

Review of Sex Offender Treatment Programmes

Derek Perkins, Sean Hammond, Dawn Coles, Darren Bishopp

**Department of Psychology
Broadmoor Hospital**



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ABSTRACT

A review of the literature on sex offender treatments was carried out for the High Security Psychiatric Commissioning Board (HSPSCB). The available research is varied in focus, methodology and quality, nevertheless there appears to be grounds for cautious optimism regarding the efficacy of treatment programmes aimed at sex offenders. One conclusion of the review is that greater emphasis will need to be given to the idiographic and dynamic features presented by individual offenders in the provision and evaluation of treatment. Recommendations for programmes dealing with the high risk offenders are offered.

EXECUTIVE SUMMARY

The sex offender literature contains much work on sexual recidivism, with and without treatment, but there are few methodologically sound comparisons between different therapeutic methods. Long term follow-up studies of sex offenders have shown inconsistent “survival rates” (absence of recidivism). However, the highest risk sex offenders appear to be characterised by the following factors:

- Early onset criminal history characterised by sex and violence convictions
- Predominantly extra-familial offence types of female rape and male child sexual assault
- Diverse sexual offending – different victim ages/gender/relationships/locations
- Anti-social lifestyle, social influences and attitudes
- Psychopathic personality – as measured by the Hare Psychopathy Checklist
- High impulsivity, denial, cognitive distortions and emotional loneliness
- Low victim empathy, emotional control, intimacy skills and problem-solving abilities
- Sexually deviant arousal, fantasies and pre-occupation

Treatment programmes which utilise cognitive-behavioural methods and/or anti-libidinal medication to address criminogenic need (i.e. offender characteristics empirically related to offending) can demonstrably improve survival rates. Best evidence on key components of successful sex offender treatment programmes are that they:

- Address developmentally generated predispositions to offend, such as dysfunctional attachments and sexual/physical/emotional abuse (“Past”); factors associated with the maintenance of sexual offending behaviour (“Present”); and the development of relapse prevention skills (“Future”)
- Address the development of offender insight, motivation not to offend and the skills necessary to avoid offending and achieve a non-offending lifestyle
- Utilise treatment methods geared to the (criminogenic and personality) needs and (intellectual and emotional) capabilities of the offenders in treatment
- Utilise combinations of milieu, group therapy and individual therapy as appropriate for different aspects of treatment and assessment

The research literature highlights the fact that evaluation of effectiveness of sex offender programmes remains problematic. White et al's (1998) review of random control trial (RCT) studies of treatment efficacy reveals only three studies which conform to the Cochrane criteria for RCTs (see White et al, 1998). Only one of these studies (Marques et al, 1994) appears also to conform with the above-mentioned need to address a range of criminogenic needs relevant to sexual recidivism. The other two studies contrast particular approaches, which were not specifically tailored to meet the participating offenders' full range of needs and risk factors.

Nevertheless, the current review confirms the cautiously optimistic conclusions from Hall's (1995) meta-analysis. It highlights the need to integrate the clinical and economic benefits of group-based interventions, as in the UK Prison Sex Offender Treatment Programme (SOTP), with treatments which address important individual differences between sex offenders' risk factors and treatment needs.

For the highest risk sex offenders, those who present with the most disturbed backgrounds, psychopathic personality characteristics and extreme offending histories, we recommend a combination of the best features of the current prison and forensic mental health services, namely:

- A therapeutically oriented milieu combining expectations of behaviour change with personal support, and multidisciplinary oversight, monitoring and management of individual treatment plans
- A combination of group-based, cognitive-behavioural interventions, addressing criminogenic and personality factors relevant to participating offenders, with individual therapy as required (e.g. regarding the modification of deviant sexual arousal), and including anti-libidinal medication as a potential element of the treatment plan

Whilst recognising the need for long term RCT studies, it is important to acknowledge the practical and ethical problems with this approach. The literature strongly suggests the value of evaluating changes in dynamic risk predictors following treatment as well as meta-analyses of smaller scale outcome studies. To this we would add the increasing need for idiographic analyses which highlight the effect of treatment-offender interactions on treatment impact and outcome.

INTRODUCTION

The remit of the report is to review the literature on the nature and effectiveness of sex offender treatment excluding randomised control trial (RCT) studies, which have been separately reported by White et al (1998) with whom the present reviewers collaborated.

