex offending population by assisting the refinement of interventions that reduce the number who persist to becoming high-risk adult sexual offenders.

Higgins (2008) conducted a cluster analysis using the MACI on a sample of 440 male adolescent sex offenders who were serving sentences in a residential correctional facility in Alabama. Five clusters were identified: Broadly Disturbed, Anxious/Submissive/Passive, Dysthymic/Shame-based/Negative-Self-image, Narcissistic/Delinquent, and Distressed/Delinquent. The Broadly Disturbed was described as a group characterised by prominent psychopathology, personality deficits, and several life concerns. Significant sadness and dysphoria were reported as likely to be prominent (Higgins, 2008). They may have difficulty solving problems and experience intense feelings of hopelessness, emotional numbing, guilt and joylessness. Social withdrawal, worry, low self-esteem, and self-criticism are typical of this group. Their perceived incompetence and inadequacy is likely to be a driving factor in their limited capacity for risk-taking. Irritability and resentment may also be present due to passive-aggressive tendencies. They are likely to have concerns regarding identity formation, future visions, fearing rejection by peers, and family relationships. Intense feelings of shame, embarrassment or disgust related to childhood sexual, physical, or emotional victimisation may be present. They are likely to have been in trouble for substance use, and may experience suicidal ideation and planning. They may, at times, behave in an antisocial
and impulsive manner, and may sabotage opportunities for success and happiness. Callousness and cold-heartedness may be present to some extent, in these youths. Worry about growth and development may be present to some degree, as well as dissatisfaction with their physical appearance.

Higgins (2008) described the Anxious/Submissive/Passive group as one which was predominantly characterised by anxiety symptoms. She reported that a clingy and passive style of interpersonal interaction is typical of this group which is accompanied by associated limited ability to take initiative in social settings or in completing tasks. Feelings of inadequacy and low self-confidence may be their experience. Other characteristics which are likely to be contributing to these individuals’ personality superficiality, compliancy, and impression management. They may also experience discomfort and unease regarding sexual thoughts and feelings. Higgins noted that this group appeared to be less psychiatrically impaired than the other groups. Given that this group had significantly higher rates of previous psychological treatment, she suggested that the lower level of psychiatric impairment at MACI administration may be attributed to effective prior interventions. This group’s attachment with parental figures was considered to be a protective factor. This group was suggested to be the healthiest profile.

The Dysthymic/Shame-Based/Negative Self-image group was marked by the internalising of symptoms with chronic depression (Higgins, 2008). Sensitivity to rejection and embarrassment is likely to be a driving factor in interpersonal interaction and lead to loneliness. Shyness and withdrawal are typical presentation styles. They may suffer from low self-esteem and dependency. Feelings of their own lack of importance may stem from perceived or real abandonment from primary caregivers and may generalise to peer settings. To a lesser extent these adolescents may present with oppositional behaviour, oscillating between the need to assert self versus the desire to comply with others’ expectations.
Antisocial and delinquent tendencies were concluded to be the major personality characteristics of the Narcissistic/Delinquent group (Higgins, 2008). These individuals were described as being likely to violate the rights of others, break rules, and generally be defiant in interpersonal interaction with authority. They may be hostile, deceitful, and intimidating in relationships. Lying to avoid punishment without learning from mistakes is common in this personality style. Excessive self-confidence, arrogance, and self-centeredness are also likely to be aspects of their personality style. A high sense of self-entitlement is likely to elicit the expectation for praise and attention from others. Limited empathy and engagement in risky behaviours may be common, and they may typically respond to perceived disrespect with angry outbursts. Poor family relationships and parental rejection/hostility may be present to some degree.

Chronic symptoms of depression and joylessness were reported as the main factors in the personality of the Distressed/Delinquent group (Higgins, 2008). Apathy and pessimism are common. They are likely to interpret relationships in terms of perceived abandonment. Behaviour is likely to be conduct-disordered including noncompliance with social norms and violating the rights of others. Feigning engagement in treatment is likely or alternatively presenting with an ambivalent passive-aggressive engagement. They likely come from troubled, unsupportive family environments. Poor behavioural controls and engagement in risky behaviours on the spur of the moment is likely. Their substance use may be at a point of starting to create difficulties in their lives or that they come from substance-abusing families. To a lesser extent, these adolescents experience little pleasure other than sensation-seeking thrills, and they may experience emotional numbing or emotional dysregulation. There may be presence of some borderline characteristics of identity, relationship, and emotional instability.
This group differs from other groups in that they externalise behaviours and experience internal distress.

Higgins (2008) investigated the relationships of numerous offender, offence, and victim variables with the profile groups. There were few statistically significant differences across the groups. The Dysthymic/Shame-Based/Negative Self-image and the Anxious/Submissive/Passive groups were more likely to have adolescents who had a history of sexual victimisation. The Narcissistic/Delinquent and the Distressed/Delinquent groups were more likely to have older victims than the other three groups, and this approached statistical significance. The Broadly Disturbed, Narcissistic/Delinquent and Distressed/Delinquent groups had significantly higher scores on measures of psychopathy than the other two groups. The Broadly Disturbed group had the highest substance abuse, highest sexual deviancy, highest internalising symptoms and lowest parental and peer attachment scores. The Dysthymic/Shame-Based/Negative Self-image group had the most overall history of trauma compared to the other groups. The Distressed/Delinquent had the highest scores on measures of externalising behaviours.

Important variables that the researcher investigated which resulted in no statistical significant differences between cluster groups, were physical victimisation, victim relationship, victim age (although as noted above this approached significance) and victim gender, type of sexual offence and sexual drive/preoccupation (Higgins, 2008).

**Summary of classifications of adolescent sex offenders to date.** In summary, attempts to follow adult sex offender classifications based on victim characteristics has proved less clear in the adolescent than in the adult sex offending population, which may be due to the fluidity of victim selection during the psychosexual developmental stage of adolescence. Thus, researchers have focused on personality-based classifications to identity subgroups of
adolescent sex offenders. There have been six key studies which have used cluster analysis to investigate the classification of adolescent sex offenders on personality-based characteristics. These studies have used samples from North America, Britain, and New Zealand. Four of these studies used MACI scores, one used MMPI scores and one used CPI scores. Between three and five personality-based groups have been proposed. Given the relative recency of the topic, research results have demonstrated a high degree of consistency across studies.

The most consistent personality group across studies was a group predominantly marked by antisocial, externalising, or offending supportive attitudes and behaviours. There was a large degree of consistency across studies regarding a cluster group that was predominantly made up of personality characteristics related to social isolation, extensive worry and fear, depressive symptoms, passive-aggressive behaviours, internalising behaviours, and insecurity.

Finally, there was consistency across studies regarding a sub-group who were marked by little personality or psychopathological characteristics, and were generally considered relatively healthy or normal adolescents.

Despite this high level of consistency across studies on personality-based profile groups of male adolescent sex offenders, there appears to be inconsistent findings regarding the relationship of offender, offence, and victim characteristics with personality-based profile groups (see Table 2).
Table 2

Relationships between offender, offence, and victim variables with personality-based profiles across research

<table>
<thead>
<tr>
<th>Variable</th>
<th>Research group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Smith, Monastersky &amp; Deisher (1987)</td>
</tr>
<tr>
<td></td>
<td>Worling (2001)</td>
</tr>
<tr>
<td></td>
<td>Richardson et al., (2004)</td>
</tr>
<tr>
<td></td>
<td>Oxnam &amp; Vess (2008)</td>
</tr>
<tr>
<td></td>
<td>Higgins (2008)</td>
</tr>
<tr>
<td>Offence Type</td>
<td>Groups II and IV (more serious) #</td>
</tr>
<tr>
<td>Denial of Offence</td>
<td>Group I (highest)</td>
</tr>
<tr>
<td>Living in Residential Homes</td>
<td>NA</td>
</tr>
<tr>
<td>Parents Together</td>
<td>NA</td>
</tr>
<tr>
<td>Subsequent violent or non-violent charge</td>
<td>NA</td>
</tr>
<tr>
<td>Physical Victimisation</td>
<td>NS</td>
</tr>
<tr>
<td>Sexual Victimisation</td>
<td>NS</td>
</tr>
<tr>
<td>Psychopathy</td>
<td>NA</td>
</tr>
<tr>
<td>Relationship Attachment</td>
<td>NA</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>NA</td>
</tr>
<tr>
<td>Overall</td>
<td>NA</td>
</tr>
</tbody>
</table>

- Denial of Offence: Group I (highest)
- Living in Residential Homes: Antisocial/Impulsive and Confident/Aggressive (highest)*
- Parents Together: Antisocial/Impulsive and Unusual/Isolated (lowest)*
- Subsequent violent or non-violent charge: Antisocial/Impulsive and Unusual/Isolated (highest)*
- Physical Victimisation: Antisocial/Impulsive (highest)*
- Sexual Victimisation: NS
- Psychopathy: NA
- Relationship Attachment: NA
- Substance Abuse: NA
- Overall: NA

*Significance levels: NA = Not Applicable, NS = Not Significant
<table>
<thead>
<tr>
<th>Variable</th>
<th>Research group</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Trauma</td>
<td>Worling (2001)</td>
<td>Based/Negative Self-image (highest)</td>
</tr>
<tr>
<td>Sexual Deviancy</td>
<td>NA</td>
<td>Broadly Disturbed (highest)</td>
</tr>
<tr>
<td>Internalising</td>
<td>NA</td>
<td>Broadly Disturbed (highest)</td>
</tr>
<tr>
<td>Externalising</td>
<td>NA</td>
<td>Distressed/Delinquent (highest)</td>
</tr>
<tr>
<td>Victim age</td>
<td>Group I +</td>
<td>Antisocial (less child) #</td>
</tr>
<tr>
<td>victim Relationship</td>
<td>Group III</td>
<td>Narcissistic/Delinquent and Distressed/Delinquent (older victims) #</td>
</tr>
<tr>
<td></td>
<td>(less child) #</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(more Intrafamilial)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NS</td>
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<td>NS</td>
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<td></td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

**Notes.** The symbol * denotes statistical significance was reported for the variable. The symbol # denotes approaching statistical significance was reported for the variable. NS denote non significant statistical results. NA denotes that this variable was not investigated in the study.
Overall, the above results indicate that there is currently no offender, offence, or victim variable that has been consistently related to personality-based profiles of adolescent sex offenders. Of the victim variables, for example, although Worling (2001) found that the antisocial type showed a pattern of selecting fewer males, three other studies found non-significant results (Higgins, 2008; Oxnam & Vess, 2008; Smith et al., 1987). Worling found that the antisocial type was more likely to have intrafamilial victims, whereas Oxnam and Vess found that, although there was a pattern of a different profile type (Passive-Aggressive) showing selection bias towards unrelated victims, there were no differences between the antisocial group with their other two groups (Inadequate and Antisocial) on selection of unrelated victims (55%, 56% and 45%, respectively). Furthermore, Higgins (2008) found non-significant results for victim relationship. With regard to victim age, Smith et al. (1987) found the personality types that they described as most “normal” showed a pattern of less child victims, whereas two other studies (Higgins, 2008; Oxnam & Vess, 2008) found that their antisocial type were less likely to select younger victims. Richardson and colleagues (2004), and Worling (2001) found non-significant results.

Of the offender variables, Higgins (2008) found two sub-types had higher rates of sexual victimisation than the other groups; however, three other studies found no significant results across the personality-based groups (Oxnam & Vess, 2008; Smith et al., 1987; Worling, 2001) for sexual victimisation. Worling found the Antisocial/Impulsive group had the highest rate for previous physical victimisation, whereas Oxnam and Vess found a different subtype (Inadequate) had the highest rate, and Higgins and Smith et al. found non-significant results for this factor.

Recidivism data was only collected for one study (Worling, 2001), which indicated that the combined antisocial and socially isolated groups were more likely to receive subsequent
criminal charges for offending than the other two combined personality groups. Further research will assist confirmation of this pattern.

Limitations of the above studies that make comparative conclusions difficult have been noted by the respective researchers. Arguably, the greatest limitation among the studies was using small sample sizes (e.g., Oxnam & Vess, 2006, 2008; Richardson et al., 2004; Worling, 2001). Further limitations common to the majority of the personality-based studies was the heavy reliance on self-report for personality-based measures and other background characteristics. Worling’s inclusion of officially recorded Police recidivism data was an exception. Inter-rater reliability statistics were lacking in the majority of the reported studies, thus research bias is a potential risk to the reliability of data collection. Furthermore, cluster analysis is an exploratory technique that is not exact in nature and relies on a fair amount of researcher judgment to interpret the optimum cluster solution, thus risking researcher bias in the interpretations. Another limitation was the use of varying personality measures. For example Smith and colleagues (1987) used the MMPI whereas others used the MACI (e.g., Higgins, 2008; Oxnam & Vess, 2006, 2008; Richardson et al., 2004) and Worling (2001) used the CPI. Variation in the operationalisation and selection of offender background, offence, and victim variables also limits comparative clarity. For example, Smith and colleagues appeared to collapse their sexual and physical previous victimisation variable, which would not allow for separate investigation. Furthermore, the cross-sectional design of the majority of the studies limits the predictive validity. The time frame was not clearly recorded on some variables. For example, Smith and colleagues recorded sexual victimisation; however, they did not clearly record if this was previous to sexual offending or concurrent with sexual offending. This means that assumptions made about causal contributions are difficult to ascertain. Again
Worling’s longitudinal recidivism data was an exception to this regarding time frames of subsequent criminal behaviours.

Finally, a limitation of many of the final cluster solutions is their limited clinical applicability. For example, five personality profile types (as in Higgins, 2008) are unlikely to be practical for tailoring differentiated subgroup interventions in treatment services which predominantly are group-based.

Section 5: Summary of literature review

As a whole, the literature, to date, on adolescent sex offenders, indicates that there are a number of offender, offence, and victim characteristics that are typical of this group. However, it is also clear that adolescent sex offenders are a heterogeneous group, thus a “one size fits all” approach to prevention or treatment is not likely to provide the most benefit. Attempts to classify subgroups on victim-based classification have provided mixed results, adding limited clarity to our understandings. However, personality-based classifications have indicated exceptionally consistent results across researchers and countries regarding personality characteristics of the profile types of male adolescent sex offenders. Despite this consistency for personality-based profiles, there have been no consistent findings from these studies regarding the relationships between personality-based profiles and background offender, offence, and victim characteristics. To date, the limitations, particularly of small sample sizes, has compounded this lack of clarity regarding the investigation of offender, offence, and victim variables and personality-based profile groups.
Section 6: The current study

Given the seriousness of the negative impact, both short-term and long-term, of sex offending on victims and society, coupled with current reports that male adolescents commit a fair proportion of recorded sex offences (with approximately 15% persisting with sex offending), the current study is considered to be highly relevant in furthering our understandings of the etiology, prevention, and treatment of male adolescent sex offending.

Research aims

The main aim of the current study was to classify a community-based sample of male adolescent sex offenders based on personality characteristics. This would contribute to research by comparing the current study’s results with the results of other researchers who have conducted similar investigations. Given that a major limitation that has been noted in previous research is the small sample sizes, particularly in the New Zealand studies, my aim was to build on current research by using a larger New Zealand sample. Furthermore, using an Auckland-based sample was likely to add to the generalisability of the two previous New Zealand studies which used Wellington-based samples.

A secondary aim of the current study was to investigate the relationship of offender, offence, and victim factors with identified personality-based profile groups. Given the mixed results of previous studies regarding the relationships of offender, offence, and victim characteristics with personality-based profiles, it was deemed that the larger sample used in the current study would add to current understandings of adolescent sex offenders by having more statistical power to detect significant differences in the data.

Given the discrepancies between earlier research that has indicated common characteristics of adolescent sex offenders based on victim characteristics, and the lack of
consistent reported relationship of victim characteristics and personality-based profiles, detailed attention was paid to the operationalisation of these variables in the current study. Victim characteristics were operationalised according to the likelihood of detecting a meaningful relationship, if it existed. More specifically, victim relationship, victim gender, and victim age were defined by any evidence of having at least two child victims, two male victims or two stranger victims.

Research questions

In line with aims described above, I aimed to answer three main questions that are deemed to further our understandings regarding the etiology and treatment of male adolescent sex offenders.

Question 1: Can a meaningful set of personality-based clusters/profiles be identified in a New Zealand community-based sample of male adolescent sex offenders?

Question 2: How do the personality-based profiles of the current study compare to the personality-based profiles of previous studies?

Question 3: Is there a relationship between any of the offender, offence, and victim background variables and identified personality-based profiles?
PARTICIPANTS

Participants for the current study were adolescent males who had been referred to a community-based service for sexual offending, and whom had completed the MACI at assessment, as part of a routine assessment procedure, between 7 February 1996 and 24 August 2009. Inclusion criteria for a review of an individual’s file were that participants were male and between the ages of 13 and 19 with valid MACI scores according to the guidelines as stated in the manual (Millon, 1993). The final number of participants whose files were reviewed was 298.

PARTICIPATING AGENCY

The research was a file review of male adolescent sex offenders who had been referred to SAFE. SAFE is a community-based treatment programme in Auckland, New Zealand for individuals who have sexually offended. Referrals to SAFE come from a range of services (e.g., Child, Youth, and Family Services [CYFS] or Department of Corrections) and self-referral. The types of sexual offences that are committed by adolescents range from noncontact to penetrative offences. The majority of referrals are for individuals who reside in the North Island. Adolescents who identify as Māori are seen by the SAFE Māori team. All other adolescents are seen by the SAFE Adolescent team. Individuals who are referred to SAFE undergo an assessment to evaluate their suitability for the treatment programme. The assessment typically consists of psychometric testing and interviews.
Offender demographics

At the time of MACI administration at assessment, participants’ ages ranged from 13-18 years with a mean age of 14.74 years ($SD=1.27$). Age was recorded from the original scoring sheet of the MACI. The majority of participants were reported to be of Pākehā/New Zealand European ethnicity (56.4%) with nearly one-third reported to be of Māori ethnicity (31.2%). Seven per cent were reported to be of Pacific Island ethnicity and a small percentage of participants (0.3%) were reported to be Asian, South African, Indian, or Russian. There was no ethnicity recorded on files for the remainder of the participants (1.7%).

Measures

Millon Adolescent Clinical Inventory. The Millon Adolescent Clinical Inventory (MACI; Millon, 1993; Millon & Davis, 1993) is a self-report inventory which has 160 items that measure personality styles, current concerns, and clinical problems of adolescents aged from 13 to 19 (Millon & Davis, 1993). Each item is scored True or False. The MACI was designed as a sophisticated basis for the assessment and treatment of adolescent clinical populations (McCann, 1999; Millon, 1993). The measure is deemed to obtain a comprehensive idea of the adolescent’s current inner world including both strengths and weaknesses (McCann, 1999).

The MACI is made up of four Modifying Indices, 12 Personality Pattern Scales, eight Expressed Concerns Scales and seven Clinical Syndrome Scales (see Appendix A). The Modifying Indices are made up of one Reliability Scale and three Validity Scales. The Reliability scale assesses random responding. The three Validity scales (Disclosure, Desirability, and Debasement) were designed to measure an individual’s willingness to be open and self-disclosing, as well as positive and negative impression management.
The Personality Pattern scales are: Introversive, Inhibited, Doleful, Submissive, Dramatizing, Egotistical, Unruly, Forceful, Conforming, Oppositional, Self-Demeaning, and Borderline Tendency. Patterns of elevations (configurations) on these subscales provide a style of personality that incorporates cognitive styles, coping mechanisms, behavioural tendencies and biophysical vulnerabilities (McCann, 1999). These Personality Patterns were designed to be in accordance with the versions current to the time of Diagnostic Statistical Manual of Mental Disorders (American Psychiatric Association [APA], 1980, 1987, 1994) classification (McCann, 1999; Millon, & Davis, 1993); however, it is important to note that the developers’ understanding of personality is that it is not fixed during adolescence. Therefore, the patterns are written as ‘styles’ of thinking, feeling and behaving in the world which are not believed to be stabilised until adulthood (McCann, 1999; Millon, 1993).

