

Impacts of programs for adolescents who sexually offend

Literature review



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About the authors

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Stephen Smallbone is an Associate Professor in Criminology and Forensic Psychology at Griffith University in Queensland, Australia. He has been working with adult sexual offenders for the past 15 years, and with adolescent sexual offenders for the past four years. Since completing his PhD in 1999 he has produced some 20 journal articles and book chapters, as well as numerous government reports, on adult and adolescent sexual offending. His main research and professional interests are concerned with developmental, systemic, and situational aspects of sexual crime. Dr Smallbone is currently the director of a government funded, university-based program – the GAFATC project – that provides assessment and therapeutic services to young sexual offenders and their families, and training and support services to statutory workers.

Executive summary

Introduction

Despite the growing concern about sexual offending within our community, much remains unclear about both the etiology of the problem and the most effective way to respond to it. The last twenty years, however, has seen an increase in the United States (and, to a lesser extent, Australia) in the amount of research about etiology, rates of sexual recidivism, the accuracy of predictions of sexual violence as well as the efficacy of sex offender treatment programs.

Over the last 20 years it has also become apparent that not only is significant harm caused by the sexual abuse of children, but that many of the perpetrators of this abuse are themselves young. Figures from New South Wales (NSW) Health on initial presentations to Sexual Assault Services indicate that in 1995-96, a male child under the age of 16 was the assailant in 16.2 per cent of cases of child sexual assault (Spangaro, 2001). Male adults who are known to the victim are the most common assailants in cases of child sexual assault in NSW. For three out of the last four reporting years, however, the *second* most common assailant for girls was a male child under the age of 16. Similarly, in recent reporting years, the second most common assailant for boys was a male child under the age of 16, except for 1994/95, when a male child under the age of 16 was the *most common* assailant (27.1 per cent of cases).

In recent years, a number of treatment programs have been established for adolescents who have sexually offended. The first treatment program in Australia was the Trek program, funded by the NSW Department of Health in 1990 and based on the Central Coast of NSW. The NSW Department of Juvenile Justice established a program in 1991 and a recent publication identified 14 current programs operating in Australia for young people with sexual behaviour problems/offences (Flanagan, 2003).

As the field of sex offender treatment began to consider adolescent sex offenders during the 1980s, the emphasis was firmly on the fact that they were *sex* offenders, rather than *adolescents* and intervention programs based on work with adult offenders were routinely adopted. Given the relatively large volume of literature on developmental psychology, personality development and even general juvenile delinquency (eg Loeber & Farrington, 1998), it is perhaps surprising that this should be the case. It is also a situation that has not gone without comment in the field, with many commentators now calling for a re-thinking of clinical approaches to working with this population (Chaffin & Bonner, 1998; Letourneau & Miner, 2005). The field is also at somewhat of a cross-roads in terms of the increasing call to resist the “trickle down phenomenon” of keeping young people who have committed sex offences in treatment longer than necessary using adult-based models of intervention. There is also now an increasing emphasis on developing valid and reliable adolescent-focused typologies, assessment methods and interventions (Freeman-Longo, 2003).

Unfortunately, however, the empirical basis for work with this population is not yet well advanced and many programs either rely on a range of assumptions about the nature of this work, or model their programs on treatment with adult sex offenders.

Aims and methodology

The objective of this review was to inform an economic (cost benefit) analysis of different service delivery options for adolescents who sexually offend. In order to undertake this analysis, a short literature review was needed to establish the state of current research evidence in models of service provision to young sex offenders, their families and other relevant parties. The target group was young people aged 10 – 17 years who are not convicted of an offence and do not qualify for services through the NSW Department of Juvenile Justice.

A collection of literature supplied by the NSW Department of Community Services was added to other resources already held by the Griffith Adolescent Forensic Assessment and Treatment Centre (GAFATC) at Griffith University. A further search of the literature ensured that the review was as comprehensive and as broad as possible.

The resulting collection of literature was categorised into a) commentaries on issues related to treatment with this population, b) program descriptions, c) previous reviews of the adolescent sex offender literature, d) treatment outcome studies, e) recidivism studies that included treatment as a predictor variable, f) meta-analytic reviews of adolescent sex offender treatment studies, and g) selected studies on treatment with adolescent non-sexual offenders. In all, 23 adolescent sex offender treatment outcome studies published since 1990 were identified and reviewed.

The treatment literature

The treatment literature on adolescents who have sexually offended is, like the subject matter, extremely heterogenous. Just as the young people themselves fall at different places along the continuum of sexual aggression, so too are different treatment programs positioned at different levels of response. The review considered individually oriented treatment approaches, combination approaches, residential treatment programs, community-based treatment programs as well as multi-system approaches.

It is also clear from the literature that different client groups receive different treatment regimes in different settings, and that treatment outcome studies use a variety of outcome measures. This makes direct comparisons across studies somewhat difficult. In the present review, a system of rating the various studies was adopted as a means to better evaluate the different approaches to treatment. Very few studies involved random assignment to different treatment conditions, or the use of comparison or control groups.

Treatment outcome studies

In general, recidivism rates for young people who had successfully completed a treatment program were low (typically below 10 per cent). In studies that used comparison groups, differences in sexual recidivism of up to 63 per cent were observed between treated and un-treated groups, however reductions in recidivism rates of 13 per cent were more typical. Recent meta-analytic studies that had included intervention as a predictor variable were also considered, however the results of meta-analytic reviews remain equivocal.

While many early studies employed adult-style treatment approaches and targeted individual-level treatment goals, more recent programs have taken a more holistic and multi-system approach to working with this population. One such approach, Multisystemic Therapy (MST), has been rigorously evaluated as an effective treatment approach with the general juvenile delinquent population and, to a lesser extent, also been validated as an effective treatment approach for young people who have sexually offended.

It is important to note that even small effect sizes can result in large differences in terms of victims and financial cost. In a recent meta-analysis of the effectiveness of treating youth (general offenders) in conflict with the law in Canada (Latimer, Dowden & Morton-Bourgon, 2003) an overall effect size of nine per cent was observed. The authors noted that this difference theoretically prevented more than 1,300 offenders from re-offending. Considering the large costs associated with prosecuting adolescents who have sexually offended, providing treatment for them and providing ongoing support or treatment for their victims, even small effect sizes have the potential to result in very large savings for funding bodies.

The magnitude of these effects and the net benefit to Australian society with regard to the treatment of adult sex offenders has already previously been demonstrated (Shanahan & Donato, 2001).

Conclusions

Despite the somewhat confused state of the treatment literature and difficulties in making study comparisons, there appears to be reason to hope that well resourced and carefully constructed treatment programs can have a significant effect in reducing both sexual and non-sexual recidivism. Reductions of 13 per cent in sexual recidivism have been observed between treated and non-treated adolescents in overseas treatment programs. Programs that appear most likely to demonstrate treatment effects are those that address functioning in a broad range of areas, including the individual, family, school and community systems. While individual service providers in private practice may contribute to a multi-system treatment intervention plan, a reliance on individual-level interventions by themselves appears unlikely to lead to the reductions in recidivism associated with the more holistic treatment approaches. It also appears that involvement of families is an adjunct to successful treatment.

Rates of transition from adolescent to adult sex offender are now thought to be much lower than previously assumed, however, a minority of adolescents are at risk of continuing their sexual offending into adulthood and adult sex offenders who started their offending in adolescence may be among the more chronic offenders with longer histories and more victims. It is important therefore to provide high quality assessment and intervention programs for this population. At the same time, given that the substantial majority of adolescent sex offenders do not proceed to commit further sexual offences, interventions should ensure that they are not excessively and unnecessarily intrusive. The challenge remains to provide an appropriate intensity of intervention for higher-risk youth, while ensuring that valuable treatment resources are not wasted and that lower-risk youth and their families are not drawn into intensive, protracted, and often highly intrusive interventions.

Given the relative lack of good-quality research in this area, it is important for those developing treatment programs in this area not only to base the intervention on sound theoretical principles, but also to plan them in such a way that facilitates the conduct of good quality research and empirical evaluation.

1. Introduction

This review of the literature will firstly describe the social and academic context from which scholarly investigation into sexual offending by adolescents has emerged. Previous reviews of the treatment literature will then be considered, and treatment outcome studies and recidivism studies where treatment has been used as an independent (predictor) variable will be reviewed and analysed. Finally, conclusions will be drawn regarding which modes of intervention appear to be most effective with this population of young people.

The high prevalence rate of sexual assault of children and women has been well documented in the professional literature for over 60 years (Salter, 1988 p. 427). Sex offenders have been subject to various forms of intervention since at least as early as 1935 (Pithers, 1993), and yet comprehensive etiological theories regarding sexual offences and sexual offenders have been slow to emerge (Marshall & Barbaree, 1990; Smallbone, in press; Wood, Grossman & Fichtner, 2000).

This can be explained by a number of factors. Firstly, human sexual behaviour is complex and multifaceted and includes a range of socially acceptable behaviours (eg consenting sexual relations between adults), a range of socially tolerated behaviours known as paraphilias which in some circumstances may be considered to be a mental health concern (eg fetishism, transvestic fetishism or sexual sadism/masochism), other behaviours that are both illegal and considered to be a mental health concern (eg pedophilia, exhibitionism, voyeurism or bestiality), as well as other behaviours that may be illegal but are not considered to be a mental health concern (eg a 15 and 14 year old engaging in “consenting” sexual relations). Additionally, despite progress in being able to define sexual behaviour that is “deviant”, references to what constitutes “normal” sexual behaviour are conspicuously absent in the literature, raising important questions about the goals of treatment.

A second important factor is that much of the current body of knowledge on sexual offending and offenders has emerged from the United States (US) and was developed within the crucible of heated public debate about legislative responses to sexual offending over the last three decades. During the 1980s, two important processes were concurrently taking place.

First, a number of studies were conducted in the US that suggested that adults who sexually assault children had a high number of diagnosable paraphilias, that these paraphilias had an early onset, were life-course persistent and that such men were likely to have hundreds of victims over the course of their lives (Abel, Becker, Cunningham-Rathner, Mittelman & Rouleau, 1988; Abel & Osborn, 1992). Second, during the same period a number of American states launched various “tough on crime” campaigns. These led to a number of legislative reforms, including several states adopting “sexual predator” commitment laws. These laws allowed for the civil commitment (ie incarceration) of sex offenders found to be both mentally disordered and dangerous. Under the provisions of this kind of legislation, such persons could be involuntarily confined for treatment and not released until it was determined that their level of risk had sufficiently subsided. Similar laws have recently been passed in Australia, notably in Queensland (eg *Dangerous Prisoners (Sex Offenders) Act 2003*).

The last twenty years has therefore seen an increase in the US (and, to a lesser extent, Australia) in the amount of research and debate about rates of sexual recidivism, the accuracy of predictions of sexual violence as well as the efficacy of sex offender treatment programs (Becker & Murphy, 1998; Doren, Chaffin & Bonner, 1998; Nagayama Hall, 1995; Pithers, 1993). Due to the emotive nature of the subject, these debates often produced more heat than light, although the wry observation has also been made that the quality of the debates also surpassed the quality of most of the research at this time (Pithers, 1993).

This is arguably because much of the research was in reaction to the legislative agenda and the differing priorities in an adversarial criminal justice system. Some people questioned the efficacy of sex offender treatment programs, preferring instead for sex offenders to simply serve lengthy prison sentences. Others questioned the ability of professionals to accurately predict the likelihood of future sexual violence and therefore questioned the ethics of detaining people using tools that produced such high numbers of false-positives (ie predicting that a person will re-offend when they don't). The debate continues to this day in Australia, as well as overseas.

1.1 The emergence of offence-specific programs for adolescents

During the 1980s, it became apparent that not only was significant harm caused by the sexual abuse of children, but that many of the perpetrators of this abuse were themselves young.

Becker and Hicks (2003) discuss the emergence of sexual abuse perpetrated by adolescents becoming an issue of public health. This was partially in response to the growing understanding of the significant negative effects of sexual abuse on the health of victims.

1.2 Child sexual abuse

The deleterious effects of child sexual abuse include depression, anxiety, post-traumatic stress disorder and increased risk for suicide (Friedrich, Beilke & Urquiza, 1988; Gidycz & Koss, 1989; Holmes & Slap, 1999; McLeer, Deblinger, Atkins, Ralphe & Foa, 1988).

Kendall-Tackett, Williams, and Finkelhor (1993) reviewed 45 studies in order to assess the impact of child sexual abuse on children's functioning. In terms of psychological symptomatology, they found that sexual abuse was related to sexual abuse-specific symptoms such as sexualised behaviours. More general symptoms included depression, aggression and social withdrawal. However, they noted that sexually abused children were not typically more symptomatic than other children presenting to clinics, except with regard to sexualised behaviours and greater prevalence of posttraumatic stress disorder (PTSD).

The authors further assessed the extent to which symptomatology varied according to age and concluded that sexualised behaviours may manifest in preschool children, remain dormant in the middle school years, and re-emerge during adolescence in the form of promiscuity or sexual aggression. With regard to the influence of offence characteristics on symptomatology, they reported, "molestations that included a close perpetrator; a high frequency of sexual contact; a long duration; the use of force; and sexual acts that included oral, anal, or vaginal penetration lead to a greater number of symptoms" (p. 171). Additionally, a lack of maternal support in the context of abuse disclosure and a negative coping style on the part of victim were related to worse symptoms.

Kendall-Tackett et al. (1993) also examined longitudinal studies to determine the likely course of sexual abuse symptoms in children. They concluded that in the majority of cases the symptoms abated with time, however, the recovery patterns differed depending upon the symptoms under examination. Associated variables included maternal support (leading to quicker recovery) while court involvement tended to hinder recovery. Revictimisation statistics ranged from 6 per cent to 19 per cent and was considered to be lower than rates existing among children who had suffered neglect or emotional abuse. The authors reported that two-thirds of the children became less symptomatic during the first year and a half after abuse disclosure while 10 to 24 per cent experienced a worsening of symptoms. The role of a supportive family environment was considered a major factor influencing a positive outcome.

Davis and Petretic-Jackson (2000) recently reviewed the impact of child sexual abuse on later adult functioning. Their findings suggest that the symptoms reported by Kendall-Tackett et al. (1993) may continue into adulthood. There exists substantial variability in the functioning of adult survivors, with some being able to establish long-term relationships and others exhibiting a pattern of casual relationships sometimes characterised by promiscuity and a lack of close attachment. While sexual dysfunctions immediately post-assault are somewhat common, the review found some women reported experiencing sexual problems years after the abuse. Specific sexual problems may include desire dysfunction (ie a lack of desire to have sex), sexual phobias, vaginismus (an involuntary contraction of vaginal muscles in response to a threat of sexual penetration), arousal dysfunction, and orgasmic dysfunction. Davis and Petretic-Jackson further reported that child sexual abuse has prolonged ripple effects not only on the victims but also on loved ones, exerting a detrimental effect on intimate adult relationships.