The Methodology Adopted

For the purpose of the present report the literature was reviewed with reference to the following areas:

- sexual recidivism studies
- sex offender treatment approaches
- studies of treatment impact
- studies of treatment outcome

A computer based search of the literature using the Cochrane system was made available for the purposes of the review by Mr Mike Ferriter. This formed the basis of the White et al (1998) review. In addition, independent searches of MEDLINE and PSYCHLIT were carried out. Additionally, search of the world wide web was undertaken. This resulted in over 24,000 references being identified as potentially relevant. A computerised literature browser was written by the second author specifically for this study in order to organise and prioritise the information available.

BACKGROUND

The last thirty years has seen an increasing awareness of the extent of sex offending, its impact on victims/survivors, as well as others less directly affected, and its presence within all sections of society. Work in the last ten years has extended our knowledge of sexual aggression and abuse within and outside families (Gilbert 1992; Worling 1995), women perpetrators (Lloyd, 1987; Grand, 1997), and juvenile/child perpetrators (Dozois, 1994; Bourke & Donohue, 1996).

In the United Kingdom, since 1985, the number of recorded sexual offences has risen at a similar rate to recorded crime in general, about 4% per year. By 1995, sexual offences accounted for less than 1% of all notifiable offences, and just over three-quarters of these were cleared up. The largest category of recorded sexual offence is indecent assault on a female (47.9% of total sexual offences), followed by unlawful sexual intercourse with a girl (10.5%), indecent assault on a male (9.6%) and rape (8.5%) (Home Office Criminal Statistics, 1995).

According to these statistics, 53.2% of sex offences are dealt with by imprisonment or youth custody, 23.4% by probation or supervision orders, 12.8% by fines, and 2.1% by other means, including the mental health legislation. 8.5% are totally or absolutely discharged (Home Office Criminal Statistics, 1995). Changes in the pattern of recorded sexual offences include an 11% per year increase in reporting and recording of rape over the last ten years, and introduction of the offence category "rape of a male" in 1994: there were 150 such offences recorded in 1995.

Estimates of the incidence of child sexual abuse, that is new cases over a specified period, indicate rates of approximately 1 per 1,000 of the population per year in a number of studies in the UK, Northern Ireland and the USA (Fisher, 1998). Estimates of the prevalence of child sexual abuse, that is cases present at any one time, figures ranging from 12-27% for female victims and 8-16% for male victims (Badgley, 1984; Baker & Duncan, 1985; Finkelhor et al, 1990). Russell (1984) estimated that less than 10% of sexual assaults are reported to the police and less than 1% result in arrest, conviction and imprisonment.

Current estimates suggest that approximately one in ten children will be sexually abused at some time during childhood (MacMillan et al, 1997; Morrison, Erooga and Beckett, 1990). Lifetime prevalence rates of rape are reported to range from about 5% to 44% (Resnick and Markaway, 1991; Schwartz, 1991). The fact that most sex offending is embedded in inter-generational social and family structures perpetuates the "the cycle of child sexual abuse" (Kauffman, 1988) and blurs simple boundaries between offender and victim.

Although the most likely effects of being sexually abused include heightened risks for a range of mental health, social and sexual problems in later life, it is also known that sexual perpetrators have a higher than normal probability of having themselves been sexually, physically or emotionally abused during childhood (Morrison et al, 1990; Waterhouse et al, 1994). It is important for treatment to address these childhood precursors of personality development and later sex offending as well as factors maintaining adult offending behaviour (Perkins, 1993; Marshall, 1996).

A Unified Approach

Those working in the area of sex offending have increasingly come to see their efforts as being complementary rather than in conflict. For example, offender profiling, aimed at assisting the police apprehend serial sex offenders, draws heavily on clinical work (Burgess et al, 1986; Perkins, Hilton and Lucas 1990). In addition, work with victims/survivors of sexual abuse feeds into treatment work with sex offenders, for example on the challenging of denial and development of victim empathy (Pithers, 1994; Salter, 1988), just as knowledge of sex offender risk factors can aid child protection procedures (Morrison, et al, 1990). Joint initiatives involving police, probation, child protection and therapy services testify to the fact that the whole is better than the sum of the parts when it comes developing coherent, comprehensive and effective approaches to the problem (Baker and Morgan 1993; Proctor and Flaxinton 1996; Badger 1998; Beech et al 1998).