The eight Expressed Concerns subscales of the MACI (A: Identity Diffusion, B: Self-Devaluation, C: Body Disapproval, D: Sexual Discomfort, E: Peer Insecurity, F: Social Insensitivity, G: Family Discord, H: Childhood Abuse) were aimed at capturing the concerns that are likely to be distinctive or relevant for the particular developmental stage of adolescence (McCann, 1999, Millon, 1993). The seven Clinical Syndrome subscales (AA: Eating Dysfunctions, BB: Substance-Abuse Proneness, CC: Delinquent Predisposition, DD: Impulsive Propensity, EE: Anxious Feelings, FF: Depressive Affect, GG: Suicidal Tendency) were designed to measure specific adolescent behavioural and mood problems that are frequently seen in clinical settings (Tringone, Millon, & Kamp, 2007). They can be viewed as behavioural and emotional extensions of personality patterns or as relatively transient states that may be situation specific.

The Millon inventories have a unique scoring system which is based on a cut-off system identified by prevalence rates in clinical samples (Millon, 1993; Tringone et al., 2007).
Items are weighted according to how much the items tap into the core construct. Item weights are summed together to create a Total Raw Score for each subscale which is then converted into Base Rate (BR) scores for each scale in line with normative groups (Tringone et al., 2007). BR scores range from 0 to 115 and are a calculated result of summated Raw Scores and adjustments made to specific subscales to help control for biases due to response styles. A BR score of 85 or over indicates that the core traits of that scale play a prominent role in the adolescent’s functioning (McCann, 1999; Millon, 1993; Tringone et al., 2007). A BR of 75 to 84 suggests that the characteristics of the scale are likely to be present as features in the adolescent’s functioning (McCann, 1999; Millon, 1993; Tringone et al., 2007). A BR score of 60 to 74 indicates that some of the characteristics of that scale likely play a role in the adolescent’s functioning (McCann; Millon; Tringone et al.). Millon advises against interpreting BR scores under 60 unless all subscales show low elevations (see Table 3 for BR score ranges and interpretations).

Table 3

*Base Rate (BR) ranges and interpretation*

<table>
<thead>
<tr>
<th>BR Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 or above</td>
<td>Prominence</td>
</tr>
<tr>
<td>75-84</td>
<td>Presence</td>
</tr>
<tr>
<td>60-74</td>
<td>Some characteristics play a role</td>
</tr>
<tr>
<td>&lt; 60</td>
<td>Not interpret (unless all subscales low)</td>
</tr>
</tbody>
</table>

The developers reported acceptable to “quite strong” (Tringone et al., 2007) internal consistency, test-retest reliability, and results of validation procedures (Millon, 1993). Alpha coefficients range from .73 to .87 for the Validity Scales. Reported alpha coefficients for the Personality Pattern scales range from .74 to .90. For the Expressed Concerns scales,
coefficients range from .73 to .91. Finally, the coefficients range from .75 to .89 for the Clinical Syndromes scales. The reliability and validity of the MACI has been further supported by subsequent studies indicating sound psychometric properties. Internal consistency has been reported as ranging from .71 to .93 across the subscales (Blumentritt & Wilson Vanvoorhis, 2004; Salekin, Larrea, & Ziegler, 2002; Velting, Rathus, & Miller, 2000). Concurrent and predictive validity has been indicated by research conducted in both clinical and forensic settings (Hart, 1993; Hiatt & Cornell, 1999; Higgins, 2008; Millon, 1993; Penney, Moretti, & Da Silva, 2008). Areas that have provided support for the MACI’s ability to differentiate personality styles and related dysfunction have included psychopathy, conduct disorder, depression, substance abuse, and childhood abuse (Higgins, 2008; McCann, 1999; Penney et al., 2008).

The normative sample for the construction of the MACI consisted of approximately 700 adolescents from outpatient, residential, and other mental health services (Millon & Davis, 1993) with the majority (79%) being white American (McCann, 1999). The remainder consisted of African American (8%), Hispanic (6%), Native American (3%) and Asian less than (1%). Separate normative ranges were classified for males aged 13 to 15 and 16 to 19 to reflect the changing nature of adolescence, specifically the difference between individuals in early adolescence and those reaching adulthood (McCann, 1999; Millon, 1993).

The MACI was developed to be used in inpatient and outpatient mental health clinics, residential treatment centres, and correctional facilities (McCann, 1999; Millon, 1993). The MACI is used widely for measuring personality in adolescent clinical populations (Salekin et al, 2002). It is recommended for use in research (McCann, 1999; Millon, 1993). Although the MACI is currently used in clinical and forensic adolescent settings in New Zealand (Oxnam, 2005; Oxnam & Vess, 2006, 2008) and research using New Zealand samples indicates that it
may be applicable for New Zealand populations (e.g., Oxnam & Vess, 2006, 2008), to date there are no normative data for New Zealand. Few researchers have explored its applicability for indigenous cultures. An exception is Blumentritt and colleagues (2004) who found the MACI applicable for a sample of Mexican youth who were described as “juvenile offending, educationally at-risk, and substance-dependent” (Blumentritt et al., 2004, p. 64). Thus, a cautionary approach is recommended when using the MACI with unique cultures that are not represented in the original normative population (Millon, 1993).

Procedure

Ethical considerations

Ethics approval. Ethical approval for this study was obtained from the University of Auckland Human Participants’ Ethics Committee (November 23, 2007) for a period of three years (Reference: 2007/350) (see Appendix B).

Agency confidentiality and access to clinical files. As a condition of access to client files, the researcher provided written consent to abide by agency policy of SAFE in respect of client confidentiality and the use of file information to be used solely for the purposes of the current study. At assessment, written consent for their data to be used for the purposes of research was provided by all participants whose files were reviewed. The consent gives permission for the data to be used in an anonymous and aggregate manner.

Data collection. The MACI was administered at assessment as part of a routine procedure that is conducted for every adolescent who is referred to SAFE. Tests were administered and scored with strict adherence to administration and scoring guidelines as detailed in the manual (Millon, 1993). Through this procedure, participant raw scores were converted to BR scores as the manual guides.
The MACI scores and other information on the offender, offence, and victim characteristics were obtained by the primary researcher (eight of the 298 cases used in the final analysis were collected by the researcher’s supervisor) from the hard copy files of participants. Information from files was collected on site at SAFE and recorded on a hard copy data collection form (see Appendix C). Participants were randomly allocated a code number in line with the ethical guidelines of tracking individual participant information without breaching confidentiality; thus, no identifying data were taken off-site. The data were entered into Statistical Package for the Social Sciences (SPSS) version 14 (SPSS, 2005).

**Offender, offence and victim variables of interest**

A number of variables related to offender, offence, and victim characteristics were collected for the purposes of describing the sample and for conducting analyses to address the research questions. All offender background variables were recorded as present if there was evidence in the individual’s file of the variable being present prior to his sexual offending. See Table 4 for a description of the process of how these were operationalised and categorised. All offence-related variables were recorded as present if there was any evidence in the files of the variable. See Table 5 for a description of the process of how these were operationalised and categorised. All victim-related variables were recorded as present according to criteria recommended by a review of previous research (Oxnam, 2005; Oxnam & Vess, 2008; Richardson et al., 2004; Worling, 2001) and expert opinion (J. Worling, personal communication, June 27, 2007) See Table 6 for a description of the process of how these were operationalised and categorised.
Table 4

*Definition of offender variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>In years from MACI scoring form at assessment</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Pākehā/New Zealand European: if this was the exclusive recorded ethnicity.</td>
</tr>
<tr>
<td></td>
<td>Māori: if ethnicity was recorded as exclusively Māori or Māori and any other ethnicity.</td>
</tr>
<tr>
<td></td>
<td>Pacific Island (PI): if ethnicity was recorded as exclusively PI or PI and other ethnicity (other than Māori).</td>
</tr>
<tr>
<td></td>
<td>Other: if recorded ethnicity was not Māori, Pākehā/New Zealand European or Pacific Island.</td>
</tr>
<tr>
<td>Physical Victimisation</td>
<td>Experience of physical assaults by at least one primary caregiver.</td>
</tr>
<tr>
<td>Sexual Victimization</td>
<td>Experience of any unwanted sexual contact, or sexual contact with person who was at least four years older than the adolescent at time of incident. These criteria have been used to measure sexual victimisation in earlier research (e.g., Worling, 2001).</td>
</tr>
<tr>
<td>Exposure to Intimate Partner Violence (IPV)</td>
<td>Exposure to incidents of physical assaults between older family members/primary caregivers.</td>
</tr>
<tr>
<td>High Family Stress</td>
<td>Experience of a high level of on-going stress within the family prior to his sexual offending, such as self-reported or significant other reported family stressful environment.</td>
</tr>
<tr>
<td>Victimisation by Bullying</td>
<td>Experience of verbal, emotional or physical intimidation either by his peers or siblings.</td>
</tr>
<tr>
<td>Perpetration of Bullying</td>
<td>Perpetration of verbal, emotional or physical nonsexual acts of manipulation, teasing or threats.</td>
</tr>
<tr>
<td>Use of Pornography</td>
<td>Viewed pornographic material via the Internet, videos, or magazines.</td>
</tr>
<tr>
<td>Living at Home</td>
<td>Residing with any family-related member at the time of assessment.</td>
</tr>
<tr>
<td>Parental Stability</td>
<td>Biological parents were living together in marriage or de-facto relationship at the time of assessment.</td>
</tr>
<tr>
<td>Stable Relationship with Mother</td>
<td>Consistent, supportive and nonabusive relationship with his biological mother.</td>
</tr>
<tr>
<td>Stable Relationship with Father</td>
<td>Consistent, supportive and nonabusive relationship with his biological father.</td>
</tr>
<tr>
<td>Consensual Sexual Experience with Peers</td>
<td>Consensual sexual intimacy (touching, kissing or intercourse) with a peer of no more than three years difference in age.</td>
</tr>
<tr>
<td>Variable</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>General Offending</td>
<td>Engaged in at least one type of offending behaviour other than sexual offending.</td>
</tr>
<tr>
<td>Criminal Versatility</td>
<td>Dishonesty (stealing/burglary/theft/shoplifting), fire-setting, violence, animal cruelty, property damage (vandalism/tagging), or drug. Categories for criminal versatility were: no other offending, one other type, 2-3 other types and four or more other types of offending.</td>
</tr>
<tr>
<td>Early Offending Onset</td>
<td>Non-sexual or sexual offending behaviours that began at age 12 or before.</td>
</tr>
<tr>
<td>Still at School</td>
<td>Still attending school at assessment.</td>
</tr>
<tr>
<td>Behavioural Problems at School</td>
<td>Severe or frequent problems with attendance, co-operation, and conflict in relationships or offending behaviours (e.g., sexual, dishonesty, violence, drug or property damage).</td>
</tr>
<tr>
<td>Academic/Learning Problems at School</td>
<td>Severe or frequent problems with academic achievement or learning difficulties.</td>
</tr>
<tr>
<td>Level of Denial</td>
<td>Assessed by clinicians at assessment: A Likert scale of 1 (Adolescent FULLY acknowledged ALL aspects of ALL sexual offences) to 6 (Adolescent denied sexual offending).</td>
</tr>
<tr>
<td>Instability of Environment</td>
<td>Multiple moves of living residence or schools.</td>
</tr>
<tr>
<td>Family History (FH) of Sexual Offending</td>
<td>Any other family-related member who had committed sexual offences.</td>
</tr>
<tr>
<td>Family History (FH) of Non-sexual Offending</td>
<td>Any other family member who had committed non-sexual offences (e.g., dishonesty, drug, property damage, violence, animal cruelty, driving).</td>
</tr>
<tr>
<td>Family History (FH) of Physical Victimization</td>
<td>Violence within the family history that did not include perpetration of violence within the current family environment.</td>
</tr>
<tr>
<td>Family History (FH) of Substance Abuse</td>
<td>Alcohol or other drug abuse in the family history.</td>
</tr>
<tr>
<td>Family History (FH) of Physical/Psychological Illness</td>
<td>Severe or chronic psychological or physical illness (e.g., Depression, Psychosis, Cancer).</td>
</tr>
<tr>
<td>Family History (FH) of Economic Hardship</td>
<td>Chronic unemployment or chronic financial poverty.</td>
</tr>
<tr>
<td>Involvement in Hobby or Sports</td>
<td>Engagement in any prosocial recreational activity (e.g., team or individual sports, art, writing, reading, computer games).</td>
</tr>
<tr>
<td>Types of Friends</td>
<td>Classified into four groups (mostly offending supportive, mostly pro-social, mixed and no or limited friends).</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Past or current (at assessment) alcohol or other drug abuse.</td>
</tr>
<tr>
<td>History of Self-harm/Suicide</td>
<td>Prior attempt to self-harm or suicide OR ideation of either.</td>
</tr>
</tbody>
</table>
Table 5

**Definition of offence variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anal Penetration</td>
<td>Actual or attempted anal penetration of at least one victim.</td>
</tr>
<tr>
<td>Vaginal Penetration</td>
<td>Actual or attempted vaginal penetration of at least one victim.</td>
</tr>
<tr>
<td>Exclusively Hands-off</td>
<td>Sexual behaviours which did not include any physical contact with any victim (such as exhibitionism or downloading pornographic material from the Internet).</td>
</tr>
<tr>
<td>Exclusively Genital Touching or Oral</td>
<td>Sexual touching and/or oral contact with genitals of at least one victim and there was no anal or vaginal penetration.</td>
</tr>
<tr>
<td>Ever Bestiality</td>
<td>Any sexual activity with at least one nonhuman animal.</td>
</tr>
<tr>
<td>Use of Force/Threats/Weapons</td>
<td>Any evidence from file of the use of force, weapons, or threats of either during the sexual offence.</td>
</tr>
</tbody>
</table>

Table 6

**Definition of victim variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim age</td>
<td>Sexually offended against at least two child victims. A victim was considered a child if the offender was at least four years older than the victim and the victim was less than 12 years of age at the time of the offence.</td>
</tr>
<tr>
<td>Victim gender</td>
<td>Sexually offended against at least two male victims.</td>
</tr>
<tr>
<td>Victim Relationship</td>
<td>Sexually offended against at least two stranger victims. A stranger victim was defined as any victim who was not known to the offender previous to the offence (i.e., not intrafamilial full, half, step, adopted, whangai or foster siblings, cousins, nieces, or nephews OR known through family or school class mate).</td>
</tr>
</tbody>
</table>

*Inter-rater reliability*

While the main aim of the current research was to explore personality-based classifications using the MACI, a number of offender, offence, and victim variables were
collected using information from clinical files. To assess the reliability of the data collection, a colleague, who was provided permission to access files at SAFE, recorded data from the clinical files of a randomly allocated 20% of the current study sample (n=61). To assess consistency between the two raters, an inter-rater reliability analysis using Cohen’s kappa statistic (k) (Cohen, 1960; Cohen, 1968) was conducted. The kappa statistic measures the strength and significance of the agreement between raters for categorical data (Landis & Koch, 1977). Ranges of reliability values were estimated according to Landis and Koch (p. 165). An inter-rater agreement of “Almost Perfect” was achieved for four (9.7%) of the variables investigated, “Substantial agreement” was achieved for a further 22%, “Moderate” agreement was reached for 31.7%, “Fair” agreement for another 31.7% and “Slight” agreement was found for 4.9%. Three variables were not statistically significant at a p < .05 level. Thus, nearly two thirds (63.4%) of the variables resulted in statistically significant inter-rater agreement, ranging from “Moderate” to “Almost Perfect” and, therefore, overall the results can be considered a reliable pattern of inter-rater agreement. Factors that likely contributed to the limited reliability in approximately one-third (36.6%) of the variables included the lack of clear information regarding these variables in the files (thus, limiting the clarity for raters to define which category the individual falls into on these variables), as well as the lack of clarity in the definition of the variable which again makes it difficult to categorise clearly. Given the considerable efforts to define the offender, offence, and victim variables in this study, the limited inter-rater reliability for approximately one-third of these variables highlights the difficulties inherent in this type of research.
Table 7

Results of Inter-rater analyses for offender, offence, and victim variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K$</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Offender characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>1.00</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Physical Victimisation</td>
<td>0.74</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Sexual Victimisation</td>
<td>0.88</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Exposure to Intimate Partner Violence (IPV)</td>
<td>0.46</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>High Family Stress</td>
<td>0.49</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Victimisation by Bullying</td>
<td>0.43</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Perpetration of Bullying</td>
<td>0.27</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Use of Pornography</td>
<td>0.59</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Living at Home</td>
<td>0.58</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Parental Stability</td>
<td>0.79</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Stable Relationship with Mother</td>
<td>0.33</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Stable Relationship with Father</td>
<td>0.31</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Consensual Sexual Experience with Peers</td>
<td>0.20</td>
<td>NS</td>
</tr>
<tr>
<td>General Offending</td>
<td>0.56</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Criminal Versatility</td>
<td>0.43</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Early Offending Onset</td>
<td>0.15</td>
<td>NS</td>
</tr>
<tr>
<td>Still at School</td>
<td>0.26</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Behavioural Problems at School</td>
<td>0.35</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Academic/Learning Problems at School</td>
<td>0.47</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Level of Denial</td>
<td>0.30</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Instability of Environment</td>
<td>0.38</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Family History (FH) of Sexual Offending.</td>
<td>0.64</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Family History (FH) of Non-sexual Offending</td>
<td>0.29</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Family History (FH) of Physical Victimisation</td>
<td>0.43</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Family History (FH) of Substance Abuse</td>
<td>0.64</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Family History (FH) of Physical/Psychological Illness</td>
<td>0.44</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Family History (FH) of Economic Hardship</td>
<td>.24</td>
<td>NS</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>Involvement in Hobby or Sports</td>
<td>.39</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Types of Friends</td>
<td>.55</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>.61</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>History of Self-harm/Suicide</td>
<td>.45</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offence characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anal Penetration</td>
</tr>
<tr>
<td>Vaginal Penetration</td>
</tr>
<tr>
<td>Exclusively Hands-off</td>
</tr>
<tr>
<td>Exclusively Genital Touching or Oral</td>
</tr>
<tr>
<td>Ever Bestiality</td>
</tr>
<tr>
<td>Use of Force/Threats/Weapons</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Victim characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim Age</td>
</tr>
<tr>
<td>Victim Gender</td>
</tr>
<tr>
<td>Victim Relationship</td>
</tr>
</tbody>
</table>

*Note. NS denotes nonsignificant results at the .05 level.*

**Data analyses**

Cluster analyses. Cluster Analysis (CA) is used in research to explore the organisation of data into meaningful structures or groups which are also referred to as clusters, groups, taxonomies, or profiles when exploring personality characteristics (Hair & Black, 2000; Hartigan, 1975; Sharma, 1996; Wales, 2005). CA has been used to identify clusters (taxonomies) in several fields of research, including Biology, Psychology, Marketing, Engineering, Political Science, and Sociology (Hartigan, 1975; Higgins, 2008). The aim is to ascertain a set of clusters whereby the cases (individuals) within each cluster are similar to each other (homogenous) but different to other clusters on the characteristics that are measured (Everitt & Dunn, 1991; Hair & Black, 2000; Sharma, 1996). Thus, CA allows us to explore
qualities of subgroups with limited loss of information (Bijnen, 1973; Hair & Black, 2000). However, with decreasing cluster numbers, there is also decreased homogeneity within the clusters (Hair & Black, 2000). Consideration must be given to simple parsimony of the fewest clusters coupled with meaningful homogeneity of characteristics within clusters (Hair & Black, 2000).

In the current study, all continuous variables were screened for skewness, kurtosis, and variance to ascertain any major violation to underlying assumptions of intended analyses as recommended (Hair & Black 2000; Pallant, 2001).

The following cluster techniques were used in the current research: Ward’s method (Ward, 1963) and squared Euclidean distances, Average Linkage (Between-groups) using Cosine, Average Linkage (Within Groups) using squared Euclidean distance, and k-means using squared Euclidean distances. All analyses were conducted using Statistical Package for the Social Sciences (SPSS) version 14 (SPSS, 2005).