In summary, while it is clear that the effects of child sexual assault can be devastating on victims, there is also considerable diversity of response among victims and it is possible that the protective effects of childhood resiliency may have been underestimated in the clinical literature.

1.3 Adolescents as perpetrators of child sexual assault

During the 1980s, it also became increasingly clear that adolescents were responsible for a significant proportion of the sexual abuse of children. Davis and Leitenberg (1987) found that juveniles were also responsible for between 30 per cent and 50 per cent of all sexual offences involving a child victim. These figures are consistent with other more recent estimates (Bourke & Donohue, 1996; Boyd, Hagan & Cho, 1999; Righthand & Welch, 2001).

Figures from NSW Health on initial presentations to Sexual Assault Services indicate that in 1995-96, a male child under the age of 16 was the assailant in 16.2 per cent of cases of child sexual assault (Spangaro, 2001). Male adults who are known to the victim are the most common assailants in cases of child sexual assault in NSW. For three out of the last four reporting years, however, the *second* most common assailant for girls was a male child under the age of 16. Similarly, in recent reporting years, the second most common assailant for boys was a male child under the age of 16, except for 1994/95, when a male child under the age of 16 was the *most common* assailant (27.1 per cent of cases).

It would appear therefore that adolescents are responsible for a significant proportion of the sexual assaults of children, particularly young boys. It is also clear that the sexual assault of children is costly to the community, financially, as well as emotionally. The harm caused by the sexual assaults of adolescents may be just as severe than the harm caused by adults. In at least one study of intra-familial sexual assault it was found that the harm was the same regardless of whether the perpetrator was an older sibling or a father (Cyr, Wright, McDuff & Perron, 2002). In another study of sexual victimisation of children, the young aggressors were found to engage in significantly more penetrative acts than adult aggressors (Allard-Dansereau, Haley, Hamane & Bernard-Bonnin, 1997).

It is also clear that child maltreatment (including child sexual assault) can lead to juvenile offending. A recent large scale study of maltreated children in Queensland found a link between child maltreatment and later juvenile offending in their sample of 41,700 children born in Queensland in 1983 (Stewart, Dennison & Waterson, 2002). The study found that maltreated children were more likely to offend in adolescence than children who were not maltreated and that the type and frequency of the maltreatment, as well as the age at which it occurred appeared to influence the likelihood of future offending. Physical abuse and neglect, however, were more predictive of adolescent offending than was sexual abuse, consistent with the limited previous research.

The fact remains, however, that preventing the sexual abuse of children at either the primary or the tertiary level has the potential to prevent many future victims in the present, as well as future, generations. Given that adolescence is a period of development and change, there are clear and compelling reasons to disrupt sexually abusive behaviours during adolescence before they become entrenched as part of an adult personality.

1.4 Research on adolescent sexual offending

The literature on adolescent sexual offending and the practice of assessment and intervention with this population has been heavily influenced by the literature and practice of assessment and intervention with adult sexual offenders, which in turn has been influenced by a legislative, rather than a scientific, agenda. The clinical practice of assessing and working with young people who have committed sexual offences is therefore in its infancy and has been heavily (and unhelpfully) influenced by the work with adult sex offenders.

1.5 Sexual/social deviance

Perhaps the most unhelpful influence has been the construct of *sexual deviance*. The clinical literature on adult sexual offending has been guided by the construct of sexual deviance, which in turn has generally been operationalised as either pedophilia or some other form of paraphilia. Intervention and treatment for sexual offenders has therefore traditionally followed a psychiatric or clinical psychology approach, focusing on altering the intra-psychic processes of the individual, with little or no regard to any environmental or situational factors that may have been associated with the commission of the offence.

More recently, however, it has been noted in the literature that both adult and adolescent sex offenders are more likely to have a previous *non*-sexual offence than a sexual offence, as well as being several times more likely to recidivate *non*-sexually than sexually (Nisbet, Wilson & Smallbone, 2004). It has therefore also been suggested that (adolescent and adult) sex offenders may in fact be more similar to other generalist offenders, than to people who exhibit socially tolerated sexual deviance (ie non-illegal paraphilias) (Smallbone, in press). Such a paradigm shift would have important implications for intervention, such as a greater emphasis being placed on intervention strategies that have already been shown to be successful with the broader delinquent population as well as targeting a range of problem behaviours instead of having a narrow focus on sexual behaviour.

1.6 Sex offenders or adolescent offenders?

As the field of sex offender treatment began to consider adolescent sex offenders during the 1980s, the emphasis was firmly on the fact that they were sex offenders, rather than adolescents. Given the relatively large volume of literature on developmental psychology, personality development and even general juvenile delinquency (eg Loeber & Farrington, 1998), it is perhaps surprising that this should be the case. It is also a situation that has not gone without comment in the field.

In an article entitled "*Don't shoot, we're your children*": *Have we gone too far in our response to adolescent sexual abusers and children with sexual behavior problems?*, Chaffin and Bonner, (1998) reviewed the development of interventions for adolescent sex offenders in the US over the previous fifteen years. They acknowledged that fifteen years previously in the absence of true experimental research and uniquely designed treatment programs it may have been necessary to borrow treatment models used with other populations. They were very critical, however, that at the time of writing it was commonplace for children as young as thirteen to be in treatment based on models and assumptions adapted from programs developed for incarcerated adult pedophiles.

Although some authors have previously argued that the different developmental capacities of adolescents need to be taken into account in providing treatment for these perpetrators of sexual abuse (Harnett & Misch, 1993), it is only in relatively recent times that the efficacy of modelling juvenile sex offender programs on adult sex offender programs has started to be questioned in the literature (Freeman-Longo, 2003; Hunter & Lexier, 1998; Swenson, Henggeler, Schoenwald, Kaufman & Randall, 1998). The field is therefore at somewhat of a cross-roads in terms of the increasing call to resist the "trickle down phenomenon" of keeping young people who have committed sex offences in treatment longer than necessary using adult-based models of intervention. There is now an increasing emphasis on developing valid and reliable adolescent-focused typologies, assessment methods and interventions (Freeman-Longo, 2003).

1.7 Current approaches to treating adolescents who have sexually offended

The number of specific treatment programs for young sexual offenders in the US increased from one in 1980 to approximately 1000 by 1995 (Freeman-Longo, Bird, Stevenson & Fiske, 1995). The first treatment program in Australia was the Trek program, funded by the NSW Department of Health in 1990 and based on the Central Coast of NSW. The NSW Department of Juvenile Justice established a program in 1991 and a recent publication identified 14 current programs operating in Australia for young people with sexual behaviour problems/offences (Flanagan, 2003).

One of the most influential documents relating to treatment programs for adolescents who have sexually offended is the Revised Report from the National Task Force on Juvenile Sexual Offending, developed by the US National Adolescent Perpetrator Network (NAPN) (1993). This report was a revision of the Preliminary Report from the National Task Force on Juvenile Sexual Offending, which was completed in 1988 and involved input from representatives from 800 programs across the US. The 1993 report is also currently undergoing revision.

This report formulated 387 assumptions about the nature of sexual offending perpetrated by adolescents. The fact that it is based on assumptions, rather than empirical research, has recently resulted in heavy criticism (Zimring, 2004). Among the assumptions are that sexually abusive youth require a specialised offence-specific treatment approach (112), that treatment should be court-ordered (37 & 110) and that treatment usually requires a minimum of 12-24 months (172). It also provides a “partial” list of 34 topics that should be addressed in treatment.

One of the authors of the report, Gail Ryan, has also identified an “evolving consensus” among providers of treatment for sexually abusive youth (Ryan, 1999). This consensus includes using the sexual abuse cycle as a framework for conceptualising the abusive pattern and the need to address the offending by targeting the pattern of fantasy, planning, victim selection, grooming, access and opportunity, sexual arousal and reinforcement, distortions and rationalizations, decision making, secrecy and denial. Ryan notes the challenge involved in being able to “combine the specific and the holistic into comprehensive models that can differentially diagnose and treat offenders while respecting the unique developmental and contextual realities of each individual” (Ryan, 1999 p. 427).

The majority of the literature on programs for adolescents who have sexually offended makes reference to treatment involving the offence cycle or relapse prevention, however there are a few articles that describe other approaches such as art therapy, meditation and yoga or social skills training as an adjunct to mainstream approaches (Derezotes, 2000; Gerber, 1994; Graves, Openshaw & Adams, 1992), as well as other therapeutic approaches such as Reality Therapy, Addictions-based therapies and a Self-Psychological Perspective (Chorn & Parekh, 1997; Henry & Cashwell, 1998; Lundrigan, 2004). Additionally, various types of pharmacological treatments may be used as an adjunct to therapy. These include psychotropic medications such as stimulants or selective serotonin reuptake inhibitors (SSRIs), as well as antiandrogen medication which reduces or blocks the action of testosterone, thus reducing or eliminating the sex drive. (see Rich, 2003, for a review of pharmacological treatment).

A final approach that is increasingly being used in treatment with this population is Multisystemic Therapy (MST) (Henggeler, Schoenwald, Borduin, Rowland & Cunningham, 1998). Although not specifically developed for this population, MST has been shown to be effective with adolescents who have sexually offended (Borduin, Henggeler, Blaske & Stein, 1990; Borduin & Schaeffer, 2001). There is also substantial outcome research demonstrating its effectiveness with delinquent and anti-social youth in general (Borduin, 1999; Borduin et al., 1995; Curtis, Ronan & Borduin, 2004; Henggeler, Cunningham, Pickrel, Schoenwald & Brondino, 1996; Henggeler et al., 1998). A short review of MST outcome studies with delinquent/antisocial youth is provided in Appendix 4.

1.8 Review aims & methodology

The objective of this review was to inform an economic (cost benefit) analysis of different service delivery options for adolescents who sexually offend. In order to undertake this analysis, a short literature review was needed to establish the state of current research evidence in models of service provision to young sex offenders, their families and other relevant parties. The target group was young people aged 10 - 17 years who are not convicted of an offence and do not qualify for services through the NSW Department of Juvenile Justice.

Specifically, the review sought to examine the literature and provide:

- Analysis of the impacts of programs and interventions to support adolescents who sexually offend. The interventions were to include but not be limited to:
 - residential services
 - private practitioners
 - drop-in services, etc
 - those using a variety of treatment methods with varying levels of intensity and duration of services.
- The impacts to be examined were to include:
 - the offenders
 - their families (including their siblings)
 - their victims
 - other relevant parties.
- Commentary on the short and long-term impacts of sexual abuse on child victims caused by adolescent offenders specifically in:
 - general and mental health
 - substance abuse
 - premature death/suicide
 - educational outcomes.
- Impacts on offenders in:
 - education attainment
 - workforce participation
 - receipt of government assistance
 - Criminal Justice System outcomes.
- Provision of a reliable range of expected reductions in rates of recidivism and other outcome measures from which a sensitivity analysis in the cost benefit analysis could be tested.
- A focus on methodologically robust evaluations (ie experimentally designed longitudinal study, large sample size, lengthy follow up period, etc).
- Findings about qualitative impacts of different programs where the methodology used was sufficiently robust and the findings informative.

In order to conduct this review, the NSW Department of Community Services provided the authors with a collection of resources on the topic, including a number of articles and reports as well as the results of previous literature searches. In all, there were 89 full-text articles and reports and a further 32 abstract-only references supplied to the authors. The authors combined these references with a

further 197 resources on the topic already held at the Griffith Adolescent Forensic Assessment and Treatment Centre (GAFATC), Griffith University, Queensland. These resources included books, reports and journal articles, as well as articles in press by the authors and a number of unpublished doctoral dissertations.

In mid-May 2005, a further literature search was conducted to identify any other recently published materials. The search terms included “treatment AND juvenile sex offenders”, “treatment AND adolescent sex offenders” and “sex offender treatment” and the databases searched included *Psych info*, *Proquest* and *Swetswise*. Articles on adult sex offenders or adolescent non-sex offenders were only included in the review if they touched on issues relevant to the review.

The references were then sorted into the following categories: a) commentaries on issues related to treatment with this population, b) program descriptions, c) previous reviews of the literature, d) treatment outcome studies, e) recidivism studies that included treatment as a predictor variable, f) meta-analytic reviews of treatment outcome studies, and g) selected studies on treatment with adolescent non-sexual offenders.

The emphasis of this review was on articles or reports published in peer-reviewed journals or edited books. Electronic resources were only included if they were posted on the websites of recognised government departments or institutions mentioned in the literature.

In order to make sense of the treatment outcome literature, studies were separated on the basis of the outcome measures adopted. The studies identified therefore fell into two broad categories: those that focused on a particular treatment target (eg reduction in deviant arousal or increase in social skills) and those that focused on measures of recidivism. The five levels of the Maryland Scientific Methods Scale (SMS) (Farrington, 2003) were adapted to rate the methodological quality of the first category of studies. The lowest level, Level 1, involves a correlation between a prevention program and a measure of crime or functioning at one point in time. Level 2 incorporates a measure before and after the program with no control condition. Level 3 involves measures before and after the program in experimental and control conditions. Level 4 includes pre-post measures in experimental and control conditions, after controlling for other variables that may influence the outcome. The highest level, Level 5, consists of random assignment to experimental and control conditions. These ratings were used for studies including psychological measures as they may be administered both pre- and post-treatment.

Due to the fact that recidivism is a post-treatment measure, a second set of ratings were created for these studies. Level 1 studies included one group (treatment group only), Level 2 studies involved two groups (treatment and comparison groups) who were not subject to random assignment, and Level 3 included random assignment to either an experimental and comparison group.

It should be noted that comparisons of methodological quality should not be made between studies that utilised psychological or other pre-post measures (eg deviant arousal) and studies that only used recidivism as an outcome measure.

2. The treatment literature

The treatment literature on adolescents who have sexually offended is, like the subject matter, extremely heterogenous. Just as the young people themselves fall at different places along the continuum of sexual aggression, so too are different treatment programs positioned at different levels of response. Some programs are based in outpatient mental health settings or charities and assist voluntary clients and their families. Some are community-based programs attached to the juvenile justice system and see adjudicated clients who are often estranged from their families. Other programs are based in secure residential mental health facilities, while others are based in juvenile justice custodial facilities. The majority of recidivism outcome studies have emerged from programs within juvenile justice settings, and mainly within North America.

There are numerous articles describing various programs or treatment approaches, fewer studies of treatment outcomes, and fewer still treatment outcome studies using comparison groups. This due to the fact that very few agencies have believed their responsibilities extend beyond funding treatment, if indeed they can be persuaded to do even that (Marshall & Fernandez, 2004).