Baker and Morgan (1993), in a survey of UK community treatment programmes for sex offenders, describe 63 group programmes in existence, each averaging 50 hours of treatment per offender. Proctor and Flaxinton (1996) reported that 1,907 sex offenders were being treated each year through the probation service. Houston

et al (1994) reported a survey of psychologists' work with sex offenders on behalf of the British Psychological Society. Most group-based treatment occurred in prisons whilst most individual therapy was conducted through the community forensic psychiatric/psychology services, Regional Secure Units and Special Hospitals.

SEXUAL RECIDIVISM

Almost all sex offender treatment programmes have as their explicit or implicit aim the reduction of sex offending from what it would have been without treatment. It is therefore important to consider the extent and nature of sexual recidivism without treatment as a baseline against which to judge the effects of treatment.

Different studies have used different criteria for sexual recidivism. Marques et al (1994), for example, uses convictions and arrests for sexual offending. Rice and Harris (1997) use both sex and violent arrests, reconvictions or rehospitalisations on the basis that some sexually motivated assaults lose their sexual label in the course of prosecution: sexual homicide would, for example, be legally classed as murder or manslaughter. Others have used even wider definitions. Maletsky (1998), for example, includes being charged with a sexual offence, dropping out of treatment, "failing" a polygraph (lie detector) test or producing a sexually deviant penile plethysmograph (PPG) result as indices of treatment failure.

The PPG is a direct measure of an offender's relative sexual arousal to illegal and legal sexual activity via an unobtrusive clip which he puts on his penis whilst he views slides/videotapes or listens to audiotapes depicting the relevant illegal scenario (e.g. rape) and a legal alternative (eg consenting heterosexual activity). There are guidelines for the appropriate and ethical use of PPGs. In the UK, these were produced by the British Psychological Society (1994).

Janus and Meehl (1997) report a 25-40% lifetime sexual re-offending rate. Prentky et al (1997) describe a follow-up period of 25 years with a subject pool of 251 sex offenders, in which 39% of the 136 rapists and 52% of the 115 child molesters in the study were charged or convicted of a sexual offence over the 25 year follow-up. Soothill and Gibbens (1978) estimated a 23% reconviction rate over 22 years.

In a methodologically interesting study, Doren (1998) suggests that the results from a number of recidivism studies are remarkably similar when the data are plotted onto equivalent survival curves (e.g. for convictions, arrests etc) over very lengthy follow-up periods. Survival curves of this kind can therefore provide baselines against which to assess the effects of various dynamic predictors and/or the effects of various kinds of treatment interventions

Predictors of Sexual Recidivism

Actuarial associations between sexual recidivism and characteristics of offenders and offending histories have been identified by a number of researchers. Such predictor variables can be classified as:

- Static – historical and unchangeable, such as previous offence history
- Dynamic (stable) – potentially changeable but relatively stable, such as personality characteristics
- Dynamic (acute) – features which can change rapidly such as mood or intoxication

In the UK, Fisher and Thornton (1993) reported a simple but powerful algorithm for predicting sexual recidivism for convicted sex offenders which combined four elements:

- Any previous sexual convictions
- Four or more previous convictions of any kind
- Any conviction for non-sexual violence
- Sexual convictions involving three or more different victims
- High score on the Psychopathy Checklist – Revised (PCL-R) (Hare, 1991)

Hare's Psychopathy Checklist in its revised form (PCL-R) is a robust and well-researched instrument which combines record analysis with a structured interview (Hare 1991). It purports to measure

- interpersonal and affective traits (Factor 1)
- socially deviant lifestyle (Factor 2)

In the USA, Abel et al (1988) found five predictive factors for child molesters:

- Assaulting both boys and girls
- Committing both contact and non-contact abuse
- Assaulting both family and non-family members
- Failure to accept increased communication with adults as a goal
- Being divorced

In Canada, Rice, Quinsey and Harris (1991) found five predictors for extrafamilial child molesters followed up for an average 6.3 years of opportunity to offend:

- offender ever having been married
- previous prison admissions
- previous property convictions
- diagnosis of personality disorder
- deviant sexual preference for children (using PPG)

Rice, Harris and Quinsey (1990) found three predictors of sexual recidivism for 54 rapists assessed in a forensic hospital followed up for an average 3.8 years:

- previous sexual offences
- previous violence offences
- deviant PPG results

Hanson & Bussiere (1998) report a meta-analysis of sex offender recidivism from 98 reports in which they collated studies totaling 28,805 sex offenders and 165 predictor variables. They examined rates for sexual, violent and total re-offending after 4-5 years in the community. The criteria for re-offending were mixed across the studies sampled and included re-admission to custody, self-report and charges made against the offender.