Although other researchers have included the Expressed Concerns and Clinical Syndromes scales in their cluster analyses (e.g., Higgins, 2008), I used only the Personality Patterns scales for the cluster analyses due to it being considered more in line with Millon’s theoretical perspective of personality (Millon, 1993; Millon & Davis, 1993). This is similar to how Oxnam and Vess (2006, 2008) conducted their cluster analysis with the Personality Pattern scales of the MACI. More specifically, the Personality Patterns scales were based closely on Millon’s theory of personality. The Expressed Concerns scales were specifically designed to capture the areas that most concern adolescents at the time of MACI administration, thus contribute to personality less than trait factors that are captured in the Personality Patterns scales. The Clinical Syndrome scales may be contextually-related and may only be capturing situational clinical difficulties important for the time of the MACI
administration. Thus, I considered them less persistent personality factors. Thus, BR scores of the 12 Personality Patterns scales were used for the CA analyses of personality profiles.

Subsequent to an optimum number of clusters (personality-based profile groups) being deemed the best solution, a series of analyses of variance and Chi-square tests were conducted to investigate relationships with profile groups on the remaining MACI scales (Modifying Indices, Expressed Concerns and Clinical Syndromes) as well as offender, offence, and victim characteristics. Post-hoc analyses were conducted for significant analysis of variance tests. The results of statistical tests are reported in Chapter 3.
CHAPTER 3

RESULTS

For the purposes of exploring a classification of male adolescent sex offenders based on personality characteristics, the Personality Patterns scales of the MACI were entered into a cluster analysis technique. Once the optimum cluster solution was identified, the Modifying Indices, Expressed Concerns, and Clinical Syndromes, as described in Chapter 2, were used as dependent variables to investigate differences across groups. Subsequently, a number of offender, offence, and victim characteristics were subjected to Chi-square tests for independence to explore relationships with the identified groups.

The results of the current study will be presented in three sections. The first section describes a number of cluster analyses that were conducted for the purpose of investigating whether a meaningful set of personality-based groups existed. Section 2 presents the results of a series of tests for analysis of variance that were conducted for the purposes of exploring differences across personality-based profiles for the Personality Patterns, Modifying Indices, Expressed Concerns, and Clinical Syndromes subscales. Section 3 describes the results for a series of Chi-square tests that were conducted to investigate the relationships among personality-based profiles and offender, offence, and victim characteristics.

Section 1: Cluster Analysis and results

A commonly used method for clustering of cases is the hierarchical Ward’s method (Ward, 1963). Squared Euclidean distance is a measure that is based on a Pythagorean measure of calculating the distance between two objects and is a commonly used technique for cluster analyses of continuous variables from personality measures (Borgen & Barnett, 1987; Wales, 2005; Worling, 2001).
Agglomerative hierarchical cluster techniques, such as Ward’s method (Ward, 1963), begin with each case as a separate cluster and, at each step, joins cases with another cluster based on the optimum similarity until all cases are formed into one large cluster (Chatfield & Collins, 1980; Gordon, 1981; Hair & Black, 2000). Ward’s method assigns cases to clusters by calculating the total sum of squared deviations from the mean of the cluster (Ward, 1963). This method assigns cases to groups based on minimising within-group variability and maximising between-group variability (Bijnen, 1973; Ward, 1963).

A number of output measures are used to interpret the output. These include the tree-diagram and the coefficient column of the Agglomeration Schedule. The tree-diagram (sometimes referred to as a dendrogram) is a visual display of the steps used in the clustering process and can guide interpretation of the cohesiveness and number of clusters through the identification of gaps where new cluster groups have been formed. The coefficient column assists by providing values (coefficients) for each cluster step. Using these values, we can calculate change scores which help us identify the cluster groupings that have the largest differences in the coefficients. Thus, the largest difference in the coefficients is likely to be most useful grouping (succeeding groupings with small coefficient change provide little further distinguishing between cases).

In the current study, using Ward’s method and squared Euclidean distances, the tree-diagram and the coefficient column of the Agglomeration Schedule table indicated that either three or five clusters provided the most within-group similarity and between-group variability (see Tables 8 and 9 for means). A more detailed inspection of the means across clusters indicated that the five cluster solution (see Table 9) had two groups (clusters 4 and 5) with no mean scores over the 75 cut-off BR points. This was considered of limited use due to the
presence of two groups without mean score elevations. Thus, a three cluster solution was
demed the best solution.

Table 8

Mean BR scores (and standard deviations) on each MACI Personality Patterns scales for three
custers using Ward’s method (squared Euclidean distances)

<table>
<thead>
<tr>
<th>MACI Scale</th>
<th>Cluster 1 (n=97)</th>
<th>Cluster 2 (n=73)</th>
<th>Cluster 3 (n=128)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introversive*+</td>
<td>73.76 (13.82)a</td>
<td>58.81 (11.80)b</td>
<td>48.34 (15.69)c</td>
</tr>
<tr>
<td>Inhibited*+</td>
<td>75.14 (12.80)a</td>
<td>49.93 (16.40)b</td>
<td>46.12 (17.43)b</td>
</tr>
<tr>
<td>Doleful*+</td>
<td>68.65 (14.02)a</td>
<td>61.55 (18.64)b</td>
<td>26.76c (13.02)c</td>
</tr>
<tr>
<td>Submissive*</td>
<td>54.40 (16.23)b</td>
<td>52.03 (10.58)b</td>
<td>62.67 (11.83)a</td>
</tr>
<tr>
<td>Dramatizing*+</td>
<td>35.24 (13.62)c</td>
<td>54.70 (9.99)b</td>
<td>61.91 (12.77)a</td>
</tr>
<tr>
<td>Egotistic*+</td>
<td>30.71 (12.51)c</td>
<td>47.23 (10.15)b</td>
<td>56.53 (11.42)a</td>
</tr>
<tr>
<td>Unruly*+</td>
<td>61.53 (17.07)b</td>
<td>75.48 (12.68)a</td>
<td>57.41 (17.70)b</td>
</tr>
<tr>
<td>Forceful*+</td>
<td>47.70 (22.63)b</td>
<td>58.74 (20.51)a</td>
<td>32.97 (17.33)c</td>
</tr>
<tr>
<td>Conforming*+</td>
<td>38.52 (12.64)c</td>
<td>46.62 (10.60)b</td>
<td>59.45 (15.22)a</td>
</tr>
<tr>
<td>Oppositional*+</td>
<td>70.23 (11.95)a</td>
<td>72.53 (8.53)a</td>
<td>46.42 (16.95)b</td>
</tr>
<tr>
<td>Self-Demeaning*+</td>
<td>68.74 (13.74)a</td>
<td>52.88 (17.50)b</td>
<td>26.38 (10.74)c</td>
</tr>
<tr>
<td>Borderline Tendency*+</td>
<td>60.91 (16.25)a</td>
<td>57.08 (17.01)a</td>
<td>27.25 (11.05)b</td>
</tr>
</tbody>
</table>

Notes. The symbol * denotes reaching statistical significance at the .004 level.
The symbol + denotes a large effect size for the scale.
Values with the same lower case letter (a, b and c) were not statistically different from each other.
### Table 9

**Mean BR scores on each MACI Personality Patterns scale for five clusters using Ward’s method (squared Euclidean distances)**

<table>
<thead>
<tr>
<th>MACI Scale</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Cluster 4</th>
<th>Cluster 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Valid N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introversive</td>
<td>43</td>
<td>54</td>
<td>73</td>
<td>83</td>
<td>45</td>
</tr>
<tr>
<td>Inhibited</td>
<td>74.23 (13.56)</td>
<td>73.39 (14.13)</td>
<td>58.81 (11.80)</td>
<td>50.75 (14.48)</td>
<td>43.89 (16.99)</td>
</tr>
<tr>
<td>Doleful</td>
<td>82.07 (11.15)</td>
<td>69.63 (11.32)</td>
<td>49.93 (16.40)</td>
<td>52.45 (16.42)</td>
<td>34.44 (12.62)</td>
</tr>
<tr>
<td>Submissive</td>
<td>61.42 (15.45)</td>
<td>74.40 (9.51)</td>
<td>61.55 (18.74)</td>
<td>25.22 (10.88)</td>
<td>29.60 (15.99)</td>
</tr>
<tr>
<td>Dramatizing</td>
<td>62.86 (18.84)</td>
<td>47.67 (9.57)</td>
<td>52.03 (10.52)</td>
<td>67.59 (10.26)</td>
<td>53.60 (8.85)</td>
</tr>
<tr>
<td>Egotistic</td>
<td>37.98 (10.24)</td>
<td>33.06 (15.56)</td>
<td>54.70 (9.99)</td>
<td>60.72 (14.05)</td>
<td>64.11 (9.77)</td>
</tr>
<tr>
<td>Unruly</td>
<td>34.37 (8.24)</td>
<td>27.79 (14.50)</td>
<td>47.23 (10.15)</td>
<td>56.45 (13.27)</td>
<td>56.69 (6.94)</td>
</tr>
<tr>
<td>Forceful</td>
<td>52.93 (16.57)</td>
<td>68.37 (14.22)</td>
<td>75.48 (12.69)</td>
<td>49.10 (13.91)</td>
<td>72.73 (13.14)</td>
</tr>
<tr>
<td>Conforming</td>
<td>30.28 (14.62)</td>
<td>61.57 (17.76)</td>
<td>58.74 (20.51)</td>
<td>25.96 (11.20)</td>
<td>45.89 (19.22)</td>
</tr>
<tr>
<td>Oppositional</td>
<td>49.26 (6.12)</td>
<td>29.96 (9.57)</td>
<td>46.62 (10.60)</td>
<td>64.05 (16.79)</td>
<td>50.98 (7.55)</td>
</tr>
<tr>
<td>Self-Demeaning</td>
<td>63.28 (13.20)</td>
<td>75.76 (7.11)</td>
<td>72.53 (8.53)</td>
<td>38.47 (15.08)</td>
<td>61.09 (8.12)</td>
</tr>
<tr>
<td>Borderline Tendency</td>
<td>48.40 (12.31)</td>
<td>70.87 (11.41)</td>
<td>57.08 (17.01)</td>
<td>25.12 (9.81)</td>
<td>31.18 (12.18)</td>
</tr>
</tbody>
</table>

Further analyses were conducted using Within Group Linkage (squared Euclidean distances) and Between Groups Linkage (Cosine). Within Group Linkage measures the distance between all inter-group or intra-group pairs to determine the optimum clusters. Between Groups Linkage calculates the distance between clusters (inter-group) based on cluster means. These two cluster techniques were conducted in response to a general consensus in the field that cluster analyses should be conducted with more than one cluster technique (Worling, 2001). Furthermore, these two cluster techniques have been used for exploration of adolescent sex offenders on a personality based measure using continuous variables (e.g., Worling, 2001). Between two and six clusters were chosen for parameters, as
cluster solutions outside these parameters were considered impractical for the purposes of the current study. Closer evaluation showed that these analyses resulted in no useful cluster solutions due to: 1) the sample size of clusters being too small (e.g., having only two or three individuals assigned to a cluster) or 2) the groups not being differentiated in a meaningful way (e.g., there was more than one group with no Personality Patterns scale elevations 75 BR points or more).

Based on all analyses, a cluster number of three, using Ward’s method (squared Euclidean distances), was deemed to provide the most useful grouping. To further validate this, the 12 Personality Patterns scales were subjected to \(k\)-means, a nonhierarchical technique (Borgen & Barnett, 1987), stating a cluster number of three. \(k\)-means clustering assigns all cases to the number of clusters previously considered optimum (Wales, 2005). The \(k\)-means clustering begins with randomly assigned cases to clusters and moves the cases into each cluster based on maximising variability between groups and minimising within group variability (Borgen & Barnett, 1987; Wales, 2005). Although the \(k\)-means technique is more recent and less commonly used than Ward’s method (Borgen & Barnett, 1987) it is considered appropriate for samples with continuous dependent variables. See Table 10 for the results of this clustering method. These results showed a similar cluster structure to the Ward’s method; thus, providing validity for the earlier cluster solution.
Table 10

Final cluster centres (mean scores) and standard deviations on each of the MACI Personality Patterns scales for the three clusters derived from k-means clustering

<table>
<thead>
<tr>
<th>MACI scale</th>
<th>Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (n=87)</td>
</tr>
<tr>
<td>Introversive</td>
<td>53.66</td>
</tr>
<tr>
<td>Inhibited</td>
<td>42.85</td>
</tr>
<tr>
<td>Doleful</td>
<td>50.44</td>
</tr>
<tr>
<td>Submissive</td>
<td>51.48</td>
</tr>
<tr>
<td>Dramatizing</td>
<td>58.15</td>
</tr>
<tr>
<td>Egotistic</td>
<td>51.17</td>
</tr>
<tr>
<td>Unruly</td>
<td>76.80</td>
</tr>
<tr>
<td>Forceful</td>
<td>60.08</td>
</tr>
<tr>
<td>Conforming</td>
<td>46.97</td>
</tr>
<tr>
<td>Oppositional</td>
<td>68.77</td>
</tr>
<tr>
<td>Self-Demeaning</td>
<td>42.10</td>
</tr>
<tr>
<td>Borderline Tendency</td>
<td>48.18</td>
</tr>
</tbody>
</table>

Of note, for the k-means clustering, cluster 1 appears to be similar to the cluster 2 of Ward’s method with the highest elevation on the Unruly scale (76.80). Cluster 2 of the k-means analysis appears to be similar to the Ward’s method cluster 3 with no mean score elevations at, or above, the clinical cut-off score of 75 BR points. Cluster 3 of the k-means appears to be similar to cluster 1 of the Ward’s method technique, with the highest elevations on the Inhibited, Introversive and Oppositional scales. However, these elevations did not quite reach the 75 cut-off (72.66, 71.71, and 72.26 respectively).

Due to the superiority of results generated from a three-cluster solution using Ward’s method and squared Euclidean distances, coupled with its well-documented use in other
relevant research (e.g., Oxnam & Vess, 2006, 2008), this solution was used in further analyses. After close inspection of the configurations of mean scores on the Personality Patterns scales for each cluster, the three profiles were named Detached (cluster 1), Offending Supportive (cluster 2) and Typical Teen/Restricted (cluster 3).

Section 2: Multivariate analysis of variance

Personality Patterns scales

A one-way between-groups Multivariate Analysis of Variance (MANOVA) was performed to investigate personality-based profile groups on personality styles to further validate the recognised personality clusters. This test is recommended for exploring differences using continuous data with a number of dependent variables and expected relationships among dependent variables (Pallant, 2001). The 12 Personality Patterns scales of the MACI were used as dependent variables. The independent variable was the three-cluster solution. Before proceeding with the MANOVA, the data were tested to assess its conformity to the underlying assumptions related to normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity as guided by Pallant. No serious violations were noted. To control for Type I error, a new adjusted alpha of .004 was used for statistical significance. This value of .004 was obtained by dividing the alpha coefficient at the .05 level by the number of dependent variables (.05/12).

There was a statistically significant difference across personality profile groups on the combined dependent variables: $F(24, 570)=29.08, p < .05$, Pillai’s Trace=1.101; partial eta squared=.55. According to Cohen’s (1988) guidelines (.01=small effect, .06=moderate effect, .14=large effect), this indicates a large effect size.
When the results for the dependent variables were considered separately, all Personality Patterns scales reached statistical significance using a Bonferroni adjusted alpha level of .004. The following are the results of the separate tests: Introversive, $F(2, 295)=88.28, p < .004$, partial eta squared=.37; Inhibited, $F(2, 295)=101.48, p < .004$, partial eta squared=.41; Doleful, $F(2, 295)=252.20, p < .004$, partial eta squared=.63; Submissive, $F(2, 295)=18.89, p < .004$, partial eta squared=.11; Dramatizing, $F(2, 295)=129.97, p < .004$, partial eta squared=.47; Egotistic, $F(2, 295)=139.83, p < .004$, partial eta squared=.49; Unruly, $F(2, 295)=28.96, p < .004$, partial eta squared=.16; Forceful, $F(2, 295)=41.10, p < .004$, partial eta squared=.22; Conforming, $F(2, 295)=68.22, p < .004$, partial eta squared=.32; Oppositional, $F(2, 295)=120.05, p < .004$, partial eta squared=.45; Self-Demeaning, $F(2, 295)=276.60, p < .004$, partial eta squared=.65; Borderline Tendency, $F(2, 295)=180.41, p < .004$, partial eta squared=.55.

According to Cohen’s (1988) guidelines, 11 of the 12 subscales demonstrated large effect sizes (Introversive, Inhibited, Doleful, Dramatizing, Egotistic, Unruly, Forceful, Conforming, Oppositional, Self-Demeaning and Borderline Tendency). One subscale showed a moderate to large effect size (Submissive).

Post-hoc comparisons with a Bonferroni correction indicated a pattern of results that validated the three cluster solution for Personality Patterns scales as follows: The mean score for the Group 1 ($M=73.76, SD=13.82$) on the Introversive scale was significantly higher as compared to both Group 2 ($M=58.81, SD =11.80$), $p < .004$ and Group 3 ($M=48.34, SD=15.69$) scores, $p < .004$. The mean score for Group 2 ($M=58.81, SD =11.80$) was significantly higher as compared to Group 3 ($M=48.34, SD=15.69$), $p < .004$.

On the Inhibited scale, the mean of Group 1 ($M=75.14, SD=12.80$) was significantly higher as compared to both Group 2 ($M=49.93, SD=16.40$), $p < .004$ and Group 3 ($M=46.12,$
There was no significant difference between the means of Group 2 ($M=49.93, SD=16.40$) and Group 3 ($M=46.18, SD=17.43$), $p > .004$.

The mean score for the Group 1 ($M=68.65, SD=14.02$) on the Doleful scale was significantly higher as compared to both Group 2 ($M=61.55, SD=18.74$), $p < .004$ and Group 3 ($M=26.76, SD=13.02$), $p < .004$. The mean score for Group 2 ($M=61.55, SD=18.74$) was significantly higher as compared to Group 3 ($M=26.76, SD=13.02$), $p < .004$.

On the Submissive scale there was no significant mean difference between Group 1 ($M=54.40, SD=16.23$) and Group 2 ($M=52.03, SD=10.52$), $p > .004$. The mean score for Group 3 ($M=62.67, SD=11.83$) was significantly higher as compared to both Group 1 ($M=54.40, SD=16.23$), $p < .004$ and Group 2 ($M=52.03, SD=10.52$), $p < .004$.

The mean of Group 3 ($M=61.91, SD=12.77$) was significantly higher as compared to both Group 1 ($M=35.24, SD=13.62$), $p < .004$ and Group 2 ($M=54.70, SD=9.99$), $p < .004$ on the Dramatizing scale. The mean of Group 2 ($M=54.70, SD=9.99$) was significantly higher as compared to Group 1 ($M=35.24, SD=13.62$), $p < .004$.

On the Egotistic scale the mean of Group 3 ($M=56.53, SD=11.42$) was significantly higher as compared to Group 1 ($M=30.71, SD=12.51$), $p < .004$ and Group 2 ($M=47.23, SD=10.15$), $p < .004$. The mean of Group 2 ($M=47.23, SD=10.15$) was significantly higher as compared to Group 1 ($M=30.71, SD=12.51$), $p < .004$. However, none of the groups showed an elevation above 60 BR points.

The mean of Group 2 ($M=75.48, SD=12.69$) on the Unruly scale was significantly higher as compared to both Group 1 ($M=61.53, SD=17.07$), $p < .004$ and Group 3 ($M=57.41, SD=17.70$), $p < .004$. There was no significant difference between the means of Group 1 ($M=61.53, SD=17.07$) and Group 3 ($M=57.41, SD=17.70$), $p > .004$. 
Although the mean of Group 2 (\(M=58.74, SD=20.51\)) on the Forceful scale was significantly higher as compared to the means of Group 1 (\(M=47.70, SD=22.63\)), \(p < .004\) and Group 3 (\(M=32.97, SD=17.33\)), \(p < .004\), with Group 1 (\(M=47.70, SD=22.63\)) also being significantly higher as compared to Group 3 (\(M=32.97, SD=17.33\)), \(p < .004\). None of the groups showed an elevation above 60 BR points.