The present review will limit its scope to programs for young male sex offenders in mainstream programs, although it acknowledges that there is a small but growing body of literature for other special groups such as females (Fehrenbach & Monastersky, 1988; Knopp & Lackey, 1987; Matthews, Hunter & Vux, 1997) and young sexual abusers with developmental disabilities (Lane & Lobanov-Rotovsky, 1997; Lund, 1992; O'Callaghan, 2004). The present review also acknowledges the limitation of confining its scope to studies published in the English-language literature.

2.1 Previous reviews of the treatment literature

In a recent review of the professional literature on juveniles who have sexually offended, Righthand and Welch (2001) noted both the proliferation of programs specifically designed for this population as well as the lack of systematic evaluation of these programs. In their review they noted seven common target areas of treatment: impaired social relationships, empathy deficits, cognitive distortions, deviant sexual arousal, problematic management of emotions, impulsive/antisocial behaviours and consequences of a personal history of child maltreatment. They also identified 22 different modes of treatment that are commonly used to address one or more of these treatment targets, and pointed out that some of the treatment targets may not be areas of need unique to young people who have sexually offended. They also drew attention to the fact that there is a "wide range of interventions with more of an empirical basis, particularly within the juvenile justice field (such as MST), that may be effective" (p. 57).

Brown and Kolko (1998) also reviewed treatment efficacy with this population. They underlined the economic significance of providing treatment to young people who had sexually offended by citing studies that showed that a large proportion of adult sex offenders reported the onset of their offending behaviour before they were 18 years old. They also cited figures suggesting that the national average cost in the US in 1990 of incarcerating an adult sex offender was approximately \$24,000 per year. Given there were reportedly over 85,000 adult sex offenders incarcerated in prisons in the US in 1990, they estimated the cost to be over \$2 billion and suggested that effective treatment for adolescent offenders had the potential to conserve federal funding in this area. They also cited other sources that suggested 80 per cent of women seeking out-patient mental health services in the US (for a variety of reasons) reported that they were sexually abused at some point during their life and that the estimated cost-saving of one fewer victim-offender pair to be \$189,949.

Despite the potential to substantially reduce costs in this area, Brown and Kolko also noted that there were few empirical studies designed to evaluate structured treatment programs for this population and that most of these were methodologically weak.

As an example, they reviewed a number of treatment programs in the US, which were implemented during the 1980s and were based on adult interventions. These programs used a variety of strategies including cognitive restructuring, sex education, values clarification, relapse prevention and verbal satiation. Verbal satiation was described as a technique where the client repeatedly verbalises their deviant thoughts until they are satiated with the previously arousing stimuli. Treatment outcome was

measured by decreases in physiological arousal to deviant stimuli. Brown and Kolko concluded that the high attrition rate of clients from the program, small sample size, mixed results and the sole outcome measure being physiological arousal (rather than recidivism) meant that the value of verbal satiation remained limited.

They also raised an important point in reviewing various clinical trials; the question of *efficacy* versus *effectiveness*. They observed that much of the literature consists of either evaluations of treatment protocols in mental health settings, such as the treatment described above, or descriptions of overall programs within various services. While the first category of literature may report on the efficacy of treatment, whether or not it produces the desired clinical effects, the second category of literature is more concerned with whether or not treatment works in the real world. Does it result in lower rates of recidivism, compared to other sorts of treatment or no treatment?

Brown and Kolko went on to make a number of practical recommendations regarding the clarification of a number of fundamental questions such as: who are we treating (highlighting the importance of developing typologies and clarifying etiologies), where are we conducting treatment (juvenile justice versus mental health), how are we conducting treatment (adult models, individual or multisystem) and how are we evaluating our efficacy/effectiveness (to what extent is intervention generalisable from treatment setting to the community). Despite the obvious importance of these questions, this approach seems yet to make a significant impact on the literature.

Bourke and Donohue (1996) reviewed the literature on both the assessment and treatment of “Juvenile Sex Offenders” (JSOs). They reviewed a number of treatments designed to reduce deviant arousal, such as covert sensitisation, imaginal sensitisation and satiation training, as well as psychopharmacological treatment, relapse prevention, group therapy, social skills training, sex education, insight-oriented therapies and multisystemic therapy. They concluded that:

Few studies have evaluated the clinical utility of interventions for use with JSOs, and JSO interventions are largely extrapolations from the adult literature. Insight-oriented therapies have not demonstrated efficacy with juvenile sex offenders, and there is a strong possibility that pharmacological treatment (eg anti-androgens) could cause detrimental changes in the physiological development of adolescents. Preliminary findings suggest that the most promising interventions may be a combination of behavioral, psychoeducational, and supportive therapies, with an emphasis on family counseling. If the behaviors of JSOs are severe, and motivation is high, the use of satiation procedures may be appropriate, although ethical restraints exist. (p. 64)

As can be seen above, the last 15 years has seen a proliferation of treatment programs for young people who have sexually offended. They operate in a range of settings but share many common treatment themes. Although early programs were heavily influenced by adult treatment programs, there is an increasing emphasis on working with families and developing an alternate treatment mandate to a court order.

3. Treatment outcome studies

3.1 A note on methodology

There are a number of significant challenges to overcome in conducting outcome evaluation studies in this field, which go some way in explaining the often-lamented state of the literature on treatment effectiveness.

First, there is the heterogeneity of the population, as well as the heterogeneity of the treatment approaches themselves. A number of different programs target different treatment objectives among different populations using different strategies. In addition, as mentioned previously, few programs are funded to conduct research as well as provide treatment.

Second, there is the challenge of making comparisons. Because it is unlikely that any jurisdiction would be prepared to follow a group of untreated offenders for a long period without intervention, it is impossible to determine the expected rate at which untreated adolescents may sexually recidivate. Similarly, there are obvious ethical difficulties with randomly assigning young people to either a treatment or a no-treatment condition, even when the no-treatment condition is a wait-list control group.

Third, most treatment outcome studies use recidivism as a dependent variable. Recidivism is a measure of re-offending. It is sometimes defined as another conviction for a sex offence, sometimes as a parole violation on a sex offence order and sometimes as further charges for sexual offences. Not only is this a very conservative estimate of actual re-offending (however recidivism is defined), it is also severely limited in jurisdictions such as the US where effective national tracking systems are lacking. A young person may move interstate post-treatment and re-offend, yet they are unlikely to come to the attention of the original state-based law enforcement agencies who are tasked with conducting the post-treatment follow-up search of their records. Although the majority of published recidivism studies (both adult and adolescent) originate in America, some researchers have concluded that for the reasons set out above satisfactory treatment evaluations cannot be done in jurisdictions such as the US (Marshall & Fernandez, 2004).

Fourth, there are a number of potentially confounding variables that are difficult to control in outcome studies. Smith and Monastersky (1986), for example, found that very few of their subjects rated as “high risk” did, in fact, re-offend. They offered the quite plausible explanation that being identified as a high-risk offender was likely to result in an increase in supervision and monitoring by the authorities, thus resulting in a decrease in the opportunities to re-offend.

Another potentially confounding variable is the effect of age and maturation. It is well established in the general criminological literature that young people’s involvement in the criminal justice system peaks during late adolescence and thereafter rapidly declines (Moffitt, 1997). This is a robust finding, regardless of any treatment intervention. The age distribution for sexual offending is markedly bimodal, with a peak at age 14 and then a decline until another peak in the late 30s (Hanson, 2002). It would therefore appear that even in the absence of treatment, the likelihood of sexual offending among adolescents reaches at peak at age 14 and then declines.

Age is related to decreases in the reporting of a number of behavioural problems on a variety of standard psychometrics used with adolescents (Bourgon, 2003). It is therefore difficult even in treatment efficacy studies to partial out the variance attributed to treatment effects, from the normal effects of aging and maturation.

Finally, there are a number of statistical limitations on detecting statistically significant treatment effects imposed by the known low base-rates of recidivism among sex offenders (Marshall & Fernandez, 2004). For example, Nisbet, Wilson and Smallbone (2004) followed up into adulthood 292 young people who had committed sex offences in NSW and found a recidivism rate of just nine per cent over an average of seven years. It was impossible to determine what proportion of these young people received treatment, but it would be fair to say that few, if any, had received treatment that would currently be considered “best practice”. If the recidivism rate of this group was just nine per cent, it does not leave much room for treatment to reduce recidivism rates to a level that would be significantly lower than an untreated comparison group. When dealing with very low base rates, it is

necessary to have very large numbers of treated graduates who have been at risk for a lengthy period of time in order to have the necessary statistical power to demonstrate effectiveness even when treatment is, in fact, effective (Barbaree, 1997, cited in Marshall & Fernandez, 2004).

Studies examining the relationship between treatment and recidivism in this population can be grouped into two broad categories on the basis of research aims: (1) studies that are explicitly focused on the evaluation of treatment programs; and (2) studies that are aimed towards examining predictors of recidivism and include treatment-related variables.

3.2 Treatment program studies

A total of 23 treatment outcome studies were included in the review. All of these studies were published after 1990. Of the six studies that utilised pre-post treatment outcome measures (eg cognitive distortions, deviant arousal), half of them ($n = 3$) obtained Level 2 ratings. Essentially, these studies included pre- and post-treatment measures and either had no comparison group or the comparison group consisted of measures administered to juvenile sex offenders who had not yet engaged in treatment. One study (Letourneau, Schoenwald & Sheidow, 2004) received a Level 3 rating due to a lack of random assignment while two studies received the highest rating (Level 5) due to random assignment to experimental and comparison conditions. Of the second set of studies that utilised recidivism as an outcome measure ($n = 17$), the majority ($n = 11$) received the lowest rating (Level 1) and consisted of one group that received treatment and a measurement of recidivism at post-treatment or follow-up. Five studies received a Level 2 rating as they included both experimental and comparison groups and a measure of recidivism. Only one study (Borduin et al., 1990) received the highest rating (Level 3) due to random assignment to either experimental or comparison conditions. See Appendix 1 for a complete list of studies and ratings.

3.2.1 Individually-oriented treatment approaches

As outlined above, the treatment of young people who have sexually offended has been heavily influenced by the treatment philosophy of adult sex offenders and initially focused upon applying cognitive-behavioural strategies to the individual with the aim of modifying cognitive distortions, reducing deviant arousal, enhancing victim empathy, identifying the sexual abuse cycle and subsequently developing relapse prevention strategies to avoid further offending.

However, there is evidence to suggest that juveniles do not respond to treatment designed primarily for adult sex offenders. McConaghy, Blaszcynski, Armstrong and Kidson (1989) compared adult sex offenders' ($n = 39$) and adolescent sex offenders' ($n = 6$) responses to treatment. All participants were randomly assigned to covert sensitisation, imaginal desensitisation (ID), medroxyprogesterone (antiandrogen medication) (M), or imaginal desensitisation plus medroxyprogesterone (ID + M).

Covert sensitisation is a cognitive therapy frequently used with adult sex offenders. It consists of subjects imagining situations in which they were stimulated to carry out a sexual offence, but before completing the offence they imagine a highly aversive scene, such as being arrested or being assaulted as a result of their offence. In this study, imaginal desensitisation was described as a process in which subjects were taught to relax and then imagine a scene in which they would be stimulated to offend. They were then required to imagine themselves walking away from the situation, while still remaining relaxed. The process of both covert sensitisation and imaginal desensitisation involved a number of sessions with repeated rehearsals.

The authors found covert sensitisation to be inferior to the other approaches, with no differences among ID, M, or ID + M. The authors noted that adolescents tended to respond worse to treatment than adults, with half of the adolescents committing further sexual offences after treatment. McConaghy et al. offered the explanation that the sexual urges of adolescents are controlled more by hormonal, rather than behavioural, mechanisms.

In a similar study, Weinrott, Riggan and Frothingham (1997) applied a three-month vicarious sensitisation (VS) treatment program to 35 juvenile child molesters as an adjunct to specialised cognitive therapy. A comparison group of 34 juvenile child molesters received only the specialised cognitive therapy. All participants were assessed using phallometric measures of deviant arousal and the Adolescent Sexual Interest Card Sort before VS, after the three-month treatment, and at three-month follow-up. Subjects in the VS condition experienced significant decreases in deviant arousal to prepubescent females when compared to the comparison group while changes in arousal to young males proved more difficult to assess due to the low baseline scores regarding this variable.

Hunter and Santos (1991) evaluated the efficacy of a residential treatment program consisting of specialised cognitive-behavioural therapy with 27 participants (15 juvenile child molesters of prepubescent females and 12 juvenile child molesters of prepubescent males). Treatment consisted of satiation (ie repetition of deviant fantasy until it no longer exerts an effect on behaviour), covert sensitisation, social skills training, assertiveness training, anger management, modification of cognitive distortions, victim empathy, and sex education. The study found treatment produced a 39.3 per cent reduction of deviant arousal to prepubescent males and a 33.5 per cent reduction of deviant arousal to prepubescent females. However, no control group was utilised in this study. Weinrott et al. (1997) and Hunter and Santos (1991) do provide some evidence for the role of behavioural techniques in reducing deviant sexual arousal in juveniles. Using deviant arousal as an outcome measure is somewhat problematic in the sense that it (falsely) assumes that juveniles commit sexual offences as a result of deviant arousal. Reductions in deviant arousal will not necessarily translate into reductions in terms of re-offending. It may also be argued that due to the higher rates of non-sexual recidivism typically found among this population, treatments directed primarily towards deviant arousal may not prevent further non-sexual offending.

3.2.2 Combination approaches

The majority of treatment outcome studies in this area have employed a range of strategies in the context of multiple therapeutic processes (eg individual therapy, group therapy, and family therapy). This makes it difficult to simply divide studies strictly on the basis of treatment content and process. The previous section primarily dealt with those studies that used behavioural techniques such as covert sensitisation with the major goal being the reduction of deviant arousal. It should be noted, however, that not all sex offenders, particularly adolescents, experience or report experiencing deviant sexual arousal patterns. This section discusses combination approaches to treatment of adolescents, that is, those treatment approaches that could be considered somewhat broader in terms of their treatment goals as well as including a wider range of therapeutic processes. Treatment may have occurred either in residential or community-based settings.

3.2.3 Residential treatment

Due to processing through the criminal justice system, some young people are sentenced to periods of detention or to residential treatment facilities. Consequently, residential or institution-based treatment programs will always have some role to play in the prevention of further offending. Bourgon and Morton-Bourgon (2004) found that residential treatment facilities were able to provide more hours of service compared to community-based treatment. Studies of residential treatment vary in terms of the outcome measures employed depending upon whether the particular study followed the juveniles after they were released. Post-release follow-up studies are able to utilise a measure of recidivism, however the remaining studies utilise self-report measures in the absence of recidivism data.