Sexual re-conviction rates were 18% for rapists and 13% for child molesters, compared with (non-sexual) violent convictions of 24% for rapists and 10% for child molesters. General recidivism rates were 47% for the rapists and 37% for the child molesters. Hanson and Bussiere argue that their figures are likely to underestimate the true rates of re-offending.

A common and robust finding with studies of sexual recidivism is that extra-familial child molesters (particularly against boys) and rapists are the most likely to re-offend. Hanson and Bussiere's (1998) meta-analysis again indicated that the best predictors of sexual recidivism were static variables relating to pattern and type of previous offending. Of the dynamic predictors which could at least potentially be treatable, the strongest predictors of sexual reoffending were:

- deviant sexual preferences and
- failure to complete treatment.

Hanson and Harris (1998) compared predictors of sexual re-offending amongst 208 sexual recidivists and 201 non-recidivists from all regions of the Correctional Services of Canada. As well as the anticipated differences in static historical variables, such as diverse types of victims and juvenile offences, the recidivists more often manifested stable dynamic characteristics including the predicted anti-social lifestyle and psychopathic personality. On acute dynamic factors, which can change rapidly (e.g. mood or intoxication), the recidivists more often showed:

- increased anger and distress prior to offending
- poor social supports
- poor self management strategies
- difficulties coping with supervision.

In follow-up studies where a range of clinical assessments had been undertaken (Rice, Quinsey and Harris 1991; Rice and Harris, 1997; Hanson and Harris 1998; Quinsey, Chaplin and Carrigan 1980; Barbaree and Marshall, 1988; Maletsky, 1993; Marques et al, 1994), a strikingly consistent finding emerges that the worst survival rate for sex reoffending are associated with:

- high psychopathy score`s as measured by Hare`s PCL-R and
- deviant sexual arousal as measured by PPG

In summary sexual reoffending is associated with:

- static predictors within the criminal history – number and type of offences and victims
- stable dynamic predictors, most powerfully psychopathic personality as measured by the PCL-R, and deviant sexual arousal as measured by PPG
- acute dynamic predictors, notably negative emotional states, poor interpersonal/self management and poor social support

Clearly, these results highlight a major difficulty in evaluating the effects of reported treatment programmes, in that those programmes which omit to specify, and control for these static and dynamic predictors of sexual recidivism confound the effects of these predictors with the effects of treatment.

SEX OFFENDER TREATMENT

Studies which look specifically at the efficacy of treatment for sex offenders are scarce and are diverse in both methodology and the therapeutic techniques used (Maletsky 1998; Nicholaichuck 1998; Hall 1995; Fedoroff et al. 1992; Matek 1986). In the following section the diversity of therapeutic interventions is summarised.

Surgical Treatments

The use of surgical techniques in the treatment of sex offenders has been reported over the years although such procedures are now very rare. A major problem with surgical techniques is the ethics of ablating healthy tissue and the resulting side effects such as nausea, thrombosis and gynecomastia. Coupled with this is the fact that the procedures are irreversible.

Sturup (1968, 1971) reported a 1% reconviction rate for 900 sex offenders followed up for 30 years after surgical castration, and similarly low reconviction rates have been reported by Heim and Hursh (1979) and Ortmann (1980). However, a disturbing finding from Sturup`s (1968) study was that 33% of his castrated offenders went on to commit non-sexual violent offences.

Another surgical technique that has been rarely used is stereotaxic hypothalamotomy although this has been roundly criticised both for the credibility of the underlying scientific model and on the poor ethical grounds upon which the technique was usually carried out (Rieber and Seigush 1979).

Pharmacological Treatments

A number of studies have examined the value of pharmacological interventions for sex offenders. The agents used range from anti-androgens (Bradford 1990) to serotonergic drugs (Pearson 1990). Emory, Cole and Meyer (1992), for example, present a 10-year evaluation study of DepoProvera. They conclude that the treatment radically lowered the sexual interest of their patients and proved very useful in allowing therapeutic engagement. In an interesting control trial, Fedoroff et al (1992) carried out a trial with Medroxy-Progesterone Acetate (MPA). Their findings revealed that 15% of the MPA users re-offended as compared to 68% of the non users.