The mean of Group 3 (\(M=59.45, SD=15.52\)) on the Conforming scale was significantly higher as compared to the means of both Group 2 (\(M=46.62, SD=10.60\)), \(p < .004\) and Group 1 (\(M=38.52, SD=12.64\)), \(p < .004\). The mean of Group 2 (\(M=46.62, SD=10.60\)) was significantly higher as compared to Group 1 (\(M=38.52, SD=12.64\)), \(p < .004\), however, no elevations were over 60.

On the Oppositional scale, there was no significant difference between the means of Group 1 (\(M=70.23, SD=11.95\)) and Group 2 (\(M=72.53, SD=8.53\)), \(p > .004\). However, both Group 1 (\(M=70.23, SD=11.95\)), \(p < .004\) and Group 2 (\(M=72.53, SD=8.53\)), \(p < .004\) were significantly higher as compared to Group 3 (\(M=46.42, SD=16.95\)).

The mean of Group 1 (\(M=68.74, SD=13.74\)) on the Self-Demeaning scale was significantly higher as compared to both Group 2 (\(M=52.88, SD=17.50\)), \(p < .004\) and Group 3 (\(M=26.37, SD=10.74\)), \(p < .004\). The mean score of Group 2 (\(M=52.88, SD=17.50\)) was significantly higher as compared to Group 3 (\(M=26.37, SD=10.74\)), \(p < .004\).

On the Borderline scale, there was no mean significant difference between Group 1 (\(M=60.91, SD=16.25\)) and Group 2 (\(M=57.08, SD=17.01\)), \(p > .004\); however, both Groups 1 (\(M=60.91, SD=16.25\)), \(p < .004\) and Group 2 (\(M=57.08, SD=17.01\)), \(p < .004\) were significantly higher as compared to Group 3 (\(M=27.25, SD=11.05\)).
Summary of MANOVA (Personality Patterns scales)

In summary, the Detached group had significantly higher mean scores as compared to the other two groups on the Introversive, Inhibited, Doleful, and Self-Demeaning scales, with the Inhibited scale reaching the cut-off for clinical presence. The Offending Supportive group had a significantly higher score as compared to the other two groups on the Unruly scale and met the cut-off for clinical presence.

The Detached and Offending Supportive groups were similarly significantly higher as compared to the Typical Teen/Restricted group on the Oppositional and Borderline Tendency scales. On the Oppositional scale both the Detached and Offending Supportive groups approached the recommended cut-off BR points for clinical presence. Only the Detached group had a mean BR score at or above 60 on the Borderline Tendency scale.

The Typical Teen/Restricted group had significantly higher scores as compared to the other two groups on the Submissive and the Dramatizing scales; however, no mean scores for the Typical Teen/Restricted group reached the BR score of 75 or above. The Egotistic, Forceful, and Conforming Personality Pattern scales had no elevations of 60 or above BR points for any of the groups. All scale differences had large effect sizes, except for the Submissive scale, which had a moderate to large effect size.

Modifying Indices, Expressed Concerns, and Clinical Syndromes scales

A one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate personality-based profile group differences on response styles, adolescent concerns, and clinical symptoms. The 18 scales of the MACI (three Modifying indices, eight Expressed Concerns scales, and seven Clinical Syndromes scales) were used as dependent variables. The independent variable was the three cluster solution identified using Ward’s method and squared Euclidean distances. Before proceeding with the MANOVA, the
data were tested to assess conformity to the underlying assumptions related to normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity as guided by Pallant (2001). No serious violations were noted. A new adjusted alpha of .002 (.05/18) was calculated to test for significant differences.

There was a statistically significant difference between personality profile groups on the combined dependent variables: \( F(36, 558)=17.01, p < .05, \) Pillai’s Trace=1.05; partial eta squared=.52. When the results for the dependent variables were considered separately, all Clinical Syndromes, Expressed Concerns, and response styles reached statistical significance using a Bonferroni adjusted alpha level of .002 (see Table 11). The following are the results of the separate scales: Disclosure Index, \( F(2, 295)=251.68, p < .002, \) partial eta squared =.63; Desirability Index, \( F(2, 295)=8.09, p < .002, \) partial eta squared =.05; Debasement Index, \( F(2, 295)=275.28, p < .002, \) partial eta squared =.65; Identity Diffusion, \( F(2, 295)=111.78, p < .002, \) partial eta squared =.43; Self-Devaluation, \( F(2, 295)=272.82, p < .002, \) partial eta squared =.65; Body Disapproval, \( F(2, 295)=54.24, p < .002, \) partial eta squared =.27; Sexual Discomfort, \( F(2, 295)=14.49, p < .002, \) partial eta squared =.09; Peer Insecurity, \( F(2, 295)=71.90, p < .002, \) partial eta squared =.33; Social Insensitivity, \( F(2, 295)=34.97, p < .002, \) partial eta squared =.19; Family Discord; \( F(2, 295)=28.83, p < .002, \) partial eta squared =.16; Childhood Abuse, \( F(2, 295)=41.43, p < .002, \) partial eta squared =.22; Eating Dysfunctions, \( F(2, 295)=47.87, p < .002, \) partial eta squared =.25; Substance-Abuse Proneness, \( F(2, 295)=36.01, p < .002, \) partial eta squared =.20; Delinquent Predisposition, \( F(2, 295)=28.75, p < .002, \) partial eta squared =.16; Impulsive Propensity, \( F(2, 295)=50.95, p < .002, \) partial eta squared =.28; Anxious Feelings, \( F(2, 295)=15.62, p < .002, \) partial eta squared =.10; Depressive Affect, \( F(2, 295)=186.66, p < .002, \) partial eta squared =.56; and Suicidal Tendency, \( F(2, 295)=98.58, p < .002, \) partial eta squared =.40.
Fifteen of the 18 subscales demonstrated large effect sizes (Disclosure Index, Debasement Index, Identity Diffusion, Self-Devaluation, Body Disapproval, Peer Insecurity, Social Insensitivity, Family Discord, Childhood Abuse, Eating Dysfunctions, Substance-Abuse Proneness, Suicidal Tendency, Delinquent Predisposition, Impulsive Propensity, Depressive Affect and Substance-Abuse Proneness). Two subscales showed moderate to large effect sizes (Sexual Discomfort and Anxious Feelings) and one scale (Desirability Index) showed a small to moderate effect size.
Table 11

Mean scores (and standard deviations) of the MACI Modifying Indices, Expressed Concerns, and Clinical Syndromes scales for three identified the profile groups

<table>
<thead>
<tr>
<th>MACI Scale</th>
<th>(1) Detached</th>
<th>(2) Offending Supportive</th>
<th>(3) Typical Teen/Restricted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosure*</td>
<td>71.79 (13.81)a</td>
<td>62.05 (9.29)b</td>
<td>33.39 (14.83)c</td>
</tr>
<tr>
<td>Desirability*</td>
<td>52.80 (18.54)b</td>
<td>59.93 (17.04)b</td>
<td>61.98 (16.47)a</td>
</tr>
<tr>
<td>Debasement*</td>
<td>73.76 (13.73)a</td>
<td>57.52 (11.90)b</td>
<td>39.83 (6.89)c</td>
</tr>
<tr>
<td>Identity Diffusion*</td>
<td>64.69 (19.30)a</td>
<td>55.79 (16.08)b</td>
<td>33.74 (12.83)c</td>
</tr>
<tr>
<td>Self-Devaluation*</td>
<td>76.88 (18.82)a</td>
<td>51.67 (16.32)b</td>
<td>26.20 (13.70)c</td>
</tr>
<tr>
<td>Body Disapproval*</td>
<td>49.54 (27.84)a</td>
<td>29.45 (21.43)b</td>
<td>19.76 (14.60)b</td>
</tr>
<tr>
<td>Sexual Discomfort*</td>
<td>58.94 (17.39)ab</td>
<td>53.27 (15.32)b</td>
<td>66.10 (16.87)a</td>
</tr>
<tr>
<td>Peer Insecurity*</td>
<td>73.65 (21.70)a</td>
<td>41.47 (21.51)b</td>
<td>42.90 (20.42)b</td>
</tr>
<tr>
<td>Social Insensitivity*</td>
<td>49.30 (14.58)b</td>
<td>66.62 (14.10)a</td>
<td>59.91 (12.88)a</td>
</tr>
<tr>
<td>Family Discord*</td>
<td>65.94 (17.80)b</td>
<td>76.18 (12.91)a</td>
<td>57.23 (18.64)c</td>
</tr>
<tr>
<td>Childhood Abuse*</td>
<td>59.12 (26.66)a</td>
<td>47.75 (25.86)a</td>
<td>29.37 (22.38)b</td>
</tr>
<tr>
<td>Eating Dysfunctions*</td>
<td>37.24 (27.59)a</td>
<td>20.44 (15.64)b</td>
<td>12.85 (9.68)b</td>
</tr>
<tr>
<td>Substance-Abuse Proneness*</td>
<td>52.71 (23.93)a</td>
<td>60.66 (23.40)a</td>
<td>33.80 (22.70)b</td>
</tr>
<tr>
<td>Delinquent Predisposition*</td>
<td>56.51 (16.27)c</td>
<td>74.37 (14.20)a</td>
<td>63.96 (14.93)b</td>
</tr>
<tr>
<td>Impulsive Propensity*</td>
<td>66.65 (18.71)a</td>
<td>73.37 (14.91)a</td>
<td>48.02 (20.56)b</td>
</tr>
<tr>
<td>Anxious Feelings*</td>
<td>61.15 (19.92)a</td>
<td>48.04 (13.98)b</td>
<td>58.55 (13.10)a</td>
</tr>
<tr>
<td>Depressive Affect*</td>
<td>83.51 (14.09)a</td>
<td>65.10 (19.04)b</td>
<td>38.59 (18.83)c</td>
</tr>
<tr>
<td>Suicidal Tendency*</td>
<td>49.86 (25.13)a</td>
<td>34.16 (21.76)b</td>
<td>14.35 (9.31)c</td>
</tr>
</tbody>
</table>

Notes. The symbol * denotes reaching statistical significance at the .002 level. Values with the same letter (a, b and c) were not statistically different.

On the Disclosure Index, the mean score for Group 1 ($M=71.79$, $SD=13.81$) was significantly higher as compared to both Group 2 ($M=62.05$, $SD=9.29$), $p < .002$ and Group 3
The mean score for Group 2 ($M=62.05$, $SD =9.29$) was also significantly higher as compared to Group 3 ($M=33.39$, $SD =14.83$), $p < .002$.

The mean score for Group 3 ($M=61.98$, $SD =16.47$) on the Desirability Index was significantly higher as compared to Group 1 ($M=52.80$, $SD =18.54$), $p < .002$. No significant differences in mean scores were found between Group 1 ($M=52.80$, $SD =18.54$) and Group 2 ($M=59.93$, $SD =17.04$), $p > .002$ or between Group 3 ($M=61.98$, $SD =16.47$) and Group 2 ($M=59.93$, $SD =17.04$), $p > .002$.

On the Debasement Index, the mean of Group 1 ($M=73.76$, $SD =13.73$) was significantly higher as compared to both Group 2 ($M=57.52$, $SD =11.90$), $p < .002$ and Group 3 ($M=39.83$, $SD =6.90$), $p < .002$. The mean score for Group 2 ($M=57.52$, $SD =11.90$) was significantly higher as compared to Group 3 ($M=39.83$, $SD =6.90$), $p < .002$.

The mean score for Group 1 ($M=64.69$, $SD =19.30$) on the Identity Diffusion scale was significantly higher as compared to Group 2 ($M=55.79$, $SD =16.08$), $p < .002$ and Group 3 ($M=33.74$, $SD =12.83$), $p < .002$. The mean score for Group 2 ($M=55.79$, $SD =16.08$) was significantly higher as compared to Group 3 ($M=33.74$, $SD =12.83$), $p < .002$.

On the Self-Devaluation scale, the mean score for Group 1 ($M=76.88$, $SD =18.82$) was significantly higher as compared to both Group 2 ($M=51.67$, $SD =16.32$), $p < .002$ and Group 3 ($M=26.20$, $SD =13.70$), $p < .002$. The mean score for Group 2 ($M=51.67$, $SD =16.32$) was significantly higher as compared to Group 3 ($M=26.20$, $SD =13.70$), $p < .002$.

The mean score for Group 1 ($M=49.54$, $SD =27.84$) on the Body Disapproval scale was significantly higher as compared to Group 2 ($M=29.45$, $SD =21.43$), $p < .002$ and Group 3 ($M=19.76$, $SD =14.60$), $p < .002$. There was no significant mean difference between Group 2 ($M=29.45$, $SD =21.43$) and Group 3 ($M=19.76$, $SD =14.60$), $p > .002$. No mean scores reached 60 BR points.
On the Sexual Discomfort scale, the mean score for Group 3 (M=66.10, SD =16.87) was significantly higher as compared to Group 2 (M=53.27, SD =15.32), p < .002. However, there was no significant differences between Group 3 (M=66.10, SD =16.87) and Group 1 (M=58.94, SD =17.39), p > .002 or between Group 1 (M=58.94, SD =17.39) and Group 2 (M=53.27, SD =15.32), p > .002.

The mean score for Group 1 (M=73.65, SD =21.70) on the Peer Insecurity scale was significantly higher as compared to both Group 2 (M=41.47, SD =21.51), p < .002 and Group 3 (M=42.90, SD =20.42), p < .002. There was no significant difference between Group 2 (M=41.47, SD =21.51) and Group 3 (M=42.90, SD =20.42), p > .002.

On the Social Insensitivity scale, the mean score for Group 2 (M=66.62, SD =14.10) was significantly higher as compared to Group 1 (M=49.30, SD =14.58), p < .002. The mean score for Group 3 (M=59.91, SD =12.88) was significantly higher as compared to for Group 1 (M=49.30, SD =14.58), p < .002. There was no difference in mean scores between Group 2 (M=66.62, SD =14.10) and Group 3 (M=59.91, SD =12.88), p > .002.

On the Family Discord subscale the mean score for Group 2 (M=76.18, SD =12.91) was significantly higher as compared to both Group 1 (M=65.94, SD =17.80), p < .002 and Group 3 (M=57.23, SD =18.64), p < .002. The mean score for Group 1 (M=65.94, SD =17.80) was significantly higher as compared to Group 3 (M=57.23, SD =18.64), p < .002.

On the Childhood Abuse scale, the mean score for Group 1 (M=59.12, SD =26.66) was significantly higher as compared to Group 3 (M=29.37, SD =22.38), p < .002. The mean score for Group 2 (M=47.75, SD =25.86) was significantly higher as compared to Group 3 (M=29.37, SD =22.38), p < .002. However, there was no significant mean difference between Group 1 (M=59.12, SD =26.66) and Group 2 (M=47.75, SD =25.86), p > .002. No mean scores reached 60 BR points.
On the Eating Dysfunctions scale, the mean score for Group 1 ($M=37.24$, $SD =27.59$) was significantly higher as compared to Group 2 ($M=20.44$, $SD =15.64$), $p < .002$ and Group 3 ($M=12.85$, $SD =9.68$), $p < .002$. However, there was no mean difference between Group 2 ($M=20.44$, $SD =15.64$) and Group 3 ($M=12.85$, $SD =9.68$), $p > .002$. However, no mean scores reached 60 BR points.

The mean score for Group 2 ($M=60.66$, $SD =23.40$) was significantly higher on the Substance-Abuse Proneness scale as compared to Group 3 ($M=33.80$, $SD =22.70$), $p < .002$. The mean score for Group 1 ($M=52.71$, $SD =23.93$) was also significantly higher as compared to Group 3 ($M=33.80$, $SD =22.70$), $p < .002$. There was no significant mean score difference between Group 1 ($M=52.71$, $SD =23.93$) and Group 2 ($M=60.66$, $SD =23.40$), $p > .002$.

On the Delinquent Predisposition scale, the mean score for Group 2 ($M=74.37$, $SD =14.20$) was significantly higher as compared to Group 1 ($M=56.51$, $SD =16.27$), $p < .002$ and Group 3 ($M=63.96$, $SD =14.93$), $p < .002$. The mean score for Group 3 ($M=63.96$, $SD =14.93$) was significantly higher compared to Group 1 ($M=56.51$, $SD =16.27$), $p < .002$.

The mean scores for Groups 2 ($M=73.37$, $SD =14.91$), $p < .002$ and 1 ($M=66.65$, $SD =18.71$), $p < .002$ on the Impulsive Propensity scale, were both significantly higher as compared to Group 3 ($M=48.02$, $SD =20.56$). There was no significant mean difference in scores between Group 1 ($M=66.65$, $SD =18.71$) and Group 2 ($M=73.37$, $SD =14.91$), $p > .002$.

On the Anxious Feelings scale, Group 1 ($M=61.15$, $SD =19.92$) was significantly higher as compared to Group 2 ($M=48.04$, $SD =13.98$), $p < .002$. The mean score for Group 3 ($M=58.55$, $SD =13.10$) was significantly higher as compared to Group 2 ($M=48.04$, $SD =13.98$), $p < .002$. There was no significant mean difference between Group 1 ($M=61.15$, $SD =19.92$) and Group 3 ($M=58.55$, $SD =13.10$), $p > .002$. 

The mean score for Group 1 (\(M=83.51, SD =14.09\)) on the Depressive Affect scale was significantly higher as compared to Group 2 (\(M=65.10, SD =19.04\), \(p < .002\) and Group 3 (\(M=38.59, SD =18.83\), \(p < .002\). The mean score for Group 2 (\(M=65.10, SD =19.04\)) was significantly higher as compared to Group 3 (\(M=38.59, SD =18.83\), \(p < .002\).

On the Suicidal Tendency scale, Group 1 (\(M=49.86, SD =25.13\)) had a mean score significantly higher as compared to Group 2 (\(M=34.16, SD =21.76\), \(p < .002\) and Group 3 (\(M=14.35, SD =9.31\), \(p < .002\). The mean score for Group 2 (\(M=34.16, SD =21.76\)) was significantly higher as compared to Group 3 (\(M=14.35, SD =9.31\), \(p < .002\). However, no mean scores were reached 60 or above BR points.

Summary of MANOVA (Modifying Indices, Expressed Concerns and Clinical Syndromes scale)

In summary, the Detached group had significantly higher scores on the Disclosure, Debasement, Identity Diffusion, Self-Devaluation, Peer Insecurity, and Depressive Affect scales, relative to the other two groups, with the two of these scales (Self-Devaluation and Depressive Affect) reaching clinical presence cut-off BR mean scores. Two of the scales (Self-Devaluation and Peer Insecurity) approached the cut-off for clinical presence.

The Offending Supportive group had significantly higher scores as compared to the other two groups on the Family Discord and Delinquent Predisposition scales with Family Discord reaching clinical presence and Delinquent Predisposition approaching clinical presence. Both the Offending Supportive and the Detached groups were higher as compared to the Typical Teen/Restricted group on the Impulsivity Propensity scale, although only the Offending Supportive group had a mean score approaching clinical presence. Both the Offending Supportive and the Detached groups were higher as compared to the Typical Teen/Restricted group on Substance Abuse Proneness; however, only the Offending Supportive group had a mean score elevated at or above 60 BR points. The Offending
Supportive and Typical Teen/Restricted groups were significantly higher as compared to the Detached group on the Social Insensitivity scale. The Detached and Typical Teen/Restricted groups had significantly higher scores as compared to the Offending Supportive group on the Anxious Feelings scale, with only the Detached group resulting in a mean score elevated at or above 60 BR points. The Detached group had a significantly higher score compared to the other two groups on the Suicidal Tendency scale, however, this did not reach 60 BR points. The Offending Supportive and Detached groups had higher mean scores compared to the Typical Teen/Restricted group; however, no mean scores on this scale reached 60 BR points.

Mean scale scores less than 35 BR points for the Typical Teen/Restricted group on the Eating Dysfunctions, Substance-Abuse Proneness, and Suicidal Tendency scales suggest that the characteristics of these scales could be protective factors for this group. Similarly, for the Offending Supportive group, the Eating Dysfunctions, and Suicidal Tendency scales had mean scores less than 35 BR points which indicates a potential protective factor for this group. The majority of scales showed large effect sizes, except for two subscales which showed moderate to large effect sizes (Sexual Discomfort and Anxious Feelings) and one subscale (Desirability Index) which showed a small/moderate effect size.