The majority of residential treatment studies have been uncontrolled trials assessing either pre-post change on self-report measures or post-only recidivism outcomes. Bremer (1992) presented self-report re-offence and program impact results for a sample of 193 young people who had participated in a residential Juvenile Sex Offender Program (JSOP). The primary treatment modality was group-based, though the program advocated family involvement as an essential treatment ingredient. The five content areas addressed included taking responsibility, life history, personal victimisation, the sexual assault cycle and victim empathy. In terms of program impact, 25 per cent of participants reported

learning relationship skills and 24 per cent reported learning how to express emotions appropriately. According to official convictions, 6 per cent of young people ($n = 12$) who had participated in the program were officially identified as sexual recidivists, while self-reports indicated an 11 per cent ($n = 18$) sexual recidivism rate.

Hagan, King and Patros (1994) obtained official recidivism data for 50 juvenile child molesters who had completed a residential treatment program. The program included components such as taking responsibility, increasing understanding of etiological factors relating to the sexual offence, identifying risk factors for further offending, victim empathy, and development of appropriate non-criminal behaviours. The primary mode of treatment was group-based. Utilising a two-year follow-up period, the study found an 8 per cent sexual recidivism rate, while 38 per cent engaged in other types of criminal offending. Interestingly, the authors reported that the sexual recidivists had engaged in similar types of offences for which they were initially referred.

Kennedy and Hume (1998) examined the recidivism rates of 114 treated young people who participated in a specialised treatment program consisting of 24 weekly group-based sessions. The content of the program included personal histories and descriptions of offences, identifying thinking patterns and fantasies leading up to offences, emotion identification and the role of emotions in offences, the sexual abuse cycle, possible reasons for the offences, development of a relapse prevention plan, sex roles, analysis of belief systems, anger management, interpersonal skills training, and the role of traumatic events in offences. They found that five (5.7 per cent) participants re-offended sexually while 22 (25 per cent) re-offended non-sexually.

Shapiro, Welker and Pierce (2001) evaluated the effectiveness of an 18-month residential treatment program with a sample of 26 young people. Treatment consisted of one individual session and two group sessions each week. A cognitive-behavioural model was utilised which included “(1) breaking through denial of responsibility for the abusive behaviour, (2) correcting dysfunctional beliefs about abuse, (3) recognising the abuse cycle, (4) increasing empathy for victims, (5) providing education about human sexuality, (6) increasing personal awareness of feelings, (7) training in social skills, (8) training in anger control, (9) relapse prevention, (10) working through abuse histories, if present, and (11) working through the mental health issues particular to each youth (individual therapy only).” (p. 4). Using a one-year follow-up period and self- and staff-report, Shapiro et al. found that 8 per cent of the sample committed a sexually aggressive act while 27 per cent had committed a non-sexual aggressive act. Shapiro et al. further noted that most of the improvement on other self report measures (eg cognitive distortions) occurred later in the follow-up period.

In an evaluation of a residential treatment program, Eastman (2004) compared three groups of young people: pre-treatment ($n = 40$), post-treatment ($n = 40$) and those who had been released into the community for between six and 18 months ($n = 20$). The goals of treatment were to increase sexual knowledge, reduce cognitive distortions regarding sex offending, enhance favourable sexual attitudes and empathy, and increase offenders’ self-esteem. While no recidivism outcome measure was utilised, Eastman found that the program was successful in reducing cognitive distortions, increasing sexual knowledge and prosocial sexual attitudes, and self-esteem.

In the only residential study to have a concurrent comparison group of juvenile non-sexual offenders who underwent the same treatment, Brannon and Troyer (1991) examined the recidivism rates of 53 sex offender and 57 non-sexual offenders released from a residential treatment facility. Treatment was conducted in the context of peer groups and emphasised taking personal responsibility, problem-solving skills, community service projects, and a focus on correcting past life mistakes. The average length of treatment was 12.4 months for the sex offender group and 7.9 months for the non-sexual offenders. The authors found that 1.9 per cent ($n = 1$) of the sex offender group committed further sexual offences compared to none of the non-sexual offenders. A 32.1 per cent non-sexual recidivism rate was found for the sex offender group compared to 15.8 per cent of the non-sexual offenders.

Only one study has directly compared the efficacy of residential and community-based treatment. Kahn and Chambers (1991) evaluated the efficacy of “Specialised Sexual Deviancy Therapy” in a sample of 221 young people. Treatment consisted of “confrontation, sex education, anger management,

social skills training, development of victim empathy, and, occasionally, behavioral techniques to alter deviant arousal” (p. 338). These techniques were employed in the context of combinations of individual, group and family therapy, while treatment sessions ranged from less than 10 to more than 110 (median = 27 sessions). The authors evaluated a total of 10 treatment programs, two of which were institution-based. Of the 221 young people, around 50 per cent committed further offences while 7.5 per cent re-offended sexually. The authors found no difference in recidivism rates between those treated in institutions versus those treated in the community.

Most evaluations of residential treatment have consisted of uncontrolled trials without a comparison group of non-treated offenders. Therefore, interpretation of the impact of treatment on recidivism rates is limited as it is unknown whether re-offences would have occurred regardless of treatment. Yet, residential programs have been shown to have some impact on self-report measures of variables associated with behavioural change due to intervention. For instance, it appears as though residential treatment programs may be effective at reducing cognitive distortions (Shapiro et al., 2001) and enhancing emotion management skills (Bremer, 1992). Notwithstanding possible social desirability effects, the only study to include a comparison group of non-treated sex offenders (Eastman, 2004) found young people who were treated in residential settings experienced greater reductions in cognitive distortions and increases in sexual knowledge and pro-social sexual attitudes.

3.2.4 Community-based treatment

Many authors advocate for the treatment of juveniles within the community (eg Hunter, Gilbertson, Vedros & Morton, 2004). In comparison to residential programs, community-based treatments typically involve similar treatment goals yet possess more flexibility in terms of the format through which these may be accomplished. For instance, community-based treatment programs typically allow for greater involvement of families in the treatment process. A greater number of controlled trials, comparing treatment to comparison group(s), may be found in the literature on community-based treatment programs.

Based upon the adult sex offender treatment literature, Becker (1990) evaluated the efficacy of a community-based treatment program for 205 young people. Treatment included verbal satiation, cognitive restructuring, covert sensitisation, social skills training, sex education, and relapse prevention. Post-treatment one year follow-up interviews conducted with 52 participants who had completed treatment revealed that five had committed further sexual offences.

Graves, Openshaw and Adams (1992) evaluated the effectiveness of a social skills training program as an adjunct to therapeutic intervention. The study used a pre-post test design with 30 participants randomly assigned to either an experimental group (n = 18) receiving social skills training or a control group receiving therapeutic intervention without social skills training (n = 12). Outcome measures included a battery of self-report instruments assessing domains relevant to social skills. In terms of behavioural outcomes, the experimental group scored significantly lower than the control group on the delinquent, aggressive and overall Externalising scales of the Child Behaviour Checklist.

Mazur and Michael (1992) examined the efficacy of a 16-week family-based treatment program for a small sample of 10 young people. Seventy per cent of this sample had offended against related victims. Treatment consisted of four phases: orientation, human sexuality interaction education, relapse prevention, and transition to follow-up. Participants were divided into two groups, one group of three 13 year olds and another group of seven 14 to 17 year olds, and both parents and adolescents participated in all treatment phases. At six month follow-up, eight adolescents reported being presented with an opportunity to relapse yet neither parents nor adolescents reported sexual re-offending.

Sheridan et al. (1998) reported on the results of a pilot evaluation of the Northside Inter-Agency Project (NIAP), a treatment program for young people that consisted of primarily group-based cognitive-behaviour therapy supplemented with parental supportive counselling and individual therapy where necessary. The content of treatment was based upon the sexual abuse cycle and Finkelhor’s (1984) four-factor theory of sexual offending. Treatment lasted from nine to 12 months with monthly aftercare sessions for treatment completers. Twenty-two participants, aged 14 to 21

years, participated in the study. Around three quarters of these participants had offended against victims in their family and 45 per cent had continued to have daily contact with victims during and after treatment. Using a confidential questionnaire, Sheridan et al. found that none of the participants self-reported engaging in sexual re-offending.

Schmidt and Heinz (1999) evaluated the effectiveness of a community-based treatment program for 33 young people. The program targeted adolescents aged 12 to 15 who were legally mandated to attend treatment. The treatment was based upon CBT principles and utilised group-based, individual, and family therapy modalities. In addition, monthly case conferences were held among youth, parents, and treatment providers in order to continually monitor and update treatment plans. The study found a three per cent sexual recidivism rate and a 37 per cent non-sexual recidivism rate among youth followed up for an average of 28 months.

Bourgon and Morton-Bourgon (2004) conducted a multi-site investigation of treatment efficacy for 127 young people involved with 15 different agencies. Seventy-nine participants had been assessed before treatment, 29 were assessed within the first year of treatment, 17 were assessed one year after treatment and two were assessed at the end of treatment. The majority of participants had been treated in the community with 12 per cent treated in residential facilities. Group-based treatment constituted the primary treatment modality followed by individual counselling (38 per cent of participants). Relatively few participants in this study were engaged in family therapy. The most common treatment targets were denial/minimisation, communication skills, self-esteem, life skills, victim empathy, sex education, relapse cycles, sexual fantasies, cognitive distortions, and the juveniles' own abusive experiences. The study found that scores on a risk assessment tool – the Estimate of Risk of Adolescent Sexual Offence Recidivism (ERASOR) (Worling & Curwen, 2001) – significantly decreased as treatment progressed from intake to exit. In addition, scores on the Sexual History Form were suggestive of juveniles reporting more typically consenting sexual experiences over the course of treatment. Treatment was found to be associated with an increase in “non-offending” fantasies yet no decrease in “offending” fantasies. No recidivism outcome measures were utilised.

Lab, Shields and Schondel (1993) examined the effectiveness of a court-based specialised treatment program for young people. Their Sex Offender Treatment (SOT) program consisted of 20 group-based meetings, each one lasting from 2.5 to three hours. The content of the meetings consisted of “sexuality education and attitudes, victim awareness and empathy, development of prevention plans and coping skills, recognition of personal feelings, anger management, and acceptance of the consequences for one’s actions.” (p. 546). Group-based treatment was supplemented by individual and family sessions where necessary. Lab et al. assigned subjects to either a treatment group (n = 46) or a no-treatment control group (n = 109) on the basis of individual risk scores so that low-to-medium risk subjects received treatment and high-risk subjects were referred to other community agencies. Two measures of recidivism were utilised: juvenile court contact for any sexual re-offences and contact for any types of re-offences. They found no significant differences between the treatment and control groups in terms of sexual recidivism (2.2 per cent vs. 3.7 per cent) or any type of recidivism (24 per cent vs. 18 per cent). Moreover, Lab et al. (1993) noted a non-significant trend for an increased likelihood of recidivism among SOT clients.

Worling and Curwen (2000) investigated the efficacy of community-based treatment for young people. This study examined recidivism rates among four groups of participants: (1) those who participated in at least 12 months of treatment (n = 58); (2) those who received an assessment but no treatment (n = 46); (3) those who refused to participate in treatment (n = 17); and (4) those who dropped out of treatment prior to 12 months (n = 27). The treatment modality utilised in this study was the Sexual Abuse, Family Education and Treatment (SAFE-T) program. The treatment involved concurrent individual, group, and family-based processes while “treatment goals include the enhancement of social skills, self-esteem, body image, appropriate anger expression, trust, intimacy” (p. 968). The authors adopted the treatment philosophy that the greatest clinical change would result from the inclusion of the adolescents’ families in treatment.

While no significant differences between the three control groups were found in terms of recidivism, significant differences emerged between the treatment and comparison groups on all recidivism

measures. Specifically, the sexual recidivism rate for the comparison group (18 per cent) was significantly greater than that of the treatment group (5 per cent). The treatment group also had a significantly lower violent non-sexual recidivism rate (19 per cent) compared to the comparison group (32 per cent) as well as a significantly lower rate of non-violent non-sexual recidivism (21 per cent vs. 50 per cent).

Seabloom et al. (2003) conducted a study investigating the efficacy of a sexuality-positive Personal Social Awareness (P/SA) treatment program. Participants were involved in weekly three-hour group-based sessions, biweekly 1-hour individual sessions, biweekly two-hour family-based sessions, bimonthly 27-hour marathons (ie intensive group-based retreats), and two-day family education/sexuality awareness seminars once every six months. The parents further participated in weekly two-hour group sessions. The overall sample consisted of 122 participants and their families, which were divided into three groups: (1) treatment completers (n = 52); (2) treatment withdrawals (n = 52); and (3) referred elsewhere (n = 18). The study found that none of the participants who completed treatment sexually re-offended and were less likely to be reconvicted for any other type of offence when compared to the rest of the sample.

In contrast to studies on residential treatments, there are a greater number of community-based treatment evaluation studies that have attempted to meet the standards of controlled clinical trials. Three studies have utilised pre-post experimental-control group designs and examined recidivism outcomes. Two of these studies (Seabloom et al., 2003; Worling & Curwen, 2000) found that juveniles who completed treatment were significantly less likely to engage in any sort of re-offending whereas Lab et al. (1993) found no differences between treatment and comparison groups. The studies that have found significant results adopted a mixture of individual, group and family treatment modalities. Though based upon a small sample, Mazur and Michael (1992) also found that a family-based treatment approach was effective in terms of preventing further sexual offending. Taken together, the results suggest that treatment occurring in a group-based context with family involvement in treatment appears to be associated with greater treatment effects in terms of preventing further offending. However, it should be noted that none of these studies utilised random assignment to treatment or comparison groups. It is therefore not possible to completely attribute any positive effects to the treatment as opposed to possible pre-existing differences between the groups.

3.2.5 Multisystemic Therapy (MST)

Perhaps the treatment approach that has been subjected to the most rigorous empirical testing is that of multisystemic therapy (MST), although, as noted in the introduction, the majority of studies using MST have not been specifically with populations of adolescent sex offenders. In contrast to the treatment approaches described in the previous sections, MST explicitly adopts a systemic view of the individual while attempting to prevent both sexual and non-sexual offending.

Using a small sample of adolescents who had sexually offended, Borduin, Henggeler, Blaske and Stein (1990) compared the efficacy of multisystemic therapy (MST; n = 8) to individual therapy (IT; n = 8) over a three-year follow-up period. They found that subjects in the MST group had significantly lower sexual recidivism rates (12.5 per cent vs. 75 per cent) and sexually re-offended at a significantly lower frequency compared to subjects receiving IT. No significant differences were noted in terms of non-sexual recidivism. In another study, Borduin, Schaeffer, and Heiblum (2003) used a pre-post experimental-control group design to evaluate the efficacy of MST versus usual service delivery in a sample of 48 young people. Half of the sample was classified as being sexually aggressive and the remainder as committing non-aggressive sexual offences. When compared to usual service delivery, MST resulted in significantly greater reductions in behaviour problems and self-reported recidivism. This study, though not subjected to peer review, did have the advantage of using random assignment to groups. A large scale, multi-site effectiveness trial using MST with juvenile sex offenders is currently underway in the US and is scheduled for completion in February 2008.