Clearly, anti-libidinal medication can be helpful, given the offender's informed consent and ability to withdraw from the medication. However, it is unlikely that such treatment alone will meet all the needs of most sex offenders. Many sex offenders commit their offences for motives other than sexual gratification, and simply reducing the libido for these offenders will not necessarily be sufficient to control their offending. Indeed, a great reliance is placed upon the offender's compliance with treatment and Wiederholt (1992) makes the obvious point that these treatments are only effective while the drug is being taken. Nevertheless, the combination of reduction in anxiety and sexual arousal does have a useful effect in making the patient more susceptible to psychological treatment (Coleman et al 1992; Emory et al 1992).

Psychological Treatments

Psychological treatment of sex offenders can be broadly divided into (1) helping the offender gain insight into his/her acquisition of offending behaviour/personality, (2) helping to control or remove those influences which maintain the offending pattern and (3) helping to prevent relapse into re-offending when under stress/in high risk situations in the community. Recent literature reflects a consensus amongst therapist-researchers is that all three areas are important.

Summarising the work of, particularly, Marshall (1994, 1996), Thornton et al (1996) and Ward & Hudson (1998), an overview of sex offenders' criminogenic needs, i.e. factors likely to contribute to reoffending if present and untreated, are:

- Deviant sexual arousal/sexual pre-occupation
- Weak commitment to avoiding re-offending
- Cognitive distortions which support offending
- Limited/inappropriate reactions to victim distress
- Impulsive, antisocial lifestyle
- Difficulty recognising personal risk factors
- Difficulty generating/enacting coping strategies for personal risk factors
- Deficits in (personal/interpersonal) problem solving skills for risk factors
- Social support for sex offending
- Poor emotional control
- Emotional loneliness
- Limited/inappropriate intimacy skills (e.g. dealing with disclosure, jealousy etc)
- Dysfunctional schemas, linked to early attachment experiences (e.g. suspiciousness)
- History of drug and/or alcohol abuse

Approaches to treatment might include skills-based interventions (e.g. role-play, anger management, sex education), behaviour modification (e.g. aversion therapy, orgasmic reconditioning, masturbatory satiation), insight/motivation-orientated interventions (e.g. group therapy, psychodynamic work, creative therapy). The literature suggests the importance of incorporating different treatment methods across a range of treatment targets in order to meet the individual treatment needs/risk factors presented by offenders.

There is good evidence from a number of studies that the above-mentioned dynamic risk factors interact with one another. Thus, angry mood can amplify deviant sexual arousal and cognitive distortions can amplify angry mood (Yates, Barbaree and Marshall 1984).

Approaches to the psychological treatment of sex offenders has changed over time. The focus has shifted from treatment aimed at offenders gaining insight into why they perpetrate sexual crimes, that was psychotherapeutic in style (Stava 1984), to a more structured cognitive behavioural approach (Salter, 1988; Marshall, Laws and Barbaree, 1990; Maletsky, 1991) focusing on a range of risk factors for future offending. More recently the cognitive behavioural model has adopted relapse prevention techniques from drug and alcohol research, and applied it to sex offender intervention through the development of individually tailored programmes (Laws 1989).

There is little scientific evidence showing a positive effect of *dynamic psychotherapy* alone with sex offenders and this approach has increasingly given way to behavioural and cognitive-behavioural approaches to the problem. However, Stava (1984) reports some benefit of the dynamic approach and work with fantasy has been shown to be useful when used in combination with other forms of psychotherapy (Matek 1986).

Purely *behavioural approaches* include masturbatory reconditioning (Laws and Marshall 1991), covert sensitisation/aversion (Marshall and Eccles 1991; Lockhart et al 1989; Carlson and Noseworthy 1989; Holmes 1991) and satiation therapy (Abel and Blanchard 1974). However, the research on the efficacy of such techniques is conflicting and equivocal. In an early study on satiation therapy with sex offenders, Abel and Blanchard (1974) subjected patients to 20 hours of masturbatory satiation and reported success in reducing deviant arousal patterns. Marshall (1979) argues that such methods may reduce deviant sexual interest and they are particularly useful when aversion therapy fails.