Section 3: Frequencies and relationships of Offender, offence and victim characteristics with personality-based profiles

Offender variables

Ethnicity. There was no relationship between profile type and ethnicity, $\chi^2(6, N=293)=9.40, p > .05$. Ethnicity was recoded into Māori and non-Māori in order to investigate any relationships across profile type and ethnicity when categorised into indigenous and non-
indigenous groups. There was no relationship between profile type and ethnicity (Māori and non-Māori), $\chi^2(2, N=293)=1.251, p > .05$.

*Physical Victimisation.* Of the total participants, 42.6% had been victimised physically by a primary caregiver. There was no relationship between profile type and Physical Victimisation, $\chi^2(2, N=298)=1.27, p > .05$.

*Sexual Victimisation.* Of the total participants, 35.6% of participants had been sexually victimised. Despite a higher percentage of individuals in Group 1 (42.3%) and Group 2 (39.7%) who had been sexually victimised as compared to Group 3 (28.1%), this did not reach statistical significance, $\chi^2(2, N=298)=5.55, p=.06$.

*Exposure to Intimate Partner Violence (IPV).* Exposure to Intimate Partner Violence (IPV) in childhood was recorded for 28.5% of the participants. There was no relationship between profile type and Exposure to Intimate Partner Violence (IPV), $\chi^2(2, N=298)=2.42, p > .05$.

*High Family Stress.* High family stress was recorded for 69.1% of the participants. There was no relationship between profile type and High Family Stress, $\chi^2(2, N=298)=1.31, p > .05$.

*Victimisation from Bullying.* Of the total participants, 32.2% had experienced victimisation of intimidation from peers (bullying). Although Group 1 (39.2%) and Group 2 (34.2%) had higher percentages of individuals who experienced victimisation through bullying than Group 3 (25.8%). This was not significant, $\chi^2(2, N=298)=4.72, p > .05$.
Table 12

*Results of Chi-square tests for offender (victimisation) variables across the personality-based profile groups*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Profile Group</th>
<th>(1) Detached</th>
<th>(2) Offending Supportive</th>
<th>(3) Typical Teen/Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Vict</td>
<td></td>
<td>46.4%</td>
<td>43.8%</td>
<td>39.1%</td>
<td>42.6%</td>
</tr>
<tr>
<td>Sexual Vict #</td>
<td></td>
<td>42.3%</td>
<td>39.7%</td>
<td>28.1%</td>
<td>35.6%</td>
</tr>
<tr>
<td>Expos to IPV</td>
<td></td>
<td>22.7%</td>
<td>31.5%</td>
<td>31.3%</td>
<td>28.5%</td>
</tr>
<tr>
<td>High Fam St</td>
<td></td>
<td>72.2%</td>
<td>71.2%</td>
<td>65.6%</td>
<td>69.1%</td>
</tr>
<tr>
<td>Bullying Vict #</td>
<td></td>
<td>39.2%</td>
<td>34.2%</td>
<td>25.8%</td>
<td>32.2%</td>
</tr>
</tbody>
</table>

*Notes.* The symbol * denotes statistical significance at the .05 level.
The symbol # denotes approaching significance at the .05 level.

*Perpetration of Bullying.* Approximately one-third (33.6%) of participants had perpetrated acts of intimidation against peers or younger individuals. Although Group 1 (40.2%) had a higher percentage of individuals who had perpetrated bullying against peers as compared to Group 2 (26.0%) and Group 3 (32.8%), this was not statistically significant, $\chi^2(2, N=298)=3.81$, $p > .05$.

*Use of Pornography.* Nearly half (49%) of the participants had used pornography. There was no relationship between profile type and Use of Pornography, $\chi^2(2, N=298)=3.31$, $p > .05$.

*Living at Home.* Just over half (52.3%) of participants were living at home at the time of assessment. There was no relationship between profile type and Living at Home, $\chi^2(2, N=298)=4.49$, $p > .05$. 
Parental Stability. The majority of participants (76.8%) of participants came from parents who were living apart. There was no relationship between profile type and Parental Stability, $\chi^2(2, N=298)=1.20, p > .05$.

Stable Relationship with Mother. Less than one-third of participants (27.5%) were recorded as having a stable maternal relationship. There was no relationship between profile type and Stable Relationship with Mother, $\chi^2(2, N=298)=.92, p > .05$.

Stable Relationship with Father. Only 14.1% of participants were recorded as having a stable paternal relationship. Although Group 1 (7.2%) had a lower proportion of individuals who were reported to have experienced a stable paternal relationship as compared to Group 2 (16.1%) and Group 3 (18%), this did not reach statistical significance, $\chi^2(2, N=298)= 5.71, p=.06$.

Consensual Sexual Experience with Peers. Of the total sample, 18.5% of participants had experienced consensual sexual relationships with peers. The groups were statistically different with regard to nondeviant sexual experience with peers. Group 2 (27.4%) had a higher proportion of individuals who were recorded as having nondeviant sexual experience than Group 1 (12.4%) or Group 3 (18%), $\chi^2(2, N=298)= 6.28, p < .05$.

General Offending. More than two thirds of the sample (67.8%) had engaged in non-sexual offending behaviours. Although Group 2 (75.3%) had a slightly higher proportion of individuals who had committed non-sexual offences as compared to Group 1 (69.1%) or Group 3 (62.5%), this was not statistically significant, $\chi^2(2, N=298 )= 3.62, p > .05$.

Criminal Versatility (CV). Of the total sample, 22.5% had committed one other type of offending, 31.2% had committed two or three other types of offences and 13.8% had committed four or more other types of offences. Although Group 2 (16.4%) had a higher percentage of individuals who had committed four or more other offences as compared to
Group 1 (13.4%) and Group 3 (12.5%) this was not overall statistically significant, $\chi^2(6, N=298)= 4.21, p > .05$.

**Early Offending Onset.** Just over one-third (36.2%) of participants began offending at aged 12 or younger. There was no relationship between profile type and Early Onset Offending, $\chi^2(2, N=298)=.57, p > .05$.

Table 13

Results of Chi-square tests for offender (offending) variables across the personality-based profile groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Profile Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Bullying Perp</td>
<td>40.2%</td>
<td>26.0%</td>
</tr>
<tr>
<td>Gen Offending</td>
<td>69.1%</td>
<td>75.3%</td>
</tr>
<tr>
<td>CV1</td>
<td>21.6%</td>
<td>21.9%</td>
</tr>
<tr>
<td>CV 2-4</td>
<td>34%</td>
<td>35.6%</td>
</tr>
<tr>
<td>CV 4 or &gt;</td>
<td>13.4%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Earl Offending</td>
<td>39.2%</td>
<td>35.6%</td>
</tr>
</tbody>
</table>

**Notes.** The symbol * denotes statistical significance at the .05 level. The symbol # denotes approaching significance at the .05 level.

**Still at School.** Approximately two thirds (61.4%) of participants were attending school at the time of assessment. Although there was a higher percentage of individuals in Group 3 (65.6%) and 1 (62.9%) as compared to Group 2 (52.1%) who were still attending school, there was no relationship between profile type and whether they still attended school, $\chi^2(2, N=298)=3.75, p > .05$.

**Behavioural Problems at School.** Just over half (54%) of participants had experienced behavioural problems at school. There was no relationship between profile type and behavioural problems at school, $\chi^2(2, N=298)=.98, p > .05$. 
**Academic/Learning Problems at School.** Just over half (54.7%) of participants had experienced academic or learning problems at school. There was a statistical relationship between profile type and academic/learning problems at school, $\chi^2(2, N=298)=8.81, p < .05$. Sixty-six per cent of the Group 1 reported academic or learning problems at school as compared to 54.8% of Group 2 and 46.1% of Group 3.

**Instability of Environment.** A minority (20.5%) of participants had experienced instability of school and/or home environment. There was no relationship between profile type and the amount of schools or living places that they had experienced in childhood, $\chi^2(2, N=298)=1.72, p > .05$.

**Level of Denial.** Of the total participants, 17.1% were recorded as fully acknowledging all aspects of all sexual offences at the time of assessment, 18.8% acknowledged most aspects of offending and denied a few aspects, 16.1% acknowledged some aspects of offending and denied other aspects, 12.4% denied most aspects of offending and acknowledged a few aspects, 14.8% minimised their sexual offending and 12.1% denied their sexual offending. A small minority (8.7%) had missing data. Although a higher percentage of individuals in Group 3 (16.0%) totally denied sexual offending as compared to Group 1 (8.1%) and Group 2 (14.9%), there was no statistical significant relationship between profile groups and Level of Denial, $\chi^2(10, N=298)= 5.04, p > .05$.

**Family History (FH) of Sexual Offending.** Nearly one-third (30.9%) of participants had a family history of sexual offending. Although there were higher proportions of individuals in Group 1 (36.1%) and Group 2 (35.6%) as compared to Group 3 (24.2%), there was no statistical relationship between profile groups and family history of sexual offending, $\chi^2(2, N=298 )=4.66 , p > .05$. 
Family History (FH) of Non-sexual Offending. Just over one-third (34.2%) of participants had a family history of nonsexual offending. There was no relationship between profile type and Family History of Nonsexual Offending, $\chi^2(2, N=298)=.39, p > .05$.

Family History (FH) of Physical Victimisation. Approximately one-third (33.2%) of participants had a family history of physical victimisation. There was no relationship between profile type and Family History of Physical Victimisation, $\chi^2(2, N=298)=.808, p > .05$.

Family History (FH) of Substance Abuse. A fair percentage (41.3%) of participants had a family history of substance abuse. Although Group 3 (45.3%) had a higher percentage of individuals with a family history of substance abuse problems than Group 1 (38.1%) and Group 2 (38.4%), there was no relationship between profile type and Family History of Substance Abuse, $\chi^2(2, N=298)=1.51, p > .05$.

Family History (FH) of Physical or Psychological Illness. Just over one quarter (26.5%) of participants had a family history of psychological or physical illness. There was no relationship between profile type and Family history of physical or psychological illness, $\chi^2(2, N=298)=.22, p > .05$.

Family History (FH) of Economic Hardship. A small minority (9.7%) of participants had a family environment of financial hardship or poverty. There was no relationship between profile type and Family history of economic hardship, $\chi^2(2, N=298)=1.13, p > .05$. 
Table 14

Results of Chi-square tests for offender variables across the personality-based profile groups on family history variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Profile Group</th>
<th>(1) Detached</th>
<th>(2) Offending Supportive</th>
<th>(3) Typical Teen/Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH Sex Off</td>
<td>36.1%</td>
<td>35.6%</td>
<td>24.2%</td>
<td>30.9%</td>
<td></td>
</tr>
<tr>
<td>FH N/Sex Off</td>
<td>32.0%</td>
<td>34.2%</td>
<td>35.9%</td>
<td>34.2%</td>
<td></td>
</tr>
<tr>
<td>FH Ph Vict</td>
<td>32.0%</td>
<td>30.1%</td>
<td>35.9%</td>
<td>33.2%</td>
<td></td>
</tr>
<tr>
<td>FH Sub AB</td>
<td>38.1%</td>
<td>38.4%</td>
<td>45.3%</td>
<td>41.3%</td>
<td></td>
</tr>
<tr>
<td>FH Psy/Phys</td>
<td>27.8%</td>
<td>24.7%</td>
<td>26.6%</td>
<td>26.5%</td>
<td></td>
</tr>
<tr>
<td>FH Poverty</td>
<td>10.3%</td>
<td>12.3%</td>
<td>7.8%</td>
<td>9.7%</td>
<td></td>
</tr>
</tbody>
</table>

Notes. The symbol * denotes statistical significance at the .05 level. The symbol # denotes approaching significance at the .05 level.

Involvement in Hobby or Sports. Approximately one-third (66.4%) of participants were involved in a hobby or sport at the time of assessment. Although Group 3 (70.3%) had a higher percentage of individuals who were involved in a sport or hobby at the time of assessment than Group 1 (67.0%) or Group 2 (58.9%), there was no relationship between profile type and Involvement in Hobby or Sports, $\chi^2(2, N=298)=2.73, p > .05$.

Types of Friends. Of the total sample, 25.0% were recorded as associating with mainly antisocial peers, 23.8% had mostly pro-social peers, 18.4% associated with mixed types of peers and 32.8% had limited or lacked friendships with peers. Group 1 had a higher percentage of limited or no friends (43%) as compared to Group 2 (32.6%) and Group 3 (26.3%). Group 2 had a higher percentage of mainly antisocial friends (30.5%) as compared to Group 1 (20.3%) and Group 3 (25.4%). However, the there was no statistical relationship between profile type and Types of Friends, $\chi^2(2, N=298)=8.06, p > .05$. 
Substance Abuse. Nearly one-third (30.2%) of the total participants had a history of substance use. Although Group 2 (37%) had a higher percentage of individuals with substance use problems as compared to Group 1 (26.8%) and Group 3 (28.9%), there was no statistical relationship between profile type and Substance Abuse, $\chi^2(2, N=298)=2.23, p > .05$.

History of Self-harm/Suicide. Of the total sample, 11.1% had attempted self-harm or suicide at least once prior to the assessment and 18.5% of participants had experienced suicidal ideation but had not engaged in acting out attempts to complete a suicide. The groups were statistically different with regard to History of Self-harm/Suicide, $\chi^2(2, N=298)=38.75, p < .001$. A higher percentage of Group 1 (14.4%) and Group 2 (16.4%) had engaged in self-harm or suicide attempts than Group 3 (5.5%). Furthermore, 34% of Group 1 had engaged in suicidal ideation as compared to 17.8% in Group 2 and an even lower percentage in Group 3 (7%).
Table 15

Results of Chi-square tests for offender variables across the personality-based profile groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Profile Group</th>
<th>(1) Detached</th>
<th>(2) Offending Supportive</th>
<th>(3) Typical Teen/Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Māori</td>
<td></td>
<td>35.1%</td>
<td>33.3%</td>
<td>28.3%</td>
<td>31.7%</td>
</tr>
<tr>
<td>NonMāori</td>
<td></td>
<td>64.9%</td>
<td>66.7%</td>
<td>71.7%</td>
<td>68.3%</td>
</tr>
<tr>
<td>Use of Porn</td>
<td></td>
<td>42.3%</td>
<td>56.2%</td>
<td>50.0%</td>
<td>49%</td>
</tr>
<tr>
<td>Living at Home</td>
<td></td>
<td>58.8%</td>
<td>42.5%</td>
<td>53.1%</td>
<td>52.3%</td>
</tr>
<tr>
<td>Parental Stab</td>
<td></td>
<td>20.6%</td>
<td>20.5%</td>
<td>26.0%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Stable Rel M</td>
<td></td>
<td>30.9%</td>
<td>24.7%</td>
<td>26.5%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Stable Rel F #</td>
<td></td>
<td>7.2%</td>
<td>16.4%</td>
<td>18%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Sex Exp *</td>
<td></td>
<td>12.4%</td>
<td>27.4%</td>
<td>18.4%</td>
<td>18.5%</td>
</tr>
<tr>
<td>School</td>
<td></td>
<td>62.9%</td>
<td>52.1%</td>
<td>65.6%</td>
<td>61.4%</td>
</tr>
<tr>
<td>Beh Pron Sc</td>
<td></td>
<td>51.5%</td>
<td>58.9%</td>
<td>53.1%</td>
<td>54.0%</td>
</tr>
<tr>
<td>A/L Prob Sc *</td>
<td></td>
<td>66.0%</td>
<td>54.8%</td>
<td>46.1%</td>
<td>54.7%</td>
</tr>
<tr>
<td>Instab environ</td>
<td></td>
<td>21.6%</td>
<td>24.7%</td>
<td>17.2%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Level of Denial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully disclosed</td>
<td></td>
<td>19.8%</td>
<td>19.4%</td>
<td>17.6%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Most aspects</td>
<td></td>
<td>18.6%</td>
<td>22.4%</td>
<td>21.0%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Some Aspects</td>
<td></td>
<td>20.9%</td>
<td>17.9%</td>
<td>15.1%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Denied Most</td>
<td></td>
<td>14.0%</td>
<td>10.4%</td>
<td>15.1%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Minimised</td>
<td></td>
<td>18.6%</td>
<td>14.9%</td>
<td>15.1%</td>
<td>16.2%</td>
</tr>
<tr>
<td>Denied all</td>
<td></td>
<td>8.1%</td>
<td>14.9%</td>
<td>16.0%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Sports/Hobbies</td>
<td></td>
<td>67.0%</td>
<td>58.9%</td>
<td>70.3%</td>
<td>66.4%</td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antisocial</td>
<td></td>
<td>20.3%</td>
<td>30.5%</td>
<td>25.4%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Prosocial</td>
<td></td>
<td>20.3%</td>
<td>18.6%</td>
<td>28.8%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Mixed</td>
<td></td>
<td>16.5%</td>
<td>18.6%</td>
<td>19.5%</td>
<td>18.4%</td>
</tr>
<tr>
<td>No/Limited</td>
<td></td>
<td>43.0%</td>
<td>32.2%</td>
<td>26.3%</td>
<td>32.8%</td>
</tr>
<tr>
<td>Sub Abuse</td>
<td></td>
<td>26.8%</td>
<td>37.0%</td>
<td>28.9%</td>
<td>30.2%</td>
</tr>
<tr>
<td>Suicide/S-H</td>
<td></td>
<td>14.4%</td>
<td>16.4%</td>
<td>5.5%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Ideation *</td>
<td></td>
<td>34.0%</td>
<td>17.8%</td>
<td>7.0%</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

Notes. The symbol * denotes statistical significance at the .05 level.
The symbol # denotes approaching significance at the .05 level.
**Offence variables**

*Anal Penetration.* Of the total sample, 20.8% had engaged in anal penetration. Group 2 (12.3%) had a lower percentage of individuals who had attempted or completed anal penetration as compared to Group 1 (25.8%) or Group 3 (21.9%); however, this did not reach statistical significance, \( \chi^2(2, N=298) = 4.73, p = .09 \).

*Vaginal Penetration.* Just over one-third (35.2%) of the total sample had engaged in vaginal penetration. Although Group 1 (40.2%) had a higher percentage of individuals as compared to Group 2 (30.1%) or Group 3 (34.4%) who had attempted or penetrated at least one victim vaginally, there was no statistical relationship between profile type and Vaginal penetration, \( \chi^2(2, N=298) = 1.92, p > .05 \).

*Exclusively Hands-off.* A small minority (7%) had engaged in hands-off offences exclusively. Although Group 2 (12.3%) had a higher percentage of individuals who had exclusively committed hands-off sexual offences as compared to Group 1 (5.2%) or Group 3 (5.5%), there was no statistical relationship between profile type and Only Hands-off, \( \chi^2(2, N=298) = 4.12, p > .05 \).

*Exclusively Genital Touching or Oral.* Over one-third (39.4%) of the total sample, had engaged in oral or sexual touching. Although Group 2 (45.8%) had a higher percentage of individuals who had committed exclusively sexual touching or oral sexual offences as compared to Group 1 (37.1%) or Group 3 (37.5%), there was no statistical relationship between profile type and Only Genital touching or oral, \( \chi^2(2, N=298) = 1.65, p > .05 \).

*Use of Force/Threats/Weapons.* Of the total sample, 29.9% had used force, weapons, or threats of either, in their sexual offending. There was no relationship between profile type and Use of Force/Threats/ Weapons, \( \chi^2(2, N=298) = 1.85, p > .05 \).
Ever Bestiality. Only 3% of the total sample had engaged in bestiality. Although this test did not meet the necessary assumption for expected cell count (that is, three cells (50%) had counts less than five), an inspection of the observed counts across the groups showed that the groups had similar numbers of individuals across Group 1 (observed count=4), Group 2 (observed count=2) and Group 3 (observed count=3).