Hunter, Gilbertson, Vedros and Morton (2004) reported on the effects of two treatment programs for juvenile sex offenders that could be placed under the MST umbrella. The Wraparound Milwaukee

Program is a systemic approach to treating adjudicated youth with severe emotional and behavioural problems, including sex offending. The program has been in existence since 1995 and was developed from a six year, \$15 million federal grant that the Milwaukee County received from the Centre for Mental Health Services in Washington, DC. The program was designed to reduce the use of institutional-based care such as residential treatment centres and inpatient psychiatric hospitals while providing more services in the community and in the child's home.

Treatment involves an offence-specific multisystemic approach including a focus on enhancing post-adjudication community-based resources for young people and parental supervision of youth. Using a one-year follow-up period, Hunter et al. (2004) reported the sexual recidivism and non-sexual recidivism rates to be two per cent and 23 per cent, respectively. However, no comparison group of untreated offenders was utilised.

The second program reviewed by Hunter et al. (2004) was the Norfolk Juvenile Sex Offender Program. The treatment philosophy represents a mixture of social-ecological and offence-specific models and integrates individual therapy, family therapy, in-home services, a sexual offender treatment group, parents' or caretakers' group, and relapse prevention. Of the 25 youth who had participated in the program, none had sexually re-offended and 20 per cent had committed further non-sexual offences in a one to eight month follow-up period. A qualitative examination of the success of the study was conducted by interviewing key legal and community stakeholders. These findings showed the program had enhanced collaboration between legal and clinical communities, increased knowledge of sex offender and victim issues, and helped to develop the skills of parole and probation personnel.

MST has also been applied to children and adolescents referred to mental health agencies for sexual behaviour problems. Letourneau, Schoenwald and Sheidow (2004) examined the differential impact of MST on three groups of non-adjudicated children and adolescents: those with a high level of sexual behaviour problems (high SBP; n = 166), those with few sexual behaviour problems (low SBP; n = 413) and those with no sexual behaviour problems (no SBP; n = 943). Assignment to these groups was based upon scores on the Sex Problems scale of the Child Behaviour Checklist. Assessment of treatment outcome using the CBCL found that those in the high SBP group improved at a significantly greater rate (ie scores on the CBCL Sex Problems scale decreased) when compared to the low SBP group. This study shows that MST can be effective at reducing sexual behaviour problems among children and adolescents who may not have been legally adjudicated for sex offending behaviour.

3.2.6 Conclusions based on the treatment outcome literature

A number of tentative conclusions can be drawn from an examination of the treatment outcome literature. First, behavioural techniques such as covert and vicarious sensitisation have been found to significantly reduce deviant sexual arousal in juveniles. However, it should be noted that not all juveniles will experience or report deviant arousal patterns and the effects of arousal reduction on actual re-offending remain unknown. Second, it appears as though residential treatment programs may have an impact on behavioural variables associated with sexual offending, such as cognitive distortions, sexual knowledge and sexual attitudes supportive of sex offending. Due to a lack of controlled trials, the extent to which such treatment effects prevent further sexual or non-sexual offending are unclear. Third, community-based treatments have received more empirical attention and been subjected to somewhat more rigorous empirical standards in terms of program evaluation. Controlled trials of community-based programs support the role of group- and family-based treatments in reducing sexual and non-sexual offending. However, only three studies used comparison groups. Differences in sexual recidivism rates in these studies ranged from two per cent to 63 per cent¹ while non-sexual recidivism rate differences ranged from 0 per cent to 13 per cent with one study finding an increased rate of non-sexual recidivism amongst treated sex offenders. Finally, recent studies have advocated a broader multisystemic approach to dealing with this population. MST has been shown to be an effective treatment in terms of preventing further sexual and non-sexual offences amongst young people who have sexually offended as well as reducing sexual behaviour problems among non-adjudicated youth.

¹ It should be noted that the figure of 63 per cent was derived from one study (Borduin et al., 1990) that only had eight subjects in each condition.

3.2.7 Recidivism studies that have used treatment-related variables

Rasmussen (1999) included both the length of treatment and failing to complete treatment as part of a broader range of predictors of recidivism in a sample of 170 adjudicated adolescent sex offenders. This study found that failure to complete treatment was a significant predictor of non-sexual, but not sexual, recidivism. More specifically, Rasmussen noted that “JSOs who did not enter treatment or failed to complete their initial treatment were 85 per cent more likely to re-offend non-sexually than JSOs who completed treatment” (p. 79). However, the small number of sexual recidivists ($n = 13$) limited the extent to which predictors could be statistically examined.

In a sample of 86 young people who had received corrections-based sex offender treatment, Miner (2002) found that the length of time spent in treatment significantly predicted violent or property re-offending. Specifically, shorter stays in treatment and a younger age at first sexual offence predicted re-offending. Again, a small number of sexual recidivists precluded any statistical analysis of predictors specific to this type of re-offending.

3.2.8 Meta-analytic studies

Two meta-analytic studies have thus far been conducted in the area of recidivism with this population. Lee, Cottle and Heilbrun (cited in Worling & Langstroem, 2003) included an “Intervention” variable as part of a broader set of predictors of sexual recidivism. This was a composite variable “created to represent any studies investigating any form of treatment geared at reducing sexual re-offending or any re-offending” (pp. 8-9). This variable emerged as the strongest predictor of sexual recidivism ($Zr = -.158$, $n = 5$ studies), indicating that subjects who received any form of treatment were less likely to sexually re-offend. Redlak (2003) also conducted a meta-analysis of predictors of recidivism and included three treatment-related variables: whether subjects had received any type of treatment; high treatment motivation; and completion of treatment. None of these variables were found to produce significant effect sizes in the meta-analysis. Overall, the results of meta-analytic reviews remain equivocal.

3.2.9 Research examining legal process predictors of recidivism

Very few studies have incorporated legal process variables when attempting to predict recidivism within this population. Kahn and Chambers (1991) included juvenile justice system responses to the offence in their set of predictor variables. In this study, subjects whose offences were diverted from the justice system were more likely to recidivate generally (not specifically sexually) when compared to subjects who went through the process of formal adjudication. Kahn and Chambers concluded from this finding that “firm sanctions coupled with formal adjudication are necessary interventions” (p. 344). However, the same study also found a non-significant trend for subjects treated in institutions to be somewhat more likely to re-offend than subjects treated in community-based programs.

Santman (1998) included treatment-related and legal process variables as part of a larger group of recidivism predictors. This study found that subjects who were incarcerated for their index sexual offence were more likely to non-sexually re-offend, however the prediction model only accounted for 13 per cent of the overall variance. Santman further found that subjects who were placed in a group home after being convicted were significantly more likely to sexually re-offend. Somewhat counter-intuitively, Santman (1998) also found that, compared to participants who received treatment but were in denial of their offences, “treated individuals who were in no denial regarding their instant offences were more likely to commit a sexual re-offence than a nonsexual re-offence” (p. 100). Other studies have also pointed to the mediating role of denial in recidivism status. For instance, Hunter and Figueredo (1999) found that denial and accountability were related to adjudication status in that subjects who had no court involvement were more likely to deny committing their index offences.

In an ongoing study of South Australian youth, Daly (2005) examined the recidivism rates of youth who were diverted into family conferences as opposed to youth who went through the court process. The study found that of youth who went to court, participation in a treatment program resulted in a

50 per cent general (ie any) recidivism rate compared to an 81 per cent general recidivism rate of court youth who did not engage in treatment. General recidivism rates for conferencing youth in treatment (43 per cent) were roughly the same as those that did not participate in treatment (53 per cent). After controlling for criminal history, participation in treatment was significantly associated with lower re-offending regardless of court versus conference status. The author suggested that “a targeted program for sexual offending may have a greater impact on reducing re-offending than whether an outcome occurs in court or conference” (p. 15).

Taken together, it is clear that rates of sexual recidivism among adolescents who have sexually offended and successfully completed a treatment program are typically less than 10 per cent. It is important to remember, however, that Nisbet et al. (2004) found that although the adult sexual recidivism rate was nine per cent, the rate of sexual recidivism before the participants turned 18 was 25 per cent. This study was unable to assess the impact of treatment on rates of recidivism.

It would also appear that there is a core group of young people who may be treatment resistant. Despite successfully completing a treatment program, they may go on to sexually offend and may even continue their sexual offending into adulthood. In a recent meta-analysis of 17 international studies and 22 predictor variables, Rombouts, Smallbone, Dennison and Cutmore (2005) found a total of seven variables that emerged as reliable predictors of sexual recidivism among adolescents who had sexually offended. These were: the presence of a stranger victim in the index offence, a history of physical abuse in the offender’s background, the presence of sexual deviance, a non-contact index sexual offence, a greater number of victims, a history of sex offending, and a history of non-sexual offending. Further research is required to better understand how these factors may be related to recidivism and the implications of these findings for treatment programs.

3.3 Comparisons with the adult and general delinquency literature

In considering the literature on treatment outcome studies for adolescents who have sexually offended it may be instructive to also consider recent developments in the adult sex offender literature (Marshall & Fernandez, 2004).

The effectiveness of sex offender programs has previously been questioned by Furby, Weinrott and Blackshaw (1989), who reviewed the literature and suggested that treatment had not been shown to be useful. Quinsey et al. (1993) went as far as to say that the evidence demonstrated that treatment was ineffective and should be abandoned. One of the studies that Quinsey et al. drew their conclusions from was Rice et al. (1991) in which the sample was made up of child molesters from a maximum security psychiatric institution. In this study, treatment involved electric aversive therapy aimed at reducing deviant arousal. Some subjects received social skills training and some received sex education. In short, it was a study looking at quite high-risk offenders and it did not resemble current approaches to treatment with this population.

More recently, Hanson et al. (2002) reviewed 43 studies of mainly adult treatment programs and concluded that there was a significant treatment effect and this effect was mainly seen in the newer programs employing cognitive behavioural approaches and systemic programs with adolescent offenders. They also concluded that treatment programs operating prior to 1980 appeared to have little effect.

In line with the adult trend, there appears to be reason to expect that as the field of treatment for adolescents who have sexually offended becomes more sophisticated and moves further away from adult-based intervention programs, a similar treatment effect will emerge. Certainly the Worling and Curwen (2000) study gives reasons for this hope. In their study, which was with a mix of adjudicated and non-adjudicated young people, there was a difference of 13 per cent in rates of both sexual recidivism as well as violent non-sexual recidivism between the treatment and comparison group. It must be noted, however, that the absence of randomised control in this study makes it impossible to safely conclude that it was the treatment program alone that produced the difference. Encouragingly though, a battery of pre-treatment psychological tests, as well as an examination of demographic and offence characteristics failed to find any significant differences between the groups prior to treatment.

It is important to also note that even small effect sizes can result in large differences in terms of victims and financial cost. In a recent meta-analysis of the effectiveness of treating youth (general offenders) in conflict with the law in Canada (Latimer et al., 2003) an overall effect size of nine per cent was observed. The authors noted that this difference theoretically prevented more than 1,300 offenders from re-offending. Considering the large costs associated with prosecuting adolescents who have sexually offended, providing treatment for them and providing ongoing support or treatment for their victims, even small effect sizes have the potential to result in very large savings for funding bodies.

Similarly, with regard to the costs associated with placing young people into residential care, Hunter et al. (2004) observed:

“The overall cost per child per month for the care of adjudicated juvenile sexual offenders and their families within the Wraparound Milwaukee continuum dropped by 18 per cent between 2000 and 2002. This change can be attributed to the broader implementation and use of offence-specific and holistic assessment, the development of viable and credible community resources, and the corresponding decreased reliance on residential treatment as the sole means for treatment and supervision” (p. 183).

“The cost of clinical care for youth on probation, inclusive of initial psychosexual evaluation, was \$27, 857 (U.S.) per year. The cost of treatment for paroled youth was \$10, 400 per year. Factoring in the cost of legal supervision for these youths raised costs to \$37, 232.60 and \$19, 775.60, respectively. Group-home placement increased costs by approximately \$50,000 to \$60,000 per year... Although the observed costs of community-based care were not minimal, they were still well below the typical costs of private residential or correctional placement” (Hunter et al., 2004, p. 187).

The magnitude of these effects and the net benefit to Australian society with regard to the treatment of adult sex offenders has also previously been demonstrated (Shanahan & Donato, 2001).

It is also important to remember, however, that it is not the case that all intervention strategies are equally effective. Just as the Hanson et al. (2002) study concluded that interventions used with adult sex offenders prior to the 1980s appeared to have little effect, other studies in the general delinquency literature have also shown that some intervention strategies, such as wilderness/challenge programs are among a group of programs (including shock incarceration) that have been consistently shown *not* to be effective in reducing the recidivism of non-institutionalised serious juvenile offenders (Lipsey & Wilson, 1998). While popular views of what may be effective in working with young people (eg “boot camps” or wilderness programs) may often carry the day, it is more important that programs are based on sound theoretical principles and, where available, reliable evidence.

4. Conclusions

Sexual assault is a major concern in our society and involves the victimisation of large numbers of mainly women and children every year. A significant proportion of these assaults are perpetrated by adolescent males.

Young people who sexually offend are a heterogeneous group with different backgrounds, offence and risk profiles and treatment needs. There is no single agreed etiological theory regarding adolescent sexual offending and there is currently a variety of treatment approaches for this population.

The review identified a number of treatment studies involving adolescents in a variety of settings, including community, residential and custodial facilities. The impacts of the various interventions with these young people is difficult to quantify for a variety of reasons. Foremost among these are that the majority of treatment programs do not publish good quality treatment outcome studies. This appears to be because of the considerable methodological challenges involved, as well as the fact that relatively few programs are funded to deliver research as well as treatment.

There does not appear to be any clear evidence to suggest that residential treatment programs are superior to community-based treatment programs for this population. Although it has been suggested that it is possible in a residential program for there to be more hours of service delivery than in a community setting, it is also the case that removing a young person from their normal social ecology may make it harder for them to generalise any treatment gains. At least one study, however, has demonstrated that treatment gains obtained in a residential setting appear to endure beyond that setting, however the study did not link these treatment gains to any measure of recidivism. The fact that residential treatment programs are more likely to have higher-risk participants or come from more socially disordered backgrounds than participants in community-based programs also makes direct comparisons difficult.

What is abundantly clear about residential programs, however, is that they are a good deal more expensive to operate than community-based programs. Programs adopting a multi-system approach, such as the Wraparound Milwaukee program, have recently demonstrated that good quality multi-system community-based programs can deliver significant cost reductions in providing supervision and treatment to this population by decreasing the reliance on residential treatment facilities.