Cognitive-behavioural treatment programmes have tended to draw from both:

- empirical research on criminogenic factors associated with sex offending (e.g. Thornton and Hogue, 1993), which identifies what treatments are likely to be relevant and effective
- multi-modal functional analyses of individual offenders' contemporary patterns of offending (e.g. Perkins, 1991, 1993), which helps tailor treatments to the specific patterns of offending of individual offenders

Multi-modal functional analysis of offending behaviour is a useful framework within which to assess risk and treatment need. The specific antecedents and consequences of sexual offending are identified on various (multi-modal) levels of functioning, e.g. the "BARE-PCS" model (Perkins, 1991) which summarises: behaviour, attitudes, relationships, emotions, physical state, cognitions, and sexual arousal prior to, and after offending. A combination of data collection approaches ensures that as full a picture of the offending cycle as possible is obtained, typically from official reports, interviews, behavioural observation, psychometric and psychophysiological assessment.

The treatment literature describes interventions directed towards the modification of offenders' *denial and minimisation* – of the acts committed, sexual motivation, harm to victims and need for treatment – which has been tackled variously by the use of official documents (victim statements etc), reinforcement of offenders' disclosure, group discussion and challenge, PPGs and polygraph "lie detectors" (Salter, 1988; Barbaree, 1991; Perkins, 1993; Marshall, 1996; Maletsky, 1998).

Modification of the *cognition distortions* associated with offending behaviour has been addressed in many programmes through detailed psychometric assessments, interviewing and group discussion, didactic input on the nature of cognitive distortion, guided practice in the identification and self management of distorted thinking, group discussion, challenge and support, and cognitive restructuring (Salter, 1988; Marshall, Laws and Barbaree, 1990; Maletsky, 1991)

The importance of a lack of general, or *victim empathy* in sexual offending has led to the development of interventions designed to address this issue. Pithers (1994) and Marshall and Eccles (1998) have developed awareness-raising and skills-developing programmes. These involve components aimed at offenders' understanding the effects of sexual offending on victims/survivors (through discussion of evidence, videotape material etc), offenders addressing the effects of their own offending (through discussion, preparation of written material, role-playing etc).

Cognitive-behavioural training in anger management, social skills and assertiveness training have all been used with varying degrees of success with sex offenders who lack these capacities in ways which have contributed to their offending. More recently, relationship therapy, training in intimacy skills and the enhancement of self esteem have been identified as appropriate treatment targets (Marshall and Barrett 1990; Marshall, 1996; Solicitor General Canada 1990; Sampson 1994; Marshall and Eccles 1998).

Pithers et al (1988) and Laws (1989) imported the concept of *relapse prevention* into the area of sex offender treatment from work with drug and alcohol addiction. Those working in this area have known the importance of identifying, in advance of treatment termination, factors within the lives of those addicted which would be likely to precipitate a relapse into further drug or alcohol abuse. Laws and Pithers have developed some of the basic relapse prevention ideas (for example high risk situations, social pressure etc) into a systematic and integrated approach within a broadly cognitive behavioural framework of assessment and treatment for sex offenders.

Some success has been reported with *family therapy* (Ingersoll and Patton 1990). In a small scale study Mazure and Michael (1992) were able to demonstrate that deviant sexual interest of 10 adolescent offenders showed improvement over 6 months. This involved the participation of the family in therapy and homework. Clearly, this kind of treatment depends very much on the nature of the family and while Ingersoll and Patton (1990) suggest that it may be useful with adults, it is more commonly used with adolescent offenders. Further work may be needed in this area especially in view of the finding that the treatment of sex offenders early on in their offending careers is most effective (Abel et al 1988; Wodarski and Whitaker 1989; Holmes 1991).

Recent work has suggested the relevance of *schema-focused therapy* for sex offenders but this is in its early stages of development. This approach stems from findings that sex offenders have schemas, or ways of viewing the world, which stem from early attachment experiences and contribute to offending behaviour. Malamuth and Brown (1994) found a sample of rapists to have "suspicious schemas" in which women's hostile behaviour was misinterpreted as seductive and seductive behaviour was viewed with suspicion.

Nevertheless, evaluations of the effectiveness of sex offender treatments present a confused and conflicting picture. Much of the long-term literature comes from the USA and Canada where large treatment and evaluation programmes have been well established (Prentky et al 1997; Doran 1998; Hanson and Bussiere 1998; Janus and Meehl 1997). Much less research exists describing the UK position (Soothill and Gibbens 1978) and it is important to note that the findings of this review will inevitably involve a degree of extrapolation from overseas research

Treatment Delivery

Treatment for sex offenders can be delivered using either group work or individual sessions. Group work with sexual offenders is widely reported the literature as being an effective context for treatment (Cowburn 1990, Cook et al 1991, Beckett et al 1994). An obvious advantage to group work is its potential cost-benefits in terms of time and money. In addition, there are clinical reasons for adopting a group work approach.