Table 16

Results of Chi-square tests for offence variables across the personality-based profile groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1) Detached</th>
<th>(2) Offending Supportive</th>
<th>(3) Typical Teen/Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anal Pen #</td>
<td>25.8%</td>
<td>12.3%</td>
<td>21.9%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Vag Pen</td>
<td>40.2%</td>
<td>30.1%</td>
<td>34.4%</td>
<td>35.2%</td>
</tr>
<tr>
<td>Hands-off</td>
<td>5.2%</td>
<td>12.3%</td>
<td>5.5%</td>
<td>7%</td>
</tr>
<tr>
<td>Oral/Touch</td>
<td>37.1%</td>
<td>45.8%</td>
<td>37.5%</td>
<td>39.4%</td>
</tr>
<tr>
<td>Bestiality</td>
<td>4.1%</td>
<td>2.8%</td>
<td>2.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Use of Force</td>
<td>35.1%</td>
<td>27.4%</td>
<td>27.3%</td>
<td>29.9%</td>
</tr>
</tbody>
</table>

Notes. The symbol * denotes statistical significance at the .05 level. The symbol # denotes approaching significance at the .05 level.

Victim variables

Victim Age. Just over one-third (34.2%) of participants had offended against at least two child victims. Although Group 1 (39.2%) had a higher proportion of individuals who had offended against at least two child victims than Group 3 (35.2%) or Group 2 (26%), there was no statistical relationship between profile type and having offended against at least two child victims, $\chi^2(2, N=298)=3.28, p > .05$.

Victim Gender. Of the total sample, 17.4% of participants had offended against at least two male victims. Although the proportion of Group 2 (8.2%) who had offended against at
least two males was much lower as compared to Group 1 (20.6%) and Group 3 (20.3%) the differences did not reach statistical significance, \( \chi^2(2, N=298)=5.72, p=.06 \).

_Victim Relationship._ Of the total sample, 9.7% of participants had offended against at least two stranger victims. Both the Group 1 and Group 2 had a higher proportion of individuals who had sexually offended against at least two strangers (13.4% and 11.0% respectively) as compared to Group 3 (6.3%) however, this was not statistically significant, \( \chi^2(2, N=298)=3.40, p > .05 \).
Table 17

Results of Chi-square tests for victim variables across the personality-based profile groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) Detached (2) Offending</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supportive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) Typical Teen/Restricted</td>
<td></td>
</tr>
<tr>
<td>Ever 2 Child</td>
<td>39.2%</td>
<td>34.2%</td>
</tr>
<tr>
<td>Ever 2 Male #</td>
<td>20.6%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Ever 2 Stranger</td>
<td>13.4%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Notes. The symbol * denotes statistical significance at the .05 level. The symbol # denotes approaching significance at the .05 level.

Summaries of results

Cluster Analysis (CA). A personality-based three cluster solution, using Ward’s hierarchical method and squared Euclidean distances, was used to classify a community-based sample of 298 male adolescent sex offenders. The three groups were named Detached (Group 1; n=97), Offending Supportive (Group 2; n=73) and Typical Teen/Restricted (Group 3; n=128). The cluster solution was further validated by a nonhierarchical clustering method (k-means) and significant statistical differences across groups that were found through conducting a MANOVA on the Personality Patterns scales.

Summary of differences across personality based groups on Personality Patterns scales

Eleven of the 12 Personality Patterns scales showed large effect sizes and one showed a moderate to large effect. The Detached group was significantly higher as compared to the other two profile groups on the Introversive, Inhibited, and Doleful Personality Patterns scales with large effect sizes. The Offending Supportive group was higher on the Unruly scale as compared to the other two groups, and both the Detached and Offending Supportive groups...
were higher on the Oppositional and Borderline Tendency scales as compared to the Typical Teen/Restricted group.

Summary of differences across personality based groups on Modifying Indices, Expressed Concerns, and Clinical Syndromes scale

A subsequent MANOVA was conducted to explore differences across the groups on response styles, Expressed Concerns, and Clinical Syndromes scales. A main effect was found, and further post hoc tests demonstrated significant differences across the groups on all 18 scales. Fifteen of these showed large effect sizes, two scales a moderate to large effect, and one scale a small to moderate effect. Noteworthy results from these tests included the following. The Detached group was more self-revealing, self-devaluing, and self-debasing than the other two groups, and had a higher level of current concern regarding their identity and peer relationships. The Detached group self-reported more depressive symptoms than the other two groups. Although the actual scale elevations for a measure of suicidal ideation were not above the cut-off line for any of the groups, it is worth noting that the Detached group had a score significantly higher than the other two groups. Along with the Offending Supportive group, the Detached group were more worried about family issues than the Typical Teen/Restricted group. The Detached and Offending Supportive groups both had more substance abuse problems and impulsivity than the Typical Teen/Restricted group. The Offending Supportive group showed a tendency for antisocial behaviours more than the other two groups and was the least anxious of the three groups. The Typical Teen/Restricted group had no scale elevations which were elevated at, or above, the recommended cut-off for clinical concern. These results indicate support for personality-based classification of adolescent male sex offenders that can be useful for furthering our understandings of the aetiology and treatment of these offenders.
Summary of relationships of offender, offence, and victim characteristics with personality-based profile groups

Of several offender characteristics that were investigated, only nondeviant sexual experience, academic/learning difficulties, and suicidal and self-harm attempts/ideation were statistically different across the groups. A stable paternal relationship and previous sexual victimisation approached significance, which suggests a potential relational pattern across the groups.

No significant relationships were found with profile groups on offence characteristics. Anal penetration (or attempt to) was the only offence-related variable to approach significance with the Offending Supportive group having a lower percentage of individuals who had engaged (or attempted to) in anal penetration.

No significant relationships were found across the groups with victim characteristics. The Offending Supportive group had a lower percentage of individuals who had ever had two male victims as compared to the other two groups and this approached statistical significance. The limited number of offender, offence, and victim characteristics that were statistically different across the groups suggests that these factors may not be related to personality styles of adolescent male sex offenders, or that the relationships are difficult to tease apart.
CHAPTER 4
DISCUSSION

The primary aim of this study was to explore the classification of a community sample of male adolescent sex offenders, based on personality characteristics. This was deemed to add to the literature on adolescent sex offending by expanding on previous research. A theoretically meaningful classification of three personality-based profile groups was identified. These groups were very similar to that in previous research (Oxnam & Vess, 2006, 2008; Richardson et al., 2004; Smith et al., 1987; Worling, 2001). Further analyses resulted in significant differences among three personality-based groups regarding response styles, adolescent concerns, and clinical problems, as measured by the MACI. The current research provided support for the validation of the three-cluster classification.

A second aim of this study was to investigate the relationships between personality-based profiles and offender, offence, and victim characteristics using data from a retrospective review of file information. The selection of these variables was guided by previous research (Oxnam, 2005; Oxnam & Vess, 2006, Richardson et al., 2004; Smith et al., 1987; Worling, 2001) and expert opinion (J. Worling, personal communication, June 29, 2007; P. Oxnam, personal communication, August 14, 2007). As discussed in more detail in the following section of this chapter, the overall rates of offender, offence, and victim characteristics of this sample of adolescent male sex offenders were similar to that of previous research. However, there were few statistically significant relationships found between the offender, offence, or victim characteristics and the identified personality-based profile groups. Of all the variables that were investigated, only nondeviant sexual experience, academic or learning problems, and suicidal ideation or behaviours were statistically significant across the personality-based profile groups. Variables that approached statistical significance across the personality-based profile
groups were for previous sexual victimisation, victimisation from bullying, having a stable relationship with the biological father, anal penetration during the sexual offence, and having sexually assaulted at least two males. No relationships with the personality-based profile groups were found for any of the variables regarding family background, nonsexual offending, physical victimisation, substance abuse, peer relationships, social isolation, force used during the offence, vaginal penetration, exclusively non-contact offences, or having child or unknown victims.

The results of the current study and previous research is discussed. This is presented in six sections, beginning with an outline of offender, offence, and victim characteristics of this study as compared to other studies. Section 2 describes the interpretations of the personality-based profiles found in this study, and compares these findings with previous relevant studies. Section 3 outlines the strengths of this study. Section 4 notes the limitations of the current study, and Section 5 provides recommendations for future research. Finally, Section 6 provides an overall summary and conclusion.

Section 1: Offender, offence, and victim characteristics of the total sample

Offender characteristics. The sample for the current study was consistent with other personality-based studies of adolescent sex offenders with regards to demographic information (see Table 15 for comparisons with other studies).
Table 18

**Offender characteristics of adolescent sex offenders in previous studies and the current study**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>n</th>
<th>Mean age (range)</th>
<th>Ethnicity</th>
<th>Physical Victimisation</th>
<th>Sexual Victimisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith et al., (1987)</td>
<td>262</td>
<td></td>
<td>Not available</td>
<td>39.6% Physical and/or Sexual Victimisation</td>
<td></td>
</tr>
<tr>
<td>Worling (2001)</td>
<td>97</td>
<td>15.6 (12-19)</td>
<td>Not available</td>
<td>39.2%</td>
<td>42.3%</td>
</tr>
<tr>
<td>Richardson et al., (2004)</td>
<td>112</td>
<td>15.4 (13-18)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxnam &amp; Vess (2006)</td>
<td>25</td>
<td>15.4 (13-17)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxnam &amp; Vess (2008)</td>
<td>82</td>
<td>15.2 (13-19)</td>
<td>NZ European: 61% Maori: 20% Pf: 12% Other: 7%</td>
<td>48%</td>
<td>32%</td>
</tr>
<tr>
<td>Higgins (2008)</td>
<td>473</td>
<td>(13-19)</td>
<td>Caucasian: 54.1% African/American: 43%, Hispanic: 7% Biracial: 1.8% .5%: Other</td>
<td>37.5%</td>
<td>31.4%</td>
</tr>
<tr>
<td>Current study</td>
<td>298</td>
<td>14.74 (13-18)</td>
<td>NZ European: 56.4% Māori: 31.2% Pf: 7.0% Other: 3% Missing:1.7%</td>
<td>42.6%</td>
<td>35.6%</td>
</tr>
</tbody>
</table>

The current sample was slightly younger than samples used in other studies, and had a higher percentage of Māori adolescents as compared to the New Zealand study of a similar nature (Oxnam & Vess, 2008). Given that the southern and northern areas of the North Island of New Zealand have proportionately similar rates of adolescent Māori males, 52% and 48%, respectively; (Statistics New Zealand, 2006), this difference may be a reflection of the current study’s larger sample size capturing a more representative sample.

The current study had high rates of previous physical and sexual victimisation and historical family-related problems. Sexual victimisation rates were consistent with the lower
end of previous reported ranges and very similar to those found in previous research (Becker & Hunter, 1997; Johnson & Shrier, 1985; Oxnam, 2005; Ryan, Myoshi & Metzner, 1996; Worling, 1995, 2001). Previous physical victimisation by elder family members was experienced by the adolescents in the current sample at a rate within the middle range of previously reported rates, and very similar to rates reported by some researchers (Almond, Canter, & Salfati, 2006; Becker & Hunter; Johnson & Shrier; Newman et al., 2009; Righthand & Welch, 2005).

Of note, nearly half of the adolescents had a family history of substance abuse problems which is consistent with previous research that has reported high rates of substance abuse in the families of adolescent sex offenders (Awad & Saunders, 1991; Hsu & Starsynski, 1990; Kahn & Chambers, 1991).

Nearly one-third had another family member who had committed a sexual offence. This is consistent, but not as high as Gray et al. (1997) who found that over half their adolescents had another family member who had performed a sexually abusive act. One-third of the current sample had another member of the family who had committed nonsexual offences which is consistent with previous researchers who have reported high rates of criminal family environments in adolescent sex offenders (Awad & Saunders, 1991; Fagan & Wexler, 1998; Hsu & Starsynski, 1990). Over two-thirds of the sample came from highly stressful family environments which is consistent with the literature (Barbaree & Langton, 2006). Only approximately one quarter had a stable maternal relationship. Less than one-fifth had stable relationships with their biological fathers, concurring with the literature suggesting adolescent sex offenders have problematic parental relationships (Awad & Saunders, 1991; Barbaree & Langton, 2006; Morenz & Becker, 1995).
About one-third of the adolescents were victims of bullying from peers and/or had engaged in perpetrating bullying behaviours. This is at the lower end of reported rates in the literature of general adolescent offenders (Ireland, 2002). The current sample had similarly high rates of behaviour and/or academic/learning problems at school as previously reported (Higgins, 2008). Nearly one-third of the adolescents had substance abuse problems, which supports the high rates found in the literature on adolescent sex offenders (Granello & Hanna, 2003; Hsu & Starzynski, 1990; Kavoussi et al., 1988; Lakey, 1992; Lightfoot & Barbaree, 1993; Newman et al., 2009; Righthand & Welch, 2005; Underwood et al., 2008; Van Ness, 1984). The high rates of suicide/self-harm ideation found in the current study have been noted in previous research in adolescent general offenders (Ireland; Viljoen et al., 2005).

Nearly one-third of the adolescents were socially isolated with either limited or no peer friendships which again concurs with the high rates found in the literature and appears to be a differentiating factor compared to non-sex offending adolescents (Blaske et al., 1989; Milloy, 1994; Seto & Lalumière, 2010; Varker, et al., 2008). Social isolation is also a factor predictive of sexual recidivism (Worling & Långström, 2006).

Approximately one-fifth of the participants had mainly antisocial peer friendships, which supports the “general explanation” for some adolescent sex offenders (Seto & Lalumière, 2010, p. 529), whereby antisocial peer influence may be contributing to, at least some, adolescent sex offending. The very high rate of nonsexual offending that was found in the current study is supportive of previous literature that has indicated high rates of engagement in other types of offending (Awad & Saunders, 1991; Caldwell, 2007; Fehrenbach, et al., 1986; Henggeler, et al., 2009; Lambie & Seymour, 2006; Seto & Lalumière, 2010). This finding again supports the “general explanation” (Seto & Lalumière, 2010, p. 529).
**Offence characteristics.** Contact sexual offences were the most common types of sexual offences in the current study which is consistent with previous literature (Oxnam, 2008; Righthand & Welch, 2005). Of note was the finding that approximately one-third of the current sample had engaged in, or attempted, vaginal penetration, and one-fifth had engaged in, or attempted, anal penetration. This is slightly higher than a comparable New Zealand study (Oxnam, 2005). Less than one-third of the sample had used force, weapons, or threats of either, in their sexual offending, which is lower than was found in a previous study (Oxnam, 2005). Sexual contact with nonhuman animals was rare, with only three percent of the sample engaging in this type of sexual offence. Bestiality is not typically recorded in previous research; thus, it is difficult to say how accurate this rate is in the adolescent sex offending population.

The type of offence was not significantly related to personality-based profiles, and this could not be wholly accounted for by methodological problems. Other research has indicated similar nonsignificant results regarding offence type and personality-based profiles (Higgins, 2008; Oxnam & Vess, 2008; Richardson et al., 2004; Worling, 2001). It may be that an adolescent’s mode of sex offending is fluid in nature, given their developmental stage.

** Victim characteristics.** Just over one-third of the sample had sexually offended against at least two children. Under one-fifth had sexually offended against at least two males. A minority of the sample had sexually offended against at least two victims unknown to the offender at the time of the offence. It is difficult to compare the results with previous research, given that the current researcher measured this factor in a more conservative way (i.e., recording the presence of at least two child, male, or stranger victims) than other studies who required only one victim with the characteristic (e.g., Oxnam, 2005; Oxnam & Vess, 2008; Worling, 2001). However, the pattern of results in the current study, with relatively low rates
for male and unknown victims, is consistent with previous research that has reported that the
majority of victims are female children known to the offender (Davis & Leitenberg, 1987;
Deisher, et al., 1982; Hunter & Figueredo, 1999; Newman et al., 2009; Oxnam, 2005;
Wasserman & Kappel, 1985; Wieckowski, et al., 1998; Underwood et al., 2008).

Although the results of tests for exploring victim characteristics showed a potential
pattern for adolescents with an offending supportive personality style to select nonmale
victims, these relationships did not reach statistical significance (see Section 2 in this chapter
for further details). This is consistent with previous personality-based studies which have
found few consistent significant relationships for victim variables (e.g., Higgins, 2008; Oxnam
& Vess, 2008; Richardson et al., 2004; Smith et al., 1987; Worling, 2001). Although
methodological problems raised the current researcher’s concerns about the reliability and
validity of the data recorded for some of the offender variables (as discussed in Section 4 of
this chapter), the measurement and collection of the victim characteristics was reliable and
clear. Given these factors, coupled with the large sample in the current study, if there was a
well-established pattern of victim selection, it was likely to have been detected. This is
consistent with the theory that victim selection may be more fluid for adolescent sex offenders
than for adult sex offenders (Worling, 2001).

Section 2: Personality-based profile interpretations

A meaningful set of clusters, within the predicted range of between two and four, was
established through a variety of statistical procedures. The final cluster solution demonstrated
the necessary within-group similarities and between group differences. The three cluster
groups were named Detached, Offending Supportive, and Typical Teen/Restricted.
Interpretation of these profiles was guided by the literature written by the original developers
of the MACI (Millon, 1993) and by others who have a sound knowledge of the MACI and its

Detached (Group 1)

The Detached group’s mean scores suggested a moderate disclosing response style
which provides enough information to be useful for clinical purposes (McCann, 1999). Of
note was that the Detached group’s mean score was significantly higher than both of the two
other groups; therefore, it is likely that the Detached group was somewhat more self-revealing
than both of the other groups on their MACI test scores (Millon, 1993). These adolescents’
responses were unlikely to be motivated by positive impression management; however, their
significantly higher scores on the Debasement Index indicates that their responses may be
motivated by impressing with more troubled lives than in reality or, alternatively, these
adolescents may have a number of difficult aspects to their lives and are open about them
(McCann, 1999).

Of the MACI Personality Pattern scales, the Detached group had the highest elevation
on the Inhibited scale which was the only Personality Pattern scale that reached the
recommended cut-off for the likelihood of these personality characteristics to be present. The
Detached group’s Inhibited mean score was significantly higher than the other groups. Thus,
the Inhibited scale can be viewed as an anchor from which other elevated Personality Pattern
scales can be based around (Millon, 1993). Personality Pattern scale elevations which also
contributed towards the Detached group’s personality profile were Introversive, Oppositional,
Self-Demeaning, and Doleful. Some characteristics of Unruly and Borderline Tendency may
also be evident. The Expressed Concerns and Clinical Syndromes scale elevations that
contributed to the Detached group’s personality-based profile were Self-Devaluation, Peer
Insecurity, Identity Diffusion, Family Discord, and Childhood Abuse.
From the combined Modifying Indices, Personality Patterns, Expressed Concerns, and Clinical Syndromes scale profile, it appears that the major personality characteristics of the Detached group were isolation from others and chronic psychological helplessness and hopelessness. Given their significantly higher scores on Peer Insecurity and Self-Devaluation relative to the other two groups, coupled with higher scores on anxiety as compared to the Offending Supportive group, their detached style of social isolation and interpersonal interaction difficulties is likely to be due to low self-esteem and a fear of anticipated rejection and subsequent psychological pain (McCann, 1999; Millon, 1993).

These adolescents are likely to have great difficulty experiencing pleasure and may feel a deep sense of hopelessness and low self-worth (McCann, 1999; Millon, 1993). They are likely to believe that pleasure is not available to them, and may be self-defeating in opportunities that may offer them this prospect (Millon, 1993). Distrust of others is common (McCann, 1999). They are likely to lead isolated lifestyles and may feel very lonely. Shyness, gloominess, dejection, or discomfort may contribute to their lonely existence. Due to unsuccessful attempts to develop peer relationships, these adolescents typically give up on trying. They also may alternate between attending to their own needs and to the expectations of others, thus, acting out in passive-aggressive, unpredictable ways. Fluctuations between angry outbursts and rigid stubbornness may be observed by others. During these resentful and impulsive outbursts, they may hold antisocial perceptions and behave in antisocial ways that ignore the social norms and the rights and well-being of others. Subsequent to any of these behaviours, they are likely to experience a deep sense of guilt and deserving of their suffering (Millon). Of the three personality profiles, these adolescents are most likely to experience instability of self, relationships, and emotional regulation (McCann, 1999).
This is consistent with Seto and Lalumière (2010) findings that anxiety and low self-esteem is higher for adolescent sex offenders as compared to adolescent general offenders. That is, the Detached group is consistent with the “special explanation” (Seto & Lalumiere, p. 529) whereby their pathway into, and maintenance of, sexual offending involves factors that are more specific to sex offending than general offending (e.g., low self-esteem, peer-related anxiety, and social isolation). Previous literature that has indicated high rates of social isolation, low self-esteem, anxiety, and depression in adolescent sex offenders (Awad & Saunders, 1989; Becker, et al., 1991 Righthand & Welch, 2005; Underwood et al., 2008) is likely to be capturing the personality styles that are most characteristic of the Detached group.