Despite the somewhat confused state of the treatment literature and difficulties in making study comparisons, there appears to be reason to hope that well resourced and carefully constructed treatment programs can have a significant effect in reducing both sexual and non-sexual recidivism. Reductions of 13 per cent in sexual recidivism have been observed between treated and non-treated adolescents in overseas treatment programs. Programs that appear most likely to demonstrate treatment effects are those that address functioning in a broad range of areas, including the individual, family, school and community systems. While individual service providers in private practice may contribute to a multi-system treatment intervention plan, a reliance on individual-level interventions by themselves appears unlikely to lead to the reductions in recidivism associated with the more holistic treatment approaches. It also appears that involvement of families is an adjunct to successful treatment.

The review also identified a shift during the last ten years away from simply treating adolescents as “mini adults” and subjecting them to adult-style intervention programs with individual-level treatment targets such as a reduction in deviant sexual arousal. Although some good-quality treatment efficacy studies were able to demonstrate a reduction in phallometrically measured deviant arousal in adolescents, it is not at all clear whether or not this translated into reduced levels of sexual recidivism.

Rates of transition from adolescent to adult sex offender are now thought to be much lower than previously assumed, however, a minority of adolescents are at risk of continuing their sexual offending into adulthood and adult sex offenders who started their offending in adolescence may be among the more chronic offenders with longer histories and more victims. It is important therefore to provide high quality assessment and intervention programs for this population. At the same time, given that the substantial majority of adolescent sex offenders do not proceed to commit further sexual offences, interventions should ensure that they are not excessively and unnecessarily intrusive. The challenge

remains to provide an appropriate intensity of intervention for higher-risk youth, while ensuring that valuable treatment resources are not wasted and that lower-risk youth and their families are not drawn into intensive, protracted, and often highly intrusive interventions.

A somewhat curious finding of the review was that reductions in both sexual as well as *nonsexual* recidivism were observed in a number of studies. It is not immediately apparent why this should be the case, but a tentative conclusion may be that intervention programs for adolescents who have sexually offended may have a general beneficial effect.

Finally, a review of the available literature in this area reveals an evolving consensus about the elements of successful programs for this population. Consensus is a poor substitute for evidence, however, and as the literature is not at an advanced stage, it is difficult to confidently draw conclusions about, or quantify, treatment effects. Therefore, given the relative lack of good-quality research in this area, it is important for those developing treatment programs in this area not only to base the intervention on sound theoretical principles, but also to plan them in such a way that facilitates the conduct of good quality research and empirical evaluation.

References

- Abel, G.G., Becker, J.V., Cunningham-Rathner, J., Mittelman, M. & Rouleau, J.L. (1988). Multiple paraphiliac diagnoses among sex offenders. *Bulletin of the American Academy of Psychiatry and the Law*, 16, 153-168.
- Abel, G.G. & Osborn, C. (1992). The paraphillias: The extent and nature of sexually deviant and criminal behaviour. *Clinical Forensic Psychiatry*, 15, 675-687.
- Allard-Dansereau, C., Haley, N., Hamane, M. & Bernard-Bonnin, A.C. (1997). Pattern of child sexual abuse by young aggressors. *Child Abuse and Neglect*, 21(10), 965-974.
- Becker, J.V. (1990). Treating adolescent sexual offenders. *Professional Psychology: Research and Practice*, 21(5), 362-365.
- Becker, J.V. & Hicks, S. J. (2003). Juvenile sexual offenders: Characteristics, interventions and policy issues. *Annals of the New York Academy of Sciences*, 397, 397-410.
- Becker, J.V. & Murphy, W. (1998). What we know and do not know about assessing and treating sex offenders. *Psychology, Public Policy and Law*, 4, 116-137.
- Borduin, C.M. (1999). Multisystemic treatment of criminality and violence in adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(3), 242-250.
- Borduin, C.M., Henggeler, S.W., Blaske, D.M. & Stein, R.J. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 34(2), 105-113.
- Borduin, C.M., Mann, B.J., Cone, L.T., Henggeler, S.W., Fucci, B.R., Blaske, D.M. et al. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology*, 63(4), 569-578.
- Borduin, C.M. & Schaeffer, C.M. (2001). Multisystemic treatment of juvenile sexual offenders: A progress report. *Journal of Psychology & Human Sexuality*, 13(3/4), 25.
- Borduin, C.M., Shaeffer & Heilblum. (2003). *Multisystemic therapy with juvenile sex offenders: Clinical and cost effectiveness*. Retrieved 9th June, 2005, from www.mstconference.com/presentations/Borduin.pdf
- Bourgon, G. (2003, May). *The Challenge of Evaluating Change as a Result of Treatment*. Paper presented at the Canadian Conference on Specialized Services for Sexually Abusive Youth, Canada.
- Bourgon, G. & Morton-Bourgon, K.E. (2004). *Canadian multi-site investigation of specialized services for sexually abusive adolescents (interim report)*. Canada: Network for Research on Crime & Justice.
- Bourke, M.L. & Donohue, B. (1996). Assessment and treatment of juvenile sex offenders: An empirical review. *Journal of Child Sexual Abuse*, 5, 47-65.
- Boyd, N.J., Hagan, M. & Cho, M.E. (1999). Characteristics of adolescent sex offenders: A review of the research. *Aggression and Violent Behavior*, 5, 137-146.
- Brannon, J.M. & Troyer, R. (1991). Peer group counseling: A normalized residential alternative to the specialized treatment of adolescent sex offenders. *International Journal of Offender Therapy and Comparative Criminology*, 35(3), 225-234.
- Bremer, J.F. (1992). Serious juvenile sex offenders: Treatment and long-term follow-up. *Psychiatric Annals*, 22(6), 326-332.
- Brown, E.J. & Kolko, D.J. (1998). Treatment efficacy and program evaluation with juvenile sexual abusers: A critique with directions for service delivery and research. *Child Maltreatment*, 3(4), 362-373.
- Carr, A. (2005). Contributions to the study of violence and trauma: Multisystemic therapy, exposure therapy, attachment styles, and therapy process research. *Journal of Interpersonal Violence*, 20, 426-435.
- Chaffin, M. & Bonner, B. (1998). "Don't shoot, we're your children": Have we gone too far in our response to adolescent sexual abusers and children with sexual behavior problems? *Child Maltreatment*, 3, 314-316.
- Chorn, R. & Parekh, A. (1997). Adolescent sexual offenders: A self-psychological perspective. *American Journal of Psychotherapy*, 51(2), 210-228.

- Curtis, N.M., Ronan, K.R. & Borduin, C.M. (2004). Multisystemic treatment: A meta-analysis of outcome studies. *Journal of Family Psychology, 18*(3), 411-419.
- Cyr, M., Wright, J., McDuff, P. & Perron, A. (2002). Intrafamilial sexual abuse: Brother-sister incest does not differ from father-daughter and stepfather-stepdaughter incest. *Child Abuse and Neglect, 26*, 957-973.
- Daly, K. (2005). *Restorative justice and sexual assault: An archival study of court and conference cases*. Retrieved 9th of June, 2005, from <http://www.griffith.edu.au/school/ccj/kdaly.html>
- Davis, G. & Leitenberg, H. (1987). Adolescent sex offenders. *Psychological Bulletin, 101*, 418-427.
- Davis, J.L. & Petretic-Jackson, P.A. (2000). The impact of child sexual abuse on adult interpersonal functioning: A review and synthesis of the empirical literature. *Aggression and Violent Behavior, 5*, 291-328.
- Derezotes, D. (2000). Evaluation of yoga and meditation trainings with adolescent sex offenders. *Child and Adolescent Social Work, 17*(2), 97-113.
- Doren, D., Chaffin, M. & Bonner, B. (1998). Recidivism base rates, predictions of sex offender recidivism and the "sexual predator" commitment laws. *Behavioral Sciences and the Law, 16*, 97-114.
- Eastman, B.J. (2004). Assessing the efficacy of treatment for adolescent sex offenders: A cross-over longitudinal study. *The Prison Journal, 84*(4), 472-485.
- Epps, K. & Fisher, D. (2004). A review of the research literature on young people who sexually abuse. In G. O'Reilly, W. L. Marshall, A. Carr & R. C. Beckett (Eds.), *The handbook of clinical intervention with young people who sexually abuse* (pp. 63-102). New York: Psychology Press.
- Farrington, D.P. (2003). Methodological quality standards for evaluation research. *Annals of the American academy of political and social science, 587*, 49-68.
- Fehrenbach, P. & Monastersky, C. (1988). Characteristics of female adolescent sexual offenders. *American Journal of Orthopsychiatry, 58*(1), 148-151.
- Finkelhor, D. (1984). *Child sexual abuse: New theory and research*. New York: Free Press.
- Flanagan, K. (2003). Intervention with sexually abusive young people in Australia and New Zealand. *Journal of Sexual Aggression, 9*(2), 135-149.
- Flanagan, K. & Hayman-White, K. (1999). *Adolescent Sex Offender Treatment Program. Evaluation / Client Profile Report*. Melbourne: Children's Protection Society.
- Flanagan, K. & Hayman-White, K. (2000). An Australian adolescent sex offender treatment program: Program and client description. *Journal of Sexual Aggression, 5*, 59-77.
- Flanagan, K. & Hayman-White, K. (2003). *Sibling sexual abuse prevention project: A research project on the nature and characteristics of sibling sexual abuse*. Melbourne: Children's Protection Society.
- Freeman-Longo, R.E. (2003). Emerging issues, policy changes and the future of treating children with sexual behavior problems. *Annals of the New York Academy of Sciences, 989*, 502-514.
- Freeman-Longo, R.E., Bird, S., Stevenson, W.F. & Fiske, J.A. (1995). *1994 Nationwide survey of treatment programs and models*. Brandon, VT: Safer Society Press.
- Friedrich, W.N., Beilke, R.L. & Urquiza, A.J. (1988). Behavior problems in young sexually abused boys: A comparison study. *Journal of Interpersonal Violence, 3*, 21-28.
- Furby, I., Weinrott, M.R. & Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin, 105*, 3-30.
- Gerber, J. (1994). The use of art therapy in juvenile sex offender specific treatment. *Arts in Psychotherapy, 21*(5), 367-374.
- Gidycz, C.A. & Koss, M.P. (1989). The impact of juvenile sexual victimization: Standardised measures of anxiety, depression and behavioral deviancy. *Violence and Victims, 4*, 139-149.

- Graves, R., Openshaw, D.K. & Adams, G.R. (1992). Adolescent sex offenders and social skills training. *International Journal of Offender Therapy and Comparative Criminology*, 36(2), 139-153.
- Hagan, M.P., King, R.P. & Patros, R.L. (1994). The efficacy of a serious sex offender treatment program for adolescent rapists. *International Journal of Offender Therapy and Comparative Criminology*, 38(2), 141-150.
- Hanson, R.K. (2002). Recidivism and age: Follow-up data from 4673 sexual offenders. *Journal of Interpersonal Violence*, 17(10), 1046-1062.
- Hanson, R.K., Gordon, A., Harris, A.J.R., Marques, J.K., Murphy, W., Quinsey, V.L. et al. (2002). First report of the collaborative outcome data project on the effectiveness of psychological treatment for sex offenders. *Sexual Abuse: A Journal of Research and Treatment*, 14(2).
- Harnett, P.H. & Misch, P. (1993). Developmental issues in the assessment and treatment of adolescent perpetrators of sexual abuse. *Journal of Adolescence*, 16 (397-405).
- Henggeler, S.W., Cunningham, P.B., Pickrel, S.G., Schoenwald, S.K. & Brondino, M.J. (1996). Multisystemic therapy: An effective violence prevention approach for serious juvenile offenders. *Journal of Adolescence*, 19, 47-61.
- Henggeler, S.W., Schoenwald, S.K., Borduin, C.M., Rowland, M.D. & Cunningham, P.E. (1998). *Multisystemic Treatment of Antisocial Behavior in Children and Adolescents*. New York: Guilford Press.
- Henry, C. & Cashwell, C.S. (1998). Using reality therapy in the treatment of adolescent sex offenders. *International Journal of Reality Therapy*, 18(1), 8.
- Holmes, W.C. & Slap, G.B. (1999). Sexual abuse of boys: Definition, prevalence, correlates, sequelae and management. *Journal of the American Medical Association*, 280, 1855-1862.
- Hunter, J.A. & Figueredo, A.J. (1999). Factors associated with treatment compliance in a population of juvenile sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 11(1), 49-67.
- Hunter, J.A., Gilbertson, S.A., Vedros, D. & Morton, M. (2004). Strengthening community-based programming for juvenile sexual offenders: Key concepts and paradigm shifts. *Child Maltreatment*, 9(2), 177.
- Hunter, J.A. & Lexier, L.J. (1998). Ethical and legal issues in the assessment and treatment of juvenile sex offenders. *Child Maltreatment*, 3, 339-348.
- Hunter, J.A. & Santos, D.R. (1991). The use of specialized cognitive-behavioral therapies in the treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 34(3), 239-247.
- Jenkins, A. (1999). Making it fair: Respectful and just interventions with disadvantaged young people who have abused. In M. Erooga & H. Masson (Eds.), *Children and Young People who Sexually Abuse Others: Challenges and Responses*. (pp. 95-110). New York: Routledge.
- Kahn, T.J. & Chambers, H.J. (1991). Assessing reoffense risk with juvenile sexual offenders. *Child Welfare*, 70(3), 333-345.
- Kendall-Tackett, K.A., Williams, L.M. & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin*, 113(1), 164-180.
- Kennedy, W.A. & Hume, M.P. (1998). Juvenile sex offender program reduces recidivism. *Brown University Child and Adolescent Behavior Letter*, 14(1), 1-4.
- Knopp, F.H. & Lackey, L.B. (1987). *Female sexual abusers: a summary of data from 44 treatment providers*. Orwell, VT: Safer Society Press.
- Lab, S.P., Shields, G. & Schondel, C. (1993). Research note: An evaluation of juvenile sexual offender treatment. *Crime and Delinquency*, 39(4), 543-553.
- Lane, S. & Lobanov-Rotovsky, C. (1997). Special populations: Children, families, the developmentally disabled, and violent youth. In G. Ryan & S. Lane (Eds.), *In Juvenile Sexual Offending (new and revised edition)* (pp. 322-359). San Francisco: Jossey-Bass Publishers.