Being in a group is fundamentally about interaction with other people, and this interaction can be employed to facilitate change. Consequently, the dynamics between participants will have an impact on what each group member learns from the experience. Group work can also reduce the risk of a therapist entering a collusive relationship with the client, as other offenders with similar difficulties are more likely to be effective in challenging each others thinking and behaviours.

The group process reflects what happens in society when "outsiders" have a view on what has happened. It may help the offender to become less secretive, begin to deal with previously unresolved guilt, anger or anxiety, and move towards more socially acceptable behaviour. With the support of the group, individuals within the group environment can feel safe to practice and discuss the new skills and ways of thinking they have been developing during therapy.

Finally, levels of motivation may also be highlighted through participation in a group, as participation necessitates some degree of public acknowledgement that there are problems which need to be addressed, and behaviour which needs to change. The clinical advantages of group work are neatly summarised by Erooga et al (1990). They comment that:

"Isolated working [with child molesters] replicates to some degree the very secrecy within which the abuse was developed and sustained...working individually...makes it more likely for the worker to become enmeshed in the perpetrator's view of the world and his abuse. Groupwork

provides the opportunity for co-working...it enables each worker to sound out issues with colleagues and avoids collusion with the distorted thinking that every perpetrator presents” (p.175).

The decision as to whether a group environment is the best treatment method for a particular offender is a matter of clinical judgement. For example if someone is demonstrating high levels of denial, hostility and manipulateness, this may be a destructive influence in a group. It may be that group work is best delivered to offenders who have already begun to address some aspects of their offending (Erooga et al 1990).

Marshall and Eccles (1998) emphasise the need for a graded and selective therapeutic programme which follows the offender through the prison and hospital systems in order to optimise rehabilitation and movement into community programmes. However, community programmes are not designed to correct serious flaws in dangerous offenders and, for this reason, Marshall and Eccles (1998) advocate the availability of backward movement should this be necessary (Marshall and Eccles 1998). The repertoire of possible approaches is large although evidence for their efficacy is seldom unequivocal.

There is some tension between tailored treatments, based on the idiographic formulations of individual offenders' sex offending patterns, and group-based treatment programmes, designed around general criminogenic factors likely to be relevant for large numbers of offenders. Forensic mental health services have tended to operate through individualised treatment plans, delivered by a multi-disciplinary clinical team, led by a psychiatrist, through the Care Programme Approach (CPA). The prison system, by contrast, operates through a psychology-led, centrally designed group programme, which is delivered by prison and probation staff in accordance with a manual and with oversight from a local prison psychologist “treatment manager”.

The British Sex Offender Treatment Programme

The British Prison Service has, over the last ten years, been at the forefront of developing a largely group-based treatment programme for sex offenders in an attempt to reduce recidivism (Thornton and Hogue 1993), and this has led to the development of a national Sex Offender Treatment Programme (SOTP), which is now the largest of its kind in the world.

The Prison Offending Behaviour Programmes Unit, which manages the SOTP, has approached these issues by establishing 10 criteria for treatment programme accreditation which it applies to its own Sex Offender Treatment Programme (SOTP). These are that an accredited programme should have:

1. An explicit, empirically-based model of change, drawing from the relevant literature.
2. Interventions which target criminogenic need.
3. Treatment methods to which offenders in the programme will be responsive, e.g. which engage their active participation.
4. Treatment methods which have been shown to be effective with the types of offenders in the programme.
5. Treatment methods which provide offenders with skills needed to avoid future offending.
6. A range of treatment targets that are relevant to avoiding future offending.
7. An amount, intensity and sequencing of treatment (“dose”) appropriate to the seriousness and persistence of offending behaviour.
8. Appropriate arrangements for future through care including reports of treatment impact and future risk
9. Ongoing monitoring of staff selection, training and support, treatment integrity and delivery.
10. Ongoing evaluation of treatment impact on offenders and staff, and long term effects on recidivism.

These requirements are managed by a series of audits and inspections which are overseen by a specially constituted international panel of experts.

TREATMENT EVALUATION

The evaluation of sex offender treatment is considered under four main headings, of which the last three are developed for the purposes of this review:

- Treatment integrity
- Treatment impact
- Treatment outcome