The changeover from childhood to adulthood is likely to be confusing and upsetting for these adolescents (Millon, 1993). These adolescents may perceive themselves as falling short of their ideal self. Self-destructive behaviours are typical of this group (McCann, 1999), which is consistent with Viljoen and colleagues (2005). This may be a result of their limited ability to cope adaptively with overwhelming confusion, coupled with their perceptions of low self-worth (McCann, 1999). They are likely to experience shame or disgust as a result of verbal, sexual, or physical abuse from their parents, siblings, relatives, or family friends. They also may appear irritable, disquieted, and tense. They may have a tendency to anticipate catastrophe (McCann, 1999; Millon, 1993).

These adolescents are likely to have similarly high rates of substance abuse problems as the Offending Supportive profile group which is consistent with the literature that indicates similar rates in adolescent sex offenders and general offending counterparts (Davis & Leitenberg, 1987; Newman et al., 2009). However, this is inconsistent with the literature that has reported less substance abuse in adolescent sex offenders than their general offending peers (Righthand & Welch, 2005; Seto and Lalumière, 2010; Sikorski, 2005). That is, it would be
expected that the Offending Supportive group would be likely to have higher rates than the Detached group who are less like their nonsexual offending peers. It may be that the two personality-based profiles of adolescent sex offenders (i.e., Detached and Offending Supportive) both have similar rates of substance use with slightly different factors contributing. For example, the lonely, depressed, and anxious group may engage in substance use as a coping strategy for managing intense negative emotions as a form of self-medication, whereas the Offending Supportive group may engage in substance abuse as subgroup cultural normative antisocial behaviour.

As recorded from the file review, the Detached group, along with the Offending Supportive group, had slightly more adolescents who had been sexually victimised than the Typical Teen/Restricted (which approached statistical significance) which is consistent with previous research that has shown higher rates of sexual victimisation in adolescent sex offenders who are socially isolated, have problematic peer relationships and have internalising symptoms of anxiety, depression, and low self-esteem (e.g., Cooper, et al., 1996; Higgins, 2008). This is consistent with the “special explanation” (Seto & Lalumière, 2010, p. 529) that, at least for some adolescent sex offenders, their sex offending is a result of specific factors that cannot be accounted for by an offending-supportive lifestyle.

The Detached group had rates similar to the Offending Supportive group of previous bullying from peers but higher than the Typical Teen/Restricted group. The relationship between self-harm behaviours and victimisation from bullying in adolescent offenders has been reported previously (Viljoen et al., 2005), which is consistent with the results of this study. The Detached group were more likely, as compared to the other groups, to have academic problems or learning difficulties at school. This finding does not support the previous literature that has indicated that adolescent sex offenders are either similar to non-sex offending peers on
measures of intellectual or learning disabilities (e.g., Awad & Saunders, 1991; Ferrara & McDonald, 1996; Tarter et al., 1983; Spaccarelli, et al., 1997; Veneziano & Veneziano, 2002) or have fewer academic problems (Righthand & Welch, 2005) than their non-sex offending peers. Seto and Lalumière (2010) reported that adolescent sex offenders were more likely to have learning disabilities than their nonsex offending peers, but not more academic problems. It may be that this personality group has more learning disabilities rather than academic achievement problems. This was not teased apart in the current study due to the variable combining both characteristics within the same variable.

Of the three groups, the Detached group had the lowest percentage of having a stable relationship with the biological father, although this relationship was not significance. This is consistent with Higgins (2008) who reported that a group of broadly disturbed and socially withdrawn adolescent sex offenders has the lowest parental attachment as compared to the other personality profiles.

It is worth noting that this group was more likely (although not reaching statistical significance), along with the Typical Teen/Restricted group, to have adolescents who had sexually assaulted at least two males, as compared to the Offending Supportive group.

This pattern is consistent with Sikorski (2005) who reported that a group of adolescent sex offenders with more child male victims were more likely to be socially isolated and had more sexual deviancy than those offenders who has assaulted female peers. Higgins (2008) also found that a personality group of socially isolated and self-devaluing adolescent sex offenders had the highest rates of sexual deviancy. This is noteworthy given that sexual deviancy is currently considered likely to be an important predictive factor for sexual recidivism in adolescent sex offenders (McCann & Lussier, 2008; Worling & Långström, 2003, 2006). As previously noted in the literature (Worling, 2001) higher rates of both males
and child victims can be confounded by very few adolescent sex offences involving peer or adult males, thus more child victims will involve more male victims.

Although these variables did not reach statistical significance across the personality-based profiles, the conservative measurement of these characteristics suggests that they are important findings due to the potential of this pattern of preference in victim selection being formed during adolescence. Given that the selection of a male victim has been reported as one of the factors for predicting sexual recidivism in adolescent sex offenders (McCann & Lussier, 2008), this pattern is worth noting.

*Offending Supportive (Group 2)*

The Offending Supportive group’s mean score on the Disclosure Index fell within the range that suggested a moderate disclosing response style which provides sufficient information to be useful for clinical purposes (McCann, 1999). A positive or negative impression management was unlikely to be motivating response styles for these adolescents.

The Offending Supportive group had the highest elevation on the Unruly scale which was the only subscale that reached the recommended cut-off for having the presence of characteristics assigned to this scale. Thus, the Unruly scale can be viewed as an anchor. Other Personality Patterns scales that contributed less strongly towards this group’s personality profile were Oppositional, and Doleful. Although this group’s score did not reach the elevated level that is recommended for interpreting a scale as having the presence of related characteristics on the Forceful scale, it is noteworthy that their mean score was significantly higher than the other groups. The Expressed Concerns and Clinical Syndrome scales that contributed were Family Discord, Social Insensitivity, Delinquent Predisposition, Impulsivity, Depressive Affect, and Substance Abuse Proneness. This group’s low score on the Body Disapproval scale can be viewed as a protective factor and interpreted as a strength.
From the combined Modifying Indices, Personality Patterns, Expressed Concerns, and Clinical Syndromes scale profile, it appears that the major personality characteristics of the Offending Supportive group were antisociality and impulsivity. Although they may experience some ambivalence regarding compliance with the expectations of others and the need to satisfy their own wishes, this ambivalence is likely to be solved more by self-centred behaviours and attitudes than by subjugating their own needs for the well being or happiness of others (McCann, 1999; Millon, 1993). They are likely to anticipate humiliation and deceit from others, thus their exploitative behaviour is justified to themselves as a way of avoiding the perceived inevitable victimisation of their self (McCann, 1999). They may be ruthless in their desire to seek revenge for perceived wrongs, and are likely driven by an emotionally dysregulated internal system. Although they may feel disheartened, unhappy, or confused regarding their impulsive, hurtful, and changeable behaviours, they are unlikely to restrain their behaviours due to the strength of their belief that they must independently self-protect, and that a life of happiness apart from sensation thrill-seeking is already lost to them. Typical behaviours include threatening and intimidating others with or without the use of weapons, and persistent deceit. This group may be more motivated to maintain power and control over themselves and others than the other two groups.

These adolescents may have concerns regarding tense and conflictual family environments with regard to perceived support (Millon, 1993). There is typically a feeling of disengagement from parents which may be an indication of parental rejection and/or adolescent rebellion (McCann, 1999; Millon). They are likely to be indifferent to the emotions and responses of others, and unmoved by others’ discomfort or distress (McCann). They are likely to feel confident about their physical attractiveness and not be too confused about their
pubescent developing body (McCann, 1999). These adolescents may show signs of decreased interest in usual activities and may engage in substance use (McCann, 1999).

As recorded from the file review, the Offending Supportive group had fewer male victims and engaged in less anal penetration than the other two groups, although this only approached statistical significance. This pattern of fewer male victims for subgroups of adolescent sex offenders who have some antisocial characteristics has been found previously in the literature (e.g., Sikorski, 2005). Worling, (2001) also found lower rates of male victims in one of his personality-based groups (Confident/Aggressive) which has some consistencies the Offending Supportive group in the current study, with results similarly approaching significance.

The Offending Supportive group was as likely as the Detached group to be victims of previous bullying from peers, and more likely than the Typical Teen/Restricted group to have experienced this. This group was also more likely to have had nondeviant sex experience than the other two groups.

They had the highest rates of antisocial peers; however, this was not statistically different from the other two groups. They had the highest rate of engagement in more than three nonsexual types of offending as compared to the other groups; however, again this was not statistically significant. The Offending Supportive group had less child victims relative to the other two groups; however, once again, this was not statistically significant. Previous personality-based research has indicated relationships approaching significance between fewer child victims with an antisocial personality type (e.g., Higgins, 2008: Narcissistic/Delinquent and Distressed/Delinquent; Oxnam & Vess, 2008: Antisocial; Worling, 2001: Confident/Aggressive). This may also be confounded by having less male victims, as discussed previously in Chapter 1.
This pattern of results for the Offending Supportive group is very consistent with Awad and Saunders’ (1991) results of a group of adolescent offenders who had fewer child victims, less social isolation, higher family dysfunction, and more antisocial offending patterns than a subgroup of child-victim counterparts.

**Typical Teen/Restricted (Group 3)**

The mean score for the Typical Teen/Restricted group on the Disclosure Index suggested a response style of defensiveness and unwillingness to divulge personal qualities and concerns (McCann, 1999). This may be due to fear regarding how the clinician will use the information, a desire to present as well-adjusted or a general distrust of adults (McCann, 1999). Dishonest responding may be a driving factor in the test scores of these adolescents. The mean score for the Typical Teen/Restricted adolescents on the Desirability Index indicated that these adolescents may have responded to some extent for the purposes of positive impression management. Similar to the Offending Supportive group, the mean score for the Typical Teen/Restricted adolescents on the Debasement Index indicated that these adolescents are unlikely to have exaggerated their concerns or troubles (McCann).

None of the Personality Patterns, Expressed Concerns, or Clinical Syndromes scales reached the clinical cut-off point presence of personality characteristics in the Typical Teen/Restricted group. This suggests that this group may have few problematic personality characteristics (Millon, 1993; Oxnam, 2005). However, two subscales, Submissive and Dramatizing, were elevated above 60 BR points; thus, these subscales likely reflect, to some degree, the typical characteristics of this profile. Given the low score on the Disclosure scale of these adolescents’ scores, it may be that with more openness they would have acknowledged higher levels of problems. Therefore, scales that had a mean score that approached 60 (Conforming Egotistic and Unruly) may have produced higher elevations and be playing a
larger role in their personalities than is deemed when guided by the strict cut-offs. The Expressed Concerns and Clinical Syndromes scales that contributed to this group’s personality profile were Sexual Discomfort and Delinquent Propensity. The Typical Teen/Restricted group had four subscales that showed mean scores under 35 BR points (Identity Diffusion, Self-Devaluation, Body Disapproval, and Childhood Abuse), which suggests that the characteristics of these scales may be protective factors for these adolescents (Millon, 1993).

From the combined Modifying Indices, Personality Patterns, Expressed Concerns, and Clinical Syndromes scale profile, it appears that the major personality characteristic of the Typical Teen/Restricted group was dependency on others for direction, self-esteem, and affection. This may play out for them in a passive, albeit kind-hearted, style by wanting others to lead them towards their task or relationship (McCann, 1999; Millon, 1993). Alternatively they may seek other’s assurance and attention in a dramatic, active style through manipulation and inciting excitement in others to avoid boredom (McCann, 1999). Relationships are unlikely to be maintained due either to a passive inability to reciprocate and take risks or, instead through boredom or perceived rejection if others fail to provide their perceived required level of attention and protection (Millon, 1993). These adolescents are likely to be relatively conforming to social or subcultural normative values. However, their attachment to these normative values is likely to be superficial, and rare outbursts of rebellion may involve ruthless behaviour towards others (McCann, 1999).

Under the outward compliancy and structure, there is often a deep need to rebel and attend to their own needs and desires. They may be relatively unconcerned regarding the outcome of any infrequent misconduct and will seek direction and effort from others to solve any resulting problem. They may also be typically charming, talkative, and emotionally expressive. Others may view them as exhibitionists, and relationships are generally brief and
intense. They are often seeking exciting and interesting experiences. There also may be elements of grandiosity, lack of empathy for others, and self-entitlement, whereby these adolescents have a sense of oneself as superior and deserving as a result of doting and admiring early environments. They may expect that the world will recognise and attend to their superior status which is expected to come their way with little efforts from themselves. They likely present with confidence and narcissistic arrogance and as relatively unconcerned about the impact of behaviours on others. They may feel disturbed by their urges and may be frightened of expressing their sexuality. They likely experience preoccupation and conflict about the expected roles that their sexuality seems to entail. These adolescents may have problems with sexual urges being inconsistent with parental, peer, or cultural attitudes. However, these adolescents are likely to feel confident about their pubescent physical changes and feel secure in their own attractiveness (Millon, 1993). They may have some tendency towards impulsively acting out without regard for the social constraints, others, or the consequences, during which they may be intimidating or threatening towards others (McCann, 1999).

Due to lack of elevations on the Personality Patterns scales, it is possible that this group is a relatively psychologically healthy group of young males who are typically conforming to cultural and societal norms in a kind and cooperative manner while undertaking the journey of establishing a firmer and deeper identity which is typical of their adolescent developmental age in our society. Their sexual offending may, thus, be viewed as an impulsive act of rebellion within a context of resentment about their dependency on others and conforming to the needs and desires of others. However, due to their potential dishonest or non-disclosure response style, it is also possible that the personality characteristics described above for this group are more deeply entrenched and with more openness in responding would show elevated levels whereby these personality characteristics would be at a clinically problematic level. Of note
were the inconsistent results regarding two different measures of problematic substance use. Whereas, the MACI scales indicated that fewer adolescents used substances problematically in Typical Teen/Restricted group as compared to the other two groups, the file information suggested that all three groups were similar. Given that the information from the file review included information from sources other than self-report, and therefore is likely to be more reliable, it is likely that the adolescents under-reported in their responses on the MACI. This is consistent with their low scores on the scales that measured their willingness to disclose honestly and openly.

Comparisons of the current personality-based profiles with previous research

The consistency of the final cluster solution in the current study of three personality-based profile subgroups in male adolescent offenders with previous research is noteworthy. The Detached group in the current study was very similar to personality-based profiles in some studies (Higgins, 2008: Inadequate; Oxnam & Vess 2006, 2008: Inadequate; Richardson et al., 2004: Dysthymic/Inhibited; Worling, 2001: Unusual/Isolated) and some similarities with other personality profiles (Higgins: Broadly Disturbed; Smith et al., 1987: Group I). The Offending Supportive group in the current study was very similar to personality profiles in previous research (Higgins: Narcissistic/Delinquent; Oxnam & Vess, 2006: Antisocial; Oxnam & Vess, 2008: Antisocial; Richardson et al.: Antisocial; Smith et al.: Groups II and IV; Worling: Antisocial/Impulsive and Confident/Aggressive). The Typical Teen/Restricted group in the current study was also very similar to personality profiles found in previous research (Richardson et al.: Normal; Oxnam & Vess, 2006: Normal; Oxnam & Vess, 2008: Conforming and Passive-Aggressive; Worling: Overcontrolled/Reserved). There were some similarities of the Typical Teen/Restricted profile with other personality profiles found in previous research (Higgins: Anxious/Submissive/Passive; Smith et al.: Group III).
It was interesting that no statistically significant relationship was found between previous physical or sexual victimisation and personality-based profile groups. Given that the inter-rater reliability statistics indicated physical and sexual victimisation had “Substantial” and “Almost perfect” agreement, respectively, the measurement and recording of these variables is likely to be reliable and valid. Based on earlier research that indicated similarly high rates of physical victimisation for general, violent, and sexual adolescent offenders (Ford and Linney, 1995; Lewis, Shanok & Pincus, 1981) as well as the antisocial personality-based group of Worling, (2001) having the highest rate of physical victimisation, as compared to other groups, it would be expected that the Offending Supportive group in the current study would similarly have the highest rates. However, other personality-based studies have indicated that the highest rate of physical victimisation was in a different personality-based profile (e.g., the Inadequate group in Oxnam & Vess 2008) while others have reported non-significant results (Higgins, 2008; Smith et al., 1987). The lack of a clear relationship between previous sexual victimisation and personality profiles was consistent with previous research (e.g., Oxnam & Vess, 2008; Smith et al.; Worling, 2001). Thus, the current study does not provide support for previous physical or sexual victimisation being related to personality-based profiles.

It was also noteworthy that there was no statistical relationship between the variables that measured other types of offending behaviours and personality-based profiles. Given the antisocial personality style of the Offending Supportive group it was surprising that this group did not have higher rates of engagement in other types of offending. It was also surprising that the Detached group, which is characterised by social isolation, did not have fewer friends relative to the other groups. The results for some of the offender variables were likely to be limited by the definitions of the variables as well as the information available in the files (see
Section 4 for further details). The variables that I used to measure other types of offending in the current study (i.e., Other Offending and Criminal Versatility) resulted in a “Moderate” degree of inter-rater reliability, which suggests with a more reliable measurement of these variables, a different pattern may emerge.

**Proposed theory of personality-groups and clinical implications**

Based on the current study and previous research, it is likely that there are three to five main personality-based subtypes of male adolescent sex offenders. Given current literature that indicates that treatment is effective in reducing sexual, nonsexual violent, and nonviolent recidivism (Worling, Littlejohn, & Bookalam, 2010), these adolescents are likely to be benefit from specialised sex offender treatment.

The first group’s major characteristic is detachment from others which leaves them socially isolated and limited in appropriate social skills. Their detachment is likely to be primarily motivated by fear of peer rejection.

Given the selection of male victims being noted as important for prediction in sexual recidivism (McCann & Lussier, 2008), it may be that a subgroup of this group will likely benefit from interventions to address inappropriate sexual deviance/arousal to male children, given their higher rates of offending against male victims as compared to the Offending Supportive group. However, as this only approached statistical significance this needs to be interpreted with caution. At most, it may be suggested that adolescents in the Detached group (as well as the Typical Teen/Restricted group) showed a tendency towards sex offending against male victims as compared to a third personality profile.

This group may be at higher risk of reoffending than the Typical Teen/Restricted group. For example, Worling (2001) found that the Unusual/Isolated (which is similar to this study’s Detached group) was one of the personality-based groups of adolescent sex offenders that had
a higher rate of recidivism. Thus, in accordance with matching intervention with risk of reoffending (Andrews & Bonta, 2010) this group would warrant interventions for the purposes of reducing their risk of recidivism.

As other researchers have suggested (Oxnam & Vess, 2006; Worling, 2001), this group may benefit from group-based interventions with a primary focus on addressing their social isolation and social skills deficits. Given their anxiety and depressive symptoms of low self-esteem, hopelessness, helplessness and suicidal ideation and behaviours, this group is likely to require safety planning for risk to self as well as anxiety and depression-related CBT (Beck, 1995) or DBT (Linehan, 1993a, 1993b; McCann, 2007) techniques to aid their responsiveness to other treatment needs.

This group is also likely to benefit from systemic family therapy based interventions to address the areas they feel most troubled about regarding past childhood abuse. Inclusion of relapse prevention strategies to cope adaptively with substance abuse problems is also likely to be useful. For Auckland, New Zealand, male adolescent sex offenders, the Wilderness Training (WT) may provide maximum benefit for this group through the “enhancing relationships” (Somervell & Lambie, 2009, p. 171) and “view of self” (Somervell & Lambie, p. 171) aspects of the intervention. Although all the groups are likely to benefit from responsiveness to learning styles, given their higher problems with academic achievement and/or learning, these individuals may benefit from a more intense focus on interventions that are tailored to learning disabilities. Interventions for this group are likely to provide the optimum benefits if the intervention administration is tailored to meet these learning styles (e.g., presentation of material in visual, symbolic, or auditory mode).