- Latimer, J., Dowden, C. & Morton-Bourgon, K.E. (2003). *Treating youth in conflict with the law: A new meta-analysis*: Research and Statistics Division: Department of Justice Canada.
- Leheup, R. & Myers, S. (1999). A description of a community-based project to work with young people who sexually abuse. In M. C. Calder (Ed.), *Working with young people who sexually abuse: New pieces of the jigsaw puzzle* (pp. 173-184). Dorset: Russell House.
- Letourneau, E.J. & Miner, M.H. (2005). Juvenile sex offenders: A case against the legal and clinical status quo. *Sexual Abuse: A Journal of Research and Treatment*, 17(3), 293-312.
- Letourneau, E.J., Schoenwald, S.K. & Sheidow, A.J. (2004). Children and adolescents with sexual behaviour problems. *Child Maltreatment*, 9(1), 49-61.
- Lipsey, M.W. & Wilson, D.B. (1998). Effective intervention for serious juvenile offenders: A synthesis of research. In R. Loeber & D. P. Farrington (Eds.), *Serious & violent juvenile offenders: Risk factors and successful interventions* (pp. 313-345). Thousand Oaks: Sage.
- Littell, J.H. (2005). Lessons from a systematic review of effects of multisystemic therapy. *Children and youth services review*, 27, 445-463.
- Loeber, R. & Farrington, D.P. (Eds.). (1998). *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*. Thousand Oaks, CA: Sage.
- Lund, C.A. (1992). Long-term treatment of sexual behavior problems of adolescent and adult developmentally disabled persons. *Annals of Sex Research*, 5 (5-31).
- Lundrigan, S. (2004). Integrating addictions-based approaches in the treatment of adolescent sexual offenders. *Sexual Addiction & Compulsivity*, 11(4), 301-324.
- Marshall, W.L. & Barbaree, H.E. (1990). An integrated theory of the etiology of sexual offending. In W. L. Marshall, D. R. Laws & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories and treatment of the offender* (pp. 257-275). New York: Plenum.
- Marshall, W.L. & Fernandez, Y.M. (2004). Treatment outcome with juvenile sex offenders. In G. O'Reilly, W. L. Marshall, A. Carr & R. Beckett (Eds.), *The handbook of clinical intervention with young people who sexually abuse* (pp. 442-452). New York: Psychology Press.
- Matthews, R., Hunter, J.A. & Vux, J. (1997). Juvenile female sexual offenders: Clinical characteristics and treatment issues. *Sexual Abuse: Journal of Research & Treatment*, 9(3), 187-199.
- Mazur, T. & Michael, P.M. (1992). Outpatient treatment for adolescents with sexually inappropriate behaviour: Program description and six-month follow-up. *Journal of Offender Rehabilitation*, 18(3/4), 191-203.
- McConaghy, N., Blaszczynski, M.A., Armstrong, M.S. & Kidson, W. (1989). Resistance to treatment of adolescent sex offenders. *Archives of Sexual Behaviour*, 18(2), 97-107.
- McLeer, S.V., Deblinger, E., Atkins, M.L., Ralphe, D.L. & Foa, E. (1988). Posttraumatic stress disorder in sexually abused children. *Journal of the American Academy of Child and Juvenile Psychiatry*, 27, 650-654.
- Miner, M.H. (2002). Factors related with recidivism in juveniles: Analysis of serious juvenile sex offenders. *Journal of research in crime and delinquency*, 39(4), 421-436.
- Moffitt, T.E. (1997). Adolescent-Limited and Life-Course-Persistent Offending: A Complementary Pair of Developmental Theories. In T. Thurnberry (Ed.), *Developmental theories of crime and delinquency: Advances in criminological theory*. (Vol. 7, pp. 11-54). New Jersey: Transaction publishers.
- Nagayama Hall, G.C. (1995). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology*, 63, 802-809.
- NAPN. (1993). The revised report from the National Task Force on Juvenile Sexual Offending. *Juvenile and Family Court Journal*, 44, 1-120.
- Nisbet, I.A., Wilson, P.H. & Smallbone, S.W. (2004). A prospective longitudinal study of sexual recidivism among adolescent sex offenders. *Sexual Abuse: A Journal of Research and Treatment*, 16(3), 223-234.

- Northey, W.F. (1999). The use of coercion in the treatment of incarcerated juveniles adjudicated on sexual offences: Consequences and implications. *Child and Adolescent Social Work, 16*(4), 259-275.
- O'Callaghan, D. (2004). Adolescents with intellectual disabilities who sexually harm: Intervention design and implementation. In G. O'Reilly, W.L. Marshall, A. Carr. & R. Beckett (Eds.), *The Handbook of Clinical Intervention with Young People who Sexually Abuse* (pp. 345-368). Hove: Psychology Press.
- O'Callaghan, D. & Print, B. (1994). Adolescent sexual abusers: Research, assessment and treatment. In T. Morrison, M. Erooga & R.C. Beckett (Eds.), *Sexual offending against children: Assessment and treatment of male abusers* (pp. 146-177). London: Routledge.
- Pithers, W.D. (1993). Treatment of rapists: Reinterpretation of early outcome data and exploratory constructs to enhance therapeutic efficacy. In G. C. N. Hall, R. Hirschman, J.R. Graham & M.S. Zaragoza (Eds.), *Sexual aggression: issues in etiology, assessment, and treatment* (pp. 167-196). Washington, DC: Taylor & Francis.
- Print, B. & O'Callaghan, D. (2004). Essentials of an effective treatment programme for sexually abusive adolescents. In G. O'Reilly, W. L. Marshall, A. Carr & R. C. Beckett (Eds.), *The handbook of clinical intervention with young people who sexually abuse* (pp. 237-274). New York: Psychology Press.
- Quinsey, V.L., Harris, G.T., M.E., R. & Lalumiere, M.L. (1993). Assessing treatment efficacy in outcome studies of sex offenders. *Journal of Interpersonal Violence, 8*, 512-523.
- Rasmussen, L.A. (1999). Factors related to recidivism among juvenile sexual offenders. *Sexual Abuse: Journal of Research & Treatment, 11*(1), 69-86.
- Redlak, A. (2003). *An exploratory meta-analysis of the predictor variables of juvenile sex offenders who sexually recidivate*. Unpublished doctoral dissertation.
- Rice, M.E., Quinsey, V.L. & Harris, G.T. (1991). Sexual recidivism among child molesters released from a maximum security psychiatric institution. *Journal of Consulting and Clinical Psychology, 59*, 381-386.
- Rich, P. (2003). Overview of treatment. In Rich, P. (Ed.), *Understanding, assessing and rehabilitating juvenile sexual offenders* (pp. 218-239). Hoboken: John Wiley & Sons.
- Righthand, S. & Welch, C. (2001). *Juveniles who have sexually offended: A review of the professional literature*. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.
- Rombouts, S., Smallbone, S.W., Dennison, S. & Cutmore, T. (2005). *A Meta-Analytic Investigation of Juvenile Sex Offender Recidivism*. Paper presented at the 18th Annual Australian and New Zealand Society of Criminology (ANZSOC) conference, Wellington, New Zealand.
- Ryan, G. (1999). Treatment of sexually abusive youth: The evolving consensus. *Journal of Interpersonal Violence, 14*, 422-436.
- Salter, A C. (1988). *Treating child sex offenders and victims: A practical guide*. Newbury Park, California: Sage Publications.
- Santman, J. (1998). *A taxonomic model of juvenile sexual offender recidivism*. Unpublished doctoral dissertation, California School of Professional Psychology.
- Schmidt, F. & Heinz, L. (1999). Treatment success of a community-based program for young adolescent sex offenders. In B. Schwartz (Ed.), *The Sex Offender: Theoretical Advances, Treating Special Populations and Legal Developments* (Vol. 3, pp. 18-11-18-19). New York: Civic Research Institute.
- Seabloom, W., Seabloom, M. E., Seabloom, E., Barron, R. & Hendrickson, S. (2003). A 14 to 24 year longitudinal study of a comprehensive sexual health model treatment program for adolescent sex offenders: Predictors of successful completion and subsequent criminal recidivism. *International Journal of Offender Therapy and Comparative Criminology, 47*(4), 468-481.
- Shanahan, M. & Donato, R. (2001). Counting the cost: Estimating the economic benefit of pedophile treatment programs. *Child Abuse and Neglect, 25*, 541-555.

- Shapiro, J.P., Welker, C.J. & Pierce, J. (2001). An evaluation of residential treatment for sexually aggressive youth. *Journal of Child Sexual Abuse, 10*(1), 1-21.
- Sheridan, A., McKeown, K., Cherry, J., Donohoe, E., McGrath, K., O'Reilly, K. et al. (1998). Perspectives on treatment outcome in adolescent sexual offending: A study of a community-based treatment programme. *Irish Journal of Psychology, 19*(1), 168-180.
- Smallbone, S.W. (in press). An attachment-theoretical revision of Marshall and Barbaree's Integrated theory of the etiology of sexual offending. In W.L. Marshall, Y.M. Fernandez & L.E. Marshall (Eds.), *Sexual offender treatment: Issues and controversies*. Chichester: John Wiley and Sons.
- Smith, W.R. & Monastersky, C. (1986). Assessing juvenile sexual offenders' risk for reoffending. *Criminal Justice and Behavior, 13*(2), 115-140.
- Spangaro, J. (2001). *Initial presentations to sexual assault services*. Retrieved 17 March, 2002, from <http://www.health.nsw.gov.au/iasd/iad/sas/trends.html>
- Stewart, A., Dennison, S. & Waterson, E. (2002). Pathways from maltreatment to juvenile offending. *Trends and Issues in Crime and Criminal Justice (241)*, 1-6.
- Swenson, C.C., Henggeler, S.W., Schoenwald, S.K., Kaufman, K.L. & Randall, J. (1998). Changing the social ecologies of adolescent sexual offenders: Implications for the success of multisystemic therapy in treating serious antisocial behaviour in adolescents. *Child Maltreatment, 3*(4), 330-338.
- Vinson, T. (2000). *Achieving responsibility: An evaluation of two programs for adolescents who have sexually abused* (abridged version). Sydney: NSW Department of Health.
- Weinrott, M.R., Riggan, M. & Frothingham, S. (1997). Reducing deviant arousal in juvenile sex offenders using vicarious sensitization. *Journal of Interpersonal Violence, 12*(5), 704.
- Wood, R.M., Grossman, L.S. & Fichtner, C.G. (2000). Psychological assessment and outcome with sex offenders. *Behavioral Sciences and the Law (18)*, 23-41.
- Worling, J.R. & Curwen, T. (2000). Adolescent sexual offender recidivism: Success of specialized treatment and implications for risk prediction. *Child Abuse and Neglect, 24*(7), 965-982.
- Worling, J.R. & Curwen, T. (2001). *The "ERASOR": Estimate of Risk of Adolescent Sexual Offender Recidivism. Version 2.0*. Ontario, Canada: Sexual Abuse: Family Education and Treatment (SAFE-T) Program.
- Worling, J.R. & Langstroem, N. (2003). Assessment of criminal recidivism risk with adolescents who have offended sexually. *Trauma violence and abuse, 4*(4), 341-362.
- Zimring, F.E. (2004). *An American travesty: Legal responses to adolescent sexual offending*. Chicago: University of Chicago Press.



Tables

Table 1: Treatment Outcome Studies using Psychometric Measures

Study	Study Quality (1-5)	Treatment Program	Sample Type	Treatment N
Hunter & Santos (1991)	2	Specialised CBT	13-17 years <i>M</i> = 15 years 39 per cent IF	27
Graves et al. (1992)	5	C Treatment & Social Skills Training	<i>M</i> = 15 years	18
Weinrott et al. (1997)	5	Specialised CT VS	13-18 years <i>M</i> = 14.7 years 30 per cent IF	35
Bourgon & Morton-Bourgon (2004)	2	Multi-Site Group-Based IT Family Therapy	62 per cent IF	–
Eastman (2004)	2	R Offence-Specific	A 13-22 years <i>M</i> = 17 years	Post: 40 FU: 20
Letourneau et al. (2004)	3	MST	NA	166

Comparison N	F-U Period	Recidivism Measure	Sexual Recidivism (%)	Non-sexual Recidivism (%)
-	2 months	-	-	-
12	10 weeks (post only)	-	-	-
34	3 months	-	-	-
-	-	-	-	-
40	6-18 months	-	-	-
413 (few SBPs) 943 (no SBPs)	<i>M</i> = 4.3 months	-	-	-

NOTE: A = Adjudicated; NA = Non-Adjudicated; C = Community-Based Treatment; CBT = Cognitive-Behaviour Therapy; CM = Case Management; CT = Cognitive Therapy; CM = Child Molesters; IF = Intra-Familial Sex Offenders; IT = Individual Therapy; MST = Multisystemic Therapy; R = Residential Treatment; SBP = Sexual Behaviour Problems; VS = Vicarious Sensitisation

Table 2: Treatment Outcome Studies using Recidivism Outcome Measures

Study	Study Quality (1-3)	Treatment Program	Sample Type	Treatment N
Becker (1990)	1	C CBT	-	52
Borduin et. al. (1990)	3	MST	-	8
Brannon & Troyer (1991)	2	R Peer-Based	A 13-18 years <i>M</i> = 16.5 years	53
Kahn & Chambers (1991)	1	Specialised Sexual Deviancy Therapy	A 8-18 years Med. = 15 years 28 per cent IF	221
Bremer (1992)	1	Group-Based Family Involvement	A 12-18 years 71 per cent CM	193
Mazur & Michael (1992)	1	C Family-Based	13-17 years 70 per cent IF	10
Lab et. al. (1993)	2	C Group-Based Offence-specific Individual/ Family Sessions	A <i>M</i> = 14 years	46
Hagan et al. (1994)	1	R Group-Based Offence-specific	A & NA CM	50
Kennedy & Hume (1998)	1	Group-Based	-	114
Sheridan et al. (1998)	1	Group-based CBT Parent counselling IT	14-21 years Med. = 18 years 75 per cent IF	22
Schmidt & Heinz (1999)	1	CBT Group-Based IT Family Therapy	12-15 years 32 per cent IF	33
Worling & Curwen (2000)	2	Group-Based Family-Based IT	12-19 years <i>M</i> = 15.5 years 28 per cent IF	58

Comparison N	F-U Period	Recidivism Measure	Sexual Recidivism (%)	Non-sexual Recidivism (%)
-	1 year	Self-report or re-referral	10	-
8	<i>M</i> = 3 years	Criminal charges	12.5 – Treatment 75 – Comparison	25 – Treatment 50 – Comparison
57	-	Convictions	1.9 – Sex Offender 0 – Non-Sex Offender	32.1 – Sex Offender 15.8 – Non-Sex Offender
-	<i>M</i> = 20 months	Convictions	8	45
-	Several months to 6 years	Self-report	11	-
-	6 months	Self- and parent-report	0	-
109	1-3 years	Convictions	2 – Treatment 4 – Comparison	22 – Treatment 13 – Comparison
-	2 years	Convictions	8	38
-	1-5 years	-	5.7	25
-	Not Specified	Self-Report	0	-
-	<i>M</i> = 28 months	-	3	37
91	<i>M</i> = 6.23 years	Criminal charges	5 – Treatment 18 – Comparison	19 – Treatment* 32 – Comparison

NOTE: A = Adjudicated; NA = Non-Adjudicated; C = Community-Based Treatment; CBT = Cognitive-Behaviour Therapy; CM = Case Management; CT = Cognitive Therapy; CM = Child Molesters; IF = Intra-Familial Sex Offenders; IT = Individual Therapy; MST = Multisystemic Therapy; R = Residential Treatment; SBP = Sexual Behaviour Problems; VS = Vicarious Sensitisation

* Results are for violent non-sexual recidivism.