The second group’s major characteristic is an offending supportive lifestyle which includes antisocial attitudes, antisocial associates, and antisocial behaviours (e.g, substance
abuse and impulsivity). This is likely to be a subgroup of adolescent sex offenders whose sexual offending may be committed in the context of a general offending lifestyle. Similar to the Detached subgroup, this personality-based subgroup may be at a higher risk of sexual or non-sexual recidivism (e.g., Worling’s Antisocial/Impulsive group) and thus, warrants intervention subsequent to detection of sex offending. This group may benefit from group-based interventions with a primary focus on addressing general antisocial attitudes, behaviours and associations, such as cognitive restructuring and increasing skills and rewards for pro-social peer networks (Higgins, 2008; Oxnam & Vess, 2006, 2008; Worling, 2001). Given their typical disregard for social laws and/or authority as well as their desire for power and control, this group is likely to benefit from a focus on the therapeutic relationship (Oxnam & Vess, 2006) and Motivational Interviewing (MI: Miller, & Rollnick, 2002). Specifically, this group may gain increased benefit through the use of MI concepts which involve using a collaborative approach and encouraging authenticity, transparency, and self-autonomy as well as working with current barriers to change. Anger management, problem-solving, and emotional regulation skills training are also likely to address impulsivity and mood-related offending behaviours. Inclusion of relapse prevention strategies to cope adaptively with substance abuse problems is likely to be useful. Hostility towards women may be particularly high for the adolescents in this group who also engage in nonsexual violent offences against females, therefore, this group is likely to benefit from addressing dynamic stable and acute hostile attitudes and emotions. This group is also likely to benefit from systemic family therapy based interventions to address the areas they feel most trouble about regarding past childhood abuse and family dysfunction. For Auckland, New Zealand, male adolescent sex offenders, the Wilderness Training (WT) may provide maximum benefit for this
group through the aspects of this intervention that incorporate the “intensity of the experience” (Somervell & Lambie, 2009, p. 168) and “aiding disclosure” (Somervell & Lambie, p. 168).

The third group of adolescent sex offenders is a subgroup of male adolescent sex offenders who did not present with abnormally elevated levels of personality-based characteristics due to either these characteristics not being present, or due to under-reporting. This group’s higher levels of dependency on others for direction as compared to the other two groups, may allow for responsiveness to interventions due to their ability to follow the direction of others (i.e., facilitators). This group is unlikely to benefit from an emphasis on the development of prosocial values, in contrast to the Offending Supportive group. They are likely to gain benefit from addressing their need for independent thinking and behaving, particularly with respect to sexuality and other interpersonal interactions.

This group may be less likely to recidivate sexually or non-sexually (consistent with Worling’s Overcontrolled/Reserved groups). In the current study, this group was the largest personality-based sub-group which is consistent with the literature that indicates that the majority of male adolescent sex offenders do not persist in their sex offending (Worling, 2010; Zimring, 2004). These adolescents may be likely to be a group who desist from further sexual assault due to the shame and embarrassment of detection (Worling & Långström, 2006).

However, it is of note that this group was more likely, along with the Detached group, to have adolescents who had sexually assaulted at least two males as compared to the Offending Supportive group, although not statistically significant. As with the Detached group, it may be that a subgroup of this group will likely benefit from interventions to address inappropriate sexual deviance/arousal to male children.
Section 3: Strengths of the current study

This study had a number of strengths for assisting current understandings of male adolescent sex offenders, including sample size, a large number of offender background variables, including chronological measurement of variables, precise and meaningful measurement of victim variables, current relevancy, the use of various cluster analysis techniques, clinical applicability, and good inter rater reliability.

Sample size. This study had a large sample size. This increased the power of the parametric statistics to detect differences if they existed. It also allowed for meeting assumptions of the nonparametric Chi-square tests (e.g., cell counts).

Offender background measurement. Although the collection of data was retrospective, and the recording of offender variables was completed concurrently with other data (e.g., MACI scores at assessment), substantial efforts were taken to define the offender background variables chronologically by recording variables if there was evidence of the characteristic prior to the index sexual offending and assessment. This was aimed towards assisting any interpretations about the causal contributions of the background characteristics rather than these offender characteristics being a consequence of the sexual offending. For example, families are likely to experience increased levels of stress as a result of detection of an adolescent sex offender within their family, and thus needs to be differentiated between high family stress occurring prior to the sexual offending.

Operationalisation of victim-related variables. Substantial efforts were made to define the victim-related variables to further clarify previous findings in the literature. For example, the variables were measured as ‘ever two’ victims to investigate potential patterns of victim selection and to control for the fluidity of victim selection in adolescent sex offending.
Current relevancy. The study sample is current (i.e., the date of assessment ranges up to 2009) and, therefore, is relevant for current populations of male adolescent sex offenders.

Cluster analyses. As recommended in the literature (Wales, 2005; Worling, 2001), a number of cluster analyses were conducted to investigate the personality-profile groups, which assisted the final solution of a meaningful set of clusters.

Clinical applicability. The final cluster solution in the current study is theoretically and practically applicable for clinical settings. For example, having three personality-based types to guide interventions is more practical than designing personality-based interventions for a higher number of profile groups (e.g., Higgins, 2008).

Inter-rater reliability. For some of the offender, offence, and victim variables measured there was a ‘substantial’, ‘almost perfect’ or ‘perfect’ agreement between the raters. This suggests that these variables were well-defined and reliably recorded in the files.

Section 4: Limitations of the current study

This study had a number of limitations, many of which are shared with other similar studies in this field.

Lack of matched control group. There was no matched nonoffending or nonsexual offending comparison group of New Zealand, male adolescents.

Normative data. Furthermore, the normative data used for the MACI are from North American samples, as there are no New Zealand normative data for this test to date. Although the MACI has been used previously in New Zealand research, the applicability within New Zealand populations has not been well-established. It is well documented that individuals of Māori ethnicity have a number of unique cultural and personality-based characteristics. For example, Houkamau (2006) reported that individuals of Māori ethnicity have more of a...
collective and colonised sense of identity regarding personality characteristics than traditionally individualistic Western concepts of personality. It has not been investigated whether the collective identity aspects of personality for Māori are captured in the MACI; therefore, it remains questionable if the MACI is a valid measure for assessing personality in Māori adolescent males. Furthermore, the Expressed Concerns, or Clinical Syndromes scales do not include any items that measure such factors as colonisation, cultural identity or racism thus, although the scores of the current sample did not reflect any relationships for the personality-based profile groups for ethnic background, it has not been established how applicable the MACI is for Māori adolescents. For example, the Expressed Concerns scales are designed to capture the concerns that are most prominent in the adolescents’ current experience. Thus, if not measured, may be failing to accurately capture current concerns. Given that approximately one-third of the current sample were of Māori ethnicity, this has particular relevance.

*Self-report.* Consistent with other personality-based studies, this study is limited by the retrospective self-report instrument that was used for the personality-based profile groups. Thus, responses may be over-reported due to a motivation to justify sexual offending or under-reported, motivated by shame of self-disclosure and/or distrust of others.

*Type I error.* Due to the high number of tests conducted for the offender, offence, and victim characteristics, an increased probability of Type I errors is accumulated. However, given the limited significant results in the current study for offender, offence, and victim variables recorded from file information other than MACI scores, this is unlikely to have occurred.

*Direction or causality.* Although substantial efforts were made in the current study to record background information only if it was present prior to their sexual offences, it was
sometimes difficult to obtain clear file information about the dates of onset of specific variables. For example, at times it was recorded that an adolescent had experienced sexual victimisation but not recorded specifically if his own victimisation occurred prior to his first perpetration of sexual offending. Thus, any interpretations about causality need to be interpreted with caution.

**Methodological problems.** Due to some inconsistency with retrospective recorded file information and the variables under investigation, some of the background offender characteristics were not recorded with a high degree of reliability. This was particularly true for some family background characteristics (e.g., Stable relationship with Mother/Father). If there was no information for a variable, it was coded as “not present” thus leading to potential over estimation of the characteristic being not present rather than this variable not having been recorded due to unavailability of information.

Related to the above discussion regarding insufficient file information, the definitions of some of variables of interest were somewhat inconsistent with the recorded file information. Of note, these methodological limitations likely accounted for the “Slight” to “Fair” or nonsignificant inter-rater reliability results for some variables. Specifically, one of offender background variables that produced significant relationships with the personality-based profile groups (i.e., Consensual Sexual Experience with Peers) had an inter-rater reliability statistic that was nonsignificant.

**Generalisability.** The current sample is the only personality-based classification of adolescent sex offenders conducted in Auckland, New Zealand. Thus, it is not established whether the results of the current study are replicable by other researchers using a similar population. Furthermore, although these results have indicated a reassuring consistency with previous studies conducted in other countries, the applicability of the current study’s results
outside of Auckland, New Zealand is unknown. Only one other research group (Oxnam & Vess, 2006, 2008) has conducted studies of a similar kind in New Zealand.

Section 5: Future research

Directions for future research are suggested to address some of the limitations in the current study. First, a follow-up study using the current sample is recommended to investigate relationships between the personality profiles, treatment outcomes, other types of offending and recidivism. If a follow-up study included official histories of offending data, further clarity could be gained about personality-based groups relationships with other offending. It would be expected that the Offending Supportive group would have higher rates of engagement in other types of nonsexual offending relative to the other groups. This would be consistent with Butler and Seto’s (2002) theory of two distinct types of adolescent offenders and would fit with the theory that Offending Supportive adolescent sex offending can be formulated by the “general explanation”, and the Detached adolescent sex offending be best formulated by the “special explanation”. Although my variables of other offending did not support this, a further study using official data of offending may clarify this. Further New Zealand studies to classify male adolescent sex offenders on personality-based characteristics is recommended to determine support for the promising results of the personality-based subgroups in the current study. A study of a similar personality-based classification using a New Zealand sample of adolescent males serving sentences of imprisonment for sexual offending could be conducted for comparing differences between community-based and prison-based populations. Optimum benefit is likely to be gained from a further study reducing the number to offender background characteristics to specific variables that are currently viewed as likely or potential risk factors for adolescent general or sexual recidivism, such as
victim-related characteristics (male, stranger, child or adult), prior sexual and nonsexual offending with early age onset, antisocial attitudes, antisocial associates, social isolation, interpersonal aggressive problems, hostility, impulsivity, low reading comprehension, stress and anxiety, and family dysfunction, (McCann & Lussier, 2008; Rucklidge et al., 2009).

Substantial efforts to define, measure, and record these variables are likely to facilitate confidence in the subsequent results. For example, McCann and Lussier suggest recording the type and number of officially recorded convictions.

An exploration of clinical opinion regarding personality-based characteristics and classification may also contribute to current understandings as per the scientist-practitioner model of integrating both research and practice. An investigation of personality-based characteristics for adolescent sex offenders of Māori and/or Pacific Island ethnicity may further our understandings of the applicability of current personality-based measures and or theories of personality and offending to these populations. Finally, a study of New Zealand community-based adolescent female sex offenders on personality and offender, offence, and victim characteristics may increase our knowledge regarding the similarities and differences between male and female adolescent sex offenders.

Section 6: Summary and conclusion

The current study provides support for the heterogeneity of male adolescent sex offenders on personality and psychopathology characteristics. It also supports the classification of subgroups of male adolescent sex offenders on personality-based characteristics, as measured by the MACI. The overall high rates of previous victimisation, family dysfunction, general offending, social isolation, substance use, and other mental health difficulties that were found in this study highly concurs with previous research in this field.
The three cluster solution in the current study, for the classification of male sex offenders on personality-based characteristics, was validated by further statistical analyses and was theoretically meaningful. Furthermore, the three personality-based profiles, Detached, Offending Supportive, and Typical Teen/Restricted, are practical for application to clinical settings. The lack of statistically significant relationships of the majority of offender, offence, and victim characteristics is likely a consequence of the fluid nature of male adolescent sexual offending with regard to their developmental stage of identity formation and related behaviours. Focusing on personality styles for intervening in sex offending trajectories may be more beneficial than attempting to tease apart specific offence and victim-related characteristics for the purposes of tailoring their needs to interventions. Methodological problems with data measurement and collection in the current study, as discussed in the previous section, are also likely to have influenced the results. The increase in the number of researchers investigating adolescent sex offending during the past 15 years is likely to continue, and thus, facilitate our growing understandings of adolescent sex offenders.
## APPENDIX A

### Scales of the MACI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Modifier Indices</th>
<th>Reliability Index</th>
<th>Disclosure</th>
<th>Desirability</th>
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### Expressed Concerns

| A | Identity Diffusion |
| B | Self-Devaluation |
| C | Body Disapproval |
| D | Sexual Discomfort |
| E | Peer Insecurity |
| F | Social Insensitivity |
| G | Family Discord |
| H | Childhood Abuse |

### Clinical Syndromes

| AA | Eating Dysfunctions |
| BB | Substance-Abuse Proneness |
| CC | Delinquent Predisposition |
| DD | Impulsive Propensity |
| EE | Anxious Feelings |
| FF | Depressive Affect |
| GG | Suicidal Tendency |
APPENDIX B

Letter of approval from The University of Auckland Human Participants’ Ethics Committee

THE UNIVERSITY SECRETARIAT
Office of the Vice-Chancellor
Research Ethics and Biomedical Safety Administration

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE

27 November, 2007

MEMORANDUM TO:

Marla Purcell
Psychology

Re: Change to application

I wish to advise you that the Committee met on 23 November, 2007 and reviewed the request for change to your application titled “A personality-based classification of a NZ community sample of male adolescent sex offenders” (Ref. 2007/350).

The Committee approved the change.

If the project changes significantly you are required to resubmit your application to the Committee for further consideration.

In order that an up-to-date record can be maintained, it would be appreciated if you could notify the Committee once your project is completed.

Please contact the Chairperson if you have any specific queries relating to your application. He and the members of the Committee would be most happy to discuss general matters relating to ethics provisions if you wish to do so.

[Signature]

Margaret Rotando
Executive Secretary
University of Auckland Human Participants Ethics Committee

c.c. Head of Department, Psychology

Marla Purcell
8 Vincerey Place
Green Bay
Auckland

1. All communications with the committee regarding this application should indicate this reference number—2007/350.
2. At the end of the three years, or earlier if the project is completed, you are requested to advise the Committee of its completion.
Code No……….. (participant number + from SAFE file)

Offender characteristics

1. Age (offender) at MACI assessment …. (in years)

2. Ethnicity (select all that apply)

- Pakeha / NZ European (1)
- Māori Iwi/Hapu (specify) (2) ………...
- Pacific Island (3) (specify) ………..
- Asian (4) (specify) ………………
- Other (5) (specify) ………………..

3. Date of MACI administration (pre-treatment) …/…./….(dd/mm/yy)

4. Physical victimisation by primary caregiver/s?

- Yes (1)
- No (2)
- Unknown (0)

5. Gender of perpetrator:

- Male (1)
- Female (2)
- Unknown (0) BOTH 3

6. Ever Exposure to IPV in childhood

- Yes (1)
- No (2)
- Unknown (0)

7. High Family Stress (evidence from file)

- Yes (1)
- No (2)
- Unknown (0)

8. Victim of bullying (school/siblings/peers)
9. Perpetrator of bullying school/siblings/peers

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

10. Victim of sexual abuse? (evidence in files of 1. experiencing any unwanted sexual contact or 2. if sexual contact with person who was at least 4 yrs older than the adolescent at time of incident).

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

11. Gender of perpetrator:

☐ Male (1)  ☐ Female (2)  3 BOTH ☐ Unknown (0)

12. Relationship to perpetrator: ever Relative

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

13. Ever use Pornography?

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

14. Living situation (at time of assessment): at home (including relatives) - excluding residential or foster home

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

15. Parental Stability: Parents living together and/or married (at time of assessment)

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

16. Stable relationship with mother (at time of assessment)

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

17. Stable relationship with father (at time of assessment)

☐ Yes (1)  ☐ No (2)  ☐ Unknown (0)

18. Sexual experience

Ever non-deviant peer sexual experiences (evidence from files of consensual peer (16 or over and less than 4 yrs age difference).
19. Other offending

*Ever other offence:* dishonesty, assaults, animal cruelty, vandalism, fire setting (evidence from files of offence - self report or other)

☐ Yes (1) ☐ No (2) ☐ Unknown (0)

20. Offending versatility - number or other types self-report or other

Dishonesty (lying/theft/burglary/shoplifting) assaults, animal cruelty, vandalism/tagging, fire setting, Truancy.

21. Offending at aged 12 or under. (any evidence from file)

☐ Yes (1) ☐ No (2) ☐ Unknown (0)

22. Age of first sexual offending

……….. (age in years). if no evidence of prior put age at assessment

23. Still attending school?

☐ Yes (1) ☐ No (2) ☐ Unknown (0)

24. Academic/Learning difficulties in school (evidence from file)

☐ Yes (1) ☐ No (2) ☐ Unknown (0)

25. Behavioural difficulties in school? (evidence from file)

☐ Yes (1) ☐ No (2) ☐ Unknown (0)

26. child attending multiple moves/schools? (>6) or qualitative statements of “several moves in childhood etc)

☐ Yes (1) ☐ No (2) ☐ Unknown (0)

27. Level of denial/minimisation of sexual offending at assessment

☐ (1) Adolescent FULLY acknowledged ALL aspects of ALL sexual offences
(2) Adolescent acknowledged most aspects of offending and denied a few aspects
(3) Adolescent acknowledged some aspects of offending and denied other aspects
(4) Adolescent denied most aspects of offending and acknowledged a few aspects
(5) Adolescent minimised sexual offending
(6) Adolescent denied sexual offending

28. Number of siblings
   (including biological, half, step, adopted/whangai/foster) # Brothers  # Sisters

29. Family/whanau (e.g. parents, siblings) committed sexual offences? (self-report or conviction)
   Yes (1)  No (2)  Unknown (0)
Family/whanau (e.g. parents, siblings) committed non-sexual offences? (self-report or convictions)
   Yes (1)  No (2)  Unknown (0)

30. Family History of Physical Victimisation
   Yes (1)  No (2)  Unknown (0)

31. History of alcohol/drug abuse by parents/caregivers
   Yes (1)  No (2)  Unknown (0)

32. History of psychiatric/Physical health problems in parents/caregivers
   Yes (1)  No (2)  Unknown (0)

33. History of chronic unemployment/poverty in parents/caregivers
   Yes (1)  No (2)  Unknown (0)

34. Actively involved in sport(s)/hobby?
   Yes (1)  No (2)  Unknown (0)

35. Types of friends
(1) Friends mostly involved in anti-social / delinquent behaviour/gangs
(2) Friends mostly involved in pro-social behaviours and activities
(3) Mixed
(4) No/Limited Friends

36. Report or evidence of alcohol/drug abuse?
   □ Yes (1)    □ No (2)    □ Unknown (0)
   Any attempted suicide / self harmed prior to assessment
   □ Yes (1)    □ No (2)    □ Ideation (3)    □ Unknown (0)

Victim characteristics

37. Age: ever 2 or more child? (if offender was at least 4 yrs older than the victim and the victim was under 12 offence considered child victim).
   □ Yes (1)    □ No (2)    □ Unknown (0)

38. Sex: ever 2 or more males?
   □ Yes (1)    □ No (2)    □ Unknown (0)

39. Relationship to offender: ever 2 or more strangers (strangers defined as victims who were not known to the offender previous to offending i.e., NOT intrafamilial (full, half, step, adopted, whangai, or foster includes siblings, cousins, nieces and nephews) NOR known through close neighbourhood or close friendship with family.
   □ Yes (1)    □ No (2)    □ Unknown (0)

Offence characteristics

40. Force/threats/weapons: ever use of physical force, weapons or threat of violence?
   □ Yes (1)    □ No (2)    □ Unknown (0)

41. Type of offence: ever attempted/and or anal penetration?
   □ Yes (1)    □ No (2)    □ Unknown (0)
42. Ever attempted and/or vaginal penetration?

☐ Yes (1)       ☐ No (2)       ☐ Unknown (0)

43. Only hands off?

☐ Yes (1)       ☐ No (2)       ☐ Unknown (0)

44. Only Genital touching and/or Oral or non-penetration

☐ Yes (1)       ☐ No (2)       ☐ Unknown (0)

45. Bestiality

☐ Yes (1)       ☐ No (2)       ☐ Unknown (0)
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