Table 2: Treatment Outcome Studies using Recidivism Outcome Measures (continued)

Study	Study Quality (1-3)	Treatment Program	Sample Type	Treatment N
Shapiro et al. (2001)	2	R IT Group-Based CBT	A 11-15 years <i>M</i> = 13 years	26
Campbell & Lerew (2002)	1	IT Group-Based Family Therapy CM Life Skills Vocational	A & NA 5 per cent IF	112
Seabloom et al. (2003)	2	Group-Based IT Family Therapy “Marathons”	30 per cent IF	52
Hunter et al. (2004) (Wraparound)	1	Multisystemic	A <i>M</i> = 13.7 years 50 per cent IF	During/Post: 202 1 year FU: 100
Hunter et al. (2004) (Norfolk)	1	Social-Ecological & Offence-specific	A 12-20 years	25

Comparison N	F-U Period	Recidivism Measure	Sexual Recidivism (%)	Non-sexual Recidivism (%)
-	1 year	Self- and staff-report	8	27
-	-	-	3.4	-
50 (withdrawn) 18 (referred)	<i>M</i> = 18.34	Arrests and Convictions	0 - Treatment 8 - Withdrawn 0 - Referred	4 - Treatment* 4 - Withdrawn 11 - Referred
-	1 year	Adjudicated	During/Post: 8 1 year FU: 2	During/Post: 27 1 year FU: 23
-	1-8 months	-	0	20

NOTE: A = Adjudicated; NA = Non-Adjudicated; C = Community-Based Treatment; CBT = Cognitive-Behaviour Therapy; CM = Case Management; CT = Cognitive Therapy; CM = Child Molesters; IF = Intra-Familial Sex Offenders; IT = Individual Therapy; MST = Multisystemic Therapy; R = Residential Treatment; SBP = Sexual Behaviour Problems; VS = Vicarious Sensitisation

* Results are for violent non-sexual recidivism.

Appendices

Appendix 1: Program descriptions

The following program descriptions have been drawn from a variety of peer-reviewed and non peer-reviewed sources and are not the result of a systematic search of the literature.

The Adolescent Sex Offender Treatment Program (ASOTP) is an example of an Australian program that services young non-adjudicated youth. It is auspiced by the Children's Protection Society (CPS) in Melbourne and has been described by Flanagan and Hayman-White (2000).

The program arose from the Child Sexual Abuse Treatment Program (CSATP) of the CPS in 1994 when it became apparent that many children had been victimised by young abusers, including siblings, but there were no programs outside the Juvenile Justice system available for adolescents with sexually abusive behaviour problems.

The ASOTP accepts referrals for young people aged up to 17 years who exhibit sexually abusive behaviour problems and who reside in the metropolitan area of Melbourne. A criterion for accepting a referral is that the abuse has been reported to the police, however many clients are not charged with offences and the majority do not attend the program as a condition of a court order. The service has also accepted a substantial number of referrals from voluntary clients.

The mean age of clients was reported as 13.5 years, while 86 per cent were 12 years or under. The majority (54 per cent) had a history of child maltreatment, in most cases sexual abuse. The largest subgroup of perpetrators of the sexual abuse was family members. The mean age of the client's most recent victim was 8.6 years, with a range of two to 82 years. Only three clients had a victim aged more than 18 and when these cases were excluded, the mean age of victims fell to 7.7 years.

The program is described as being similar to programs run in North America and the United Kingdom and includes group therapy, individual counselling and/or family reconstruction. The service also offers an After Care group for clients who have completed the program. The group therapy consists of a series of modules including Taking Responsibility, the Cycle of Sexual Offending, Fantasy Control, Victim Empathy, Social and Communication Skills and Relapse Prevention.

The ASOTP has self-published an evaluation of its service (Flanagan & Hayman-White, 1999), as well as a small study on Sibling Sexual Abuse (Flanagan & Hayman-White, 2003) but has not contributed any treatment outcome studies to the peer-reviewed literature.

Another Australian program is *New Street*. The New Street program was developed by the NSW Department of Health in 1997 in order to address the lack of services for young sexual abusers outside of the criminal justice system in NSW. New Street addresses sexually abusive behaviour exhibited by young people aged 10 years or over. Vinson (2000) conducted a program evaluation of the New Street program.

New Street accepts referrals based upon the following criteria: (a) involvement of child protection investigation agencies in the case; (b) where appropriate an investigation is to be conducted prior to acceptance of the referral; (c) participation of carers in the assessment and treatment process; and (d) commitment of key agencies and carers to the safe placement of the young person. In addition, service provisions are dependent upon the cessation of the abuse and acknowledgement of the unacceptability of the behaviour by the client and carers.

According to Vinson, of the 127 referrals received by New Street between 1998 and 2000, the majority (92.1 per cent) were males while 7.9 per cent were females. Charges had been laid in only 14.2 per cent of the referrals (all against males). The majority of referrals came from five main sources, including the NSW Department of Community Services, Joint Investigation Teams (Police/Department of Community Services), parents/carers, non-government organisations, and sexual assault services. Of the 127 referrals, 25 had participated in the program and 102 did not participate in further activities apart from assessment. The reasons for this included limited program capacity, unsuitability of cases, or failure to comply with program conditions.

Two young people had completed the program in the two-year period, 15 remained in the program, and eight had discontinued. Reasons for discontinuation included breach of safe placement (contact with siblings/potential victims), absconding, sexual abuse not confirmed to have occurred, parents refusing to inform the school, and deterioration of offender's behaviour. Of these discontinued clients, the average duration of contact was five months.

When multiple perpetrators and/or victims are present in one family, New Street has the capacity for involvement of several workers with the one family. Relatedly, the relatively small caseloads allow for additional planning of therapeutic work in order to enhance cognitive restructuring, victim empathy, development of insight into offence pathways, and relapse prevention.

Feedback from external agencies revealed that sexual assault services often received case management guidance from New Street. Recommendations offered by Vinson (2000) included:

- (a) education/training programs for representatives of the Director of Public Prosecutions
- (b) an instruction to be issued to inform police regarding the necessity of charging young sexual abusers
- (c) the appointment of a Department of Community Services officer to support the treatment process
- (d) the development of a strategic plan to reinforce the requirements of the Memorandum of Understanding (negotiated between various government departments)
- (e) wider dissemination of information regarding the program
- (f) development of formal protocols for client inclusion/exclusion decisions
- (g) reduction in the time taken for treatment (currently two years)
- (h) a greater recognition of, and training in, the principles of relapse prevention.

New Street has not published any treatment outcome studies in the literature, however it is understood by these authors that the service is currently establishing a comprehensive prospective and retrospective study of client outcomes, including treatment outcomes.

A final Australian program is the South Australian Mary Street program. The Mary Street program is in Adelaide and has been operational for 12 years. It accepts referrals of young people aged 12 to 18 who have been charged with a sexual offence, exhibited inappropriate sexual behaviour, or who have sexually harassed others.

The aims of the program are to help young people take responsibility for their inappropriate/abusive behaviour, make amends for the harm caused by their sexual behaviour, develop respect for others and appropriate relationship skills, develop self-respect, and develop positive sexual norms. The program represents a collaborative approach between justice and welfare services as staff may attend a family conference, as well as appearing with clients at court to make a commitment to treatment for a maximum of 12 months.

Mary Street is funded by the South Australian Health Commission and engages in cooperative work with police, courts, welfare agencies and schools. Other tasks of the agency include assessments of youth for court, assessments for statutory organisations to aid in family reunification, training/education of health, welfare, justice, and education workers, and consultation regarding policy development (Daly, Curtis-Fawley, Bouhours, Weber & Scholl, 2003).

Mary Street has not published any treatment outcome studies in the literature, however staff from the service have published other material related to their treatment philosophy (eg Jenkins, 1999).

A number of overseas programs have published descriptions of their services in the peer-reviewed literature. Leheup and Myers (1999) have described a community-based program in England which forms part of the Nottinghamshire Child and Adolescent Psychiatric Services. The program is based in the Thorneywood Unit and planning for the project began in 1995. The program accepts referrals from any source, with the only criteria being geographic and that the young people have to be under 18 and have had an allegation of sexually abusive behaviour.

At the time of reporting in 1999, the program had been operational for two years and had seen 49 clients. The age range of clients was three to 18 years, with the majority in the 12 to 15 years age group. Two girls had been referred during this period. There had been no police involvement in 71 per cent of referrals, while 14 per cent of referrals involved clients being cautioned and eight per cent of clients were given supervision orders, although only one client had a specific condition on their order to attend the program.

In all but two referrals, the clients had abused people who were known to them. Forty per cent of victims were siblings or other relatives and 65 per cent were female. The largest subgroup (37 per cent) of victims was in the 12-18 years age group, while 27 per cent of victims were in the six to 11 years age group. In 40 per cent of cases the abuse involved touching the breasts or genitalia of another child, 28 per cent involved anal or vaginal penetrative acts, 18 per cent involved oral-genital contact and eight per cent involved indecent exposure. Twenty-nine per cent of clients had specific histories of sexual abuse and 35 per cent had a mixed history of physical abuse, emotional abuse and neglect.

The initial assessment was described as being the same as any other Child and Adolescent Mental Health Assessment and involved interviews with the young person and their family. The treatment was described as being “focused on developing an understanding with them about their sexually abusive behaviour in the context of their social and family life” (p. 177). The treatment involved a mix of cognitive behavioural work, as well as psycho-dynamic work around the relationship between the client and therapist in order to “give more understanding of the nature of the child’s experience of relationships” (p. 178).

The program made a decision at the end of the second year of operation not to employ a group work program due to the wide range of difficulties, cognitive ability and social functioning of the young people. Although the authors report that monitoring of the cases over the three years of the operation of the program has resulted in “no reported cases of re-abusing either through formal or informal channels” (p. 180), no other details are provided and no other treatment outcome studies of the Thorneywood program have been published.

Another English program for adolescents with sexual behaviour problems is G-MAP, in Greater Manchester (O’Callaghan & Print, 1994; Print & O’Callaghan, 2004), originally known as the Greater Manchester Adolescent Program. This program has operated since 1988 and has been described as a multi-agency initiative with staff from social services, probation, NSPCC and the health service (O’Callaghan & Print, 1994). It provides services to young people between the ages of 13 and 18 years who have sexually abused others. O’Callaghan and Print (1994) list a legal mandate as an important motivation for young people to engage with treatment and state that “unless it is thought that there are significant identifiable consequences for an abuser who drops out or is excluded from treatment, he is unlikely to be accepted onto the G-MAP programme” (p. 163).

In a more recent description of the program, however, Print and O’Callaghan (2004) stress the importance of therapeutic staff assisting the clients to engage with treatment and note that “[P]rofessionals working with young people in these circumstances must accept the responsibility of anticipating, addressing and overcoming these possible blocks to engagement and progress” (p. 239). They further note that “[L]egal mandates may prove useful in initial engagement in that they may provide overt negative consequences to non-cooperation. Unless, however, young people are subsequently helped to develop internal motivation, it is likely they will at best offer token compliance in treatment or may increasingly resent and resist the treatment process and providers” (p. 241).

This change in attitude to legal mandates appears to reflect the wider shift in the literature away from using coercive or confrontational techniques. The shift appears to be more prominent within treatment programs operating outside of the US (Northey, 1999).

The clients of G-MAP appear to be a mix of adjudicated and non-adjudicated young people. O'Callaghan and Print (1994) compared a group of 50 clients of G-MAP with 28 adolescents with convictions for non-sexual offences and found that the G-MAP clients involvement in behaviours such as drug abuse, theft, criminal damage and car theft was significantly less than that of the non-sex offender group. It has elsewhere been reported that approximately half of G-MAP referrals have learning disabilities, defined as an IQ of 69 and below (Epps & Fisher, 2004).

Print and O'Callaghan (2004) describe the G-MAP program as having six essential areas of need that should be considered for each client; non-sexual conduct problems, personal factors, influences on participation, sexuality, family and offending specific problems. Although offence-specific work is a part of the overall program, it may not be a primary need and is often not the starting point for therapeutic intervention. The program is currently described as involving individual, group and family work.

O'Callaghan and Print (1994) described group work as the primary therapeutic approach. This was sometimes supplemented by individual work, however due to time restrictions the individual sessions were usually provided by professionals outside of G-MAP. The 1994 description of the program also contained less emphasis on family work. Again, this appears to be indicative of the shift in the field from adult-style group-based interventions to a more holistic approach to the young person and the systems in which they operate.

There do not appear to be any treatment outcome studies from G-MAP that have been published in peer-reviewed journals.

Appendix 2: Treatment outcome studies with delinquent/antisocial youth using Multisystemic Therapy (MST)

Multisystemic Therapy (MST) is a treatment approach that targets individual, family, peer, school, and community variables related to antisocial behaviour. Intervention consists of identifying the strengths and needs in each of these areas in order to more specifically address treatment needs. It is best described as “a multi-faceted, short-term, home- and community-based intervention for families of youth with severe psychosocial and behavioural problems” (Littell, 2005, p. 447). According to Carr (2005), treatment typically lasts around four months and may include up to 15 contact hours per week.

Curtis, Ronan and Borduin (2004) conducted a meta-analysis of 11 treatment outcome studies that had applied MST to juvenile antisocial behaviour. These studies had evaluated the impact of MST on a total of 708 young people. They found that post-treatment, youths and families receiving MST were functioning better than 70 per cent of youths/families that had received other interventions. Moreover, the effect of MST was higher in studies with graduate student therapists than community-based therapists while greater treatment effects were found in regard to measures of family relations than on measures of individual and peer factors.

Littell (2005) recently conducted a systematic review of the effects of MST. The author noted that MST research has failed to pay attention to implementation, data collection, and analytic issues that may influence internal validity of experimental designs. However, little comment was made in this review regarding the effectiveness of MST interventions. Carr (2005) notes that compared to usual service delivery, MST has a significant effect on violent offending, drug abuse, school problems, mental health issues, and family functioning. He further notes that “MST is unquestionably one of the most important contributions of the past two decades to our scientific understanding of how to prevent antisocial youth from growing up to be violent adults” (p. 429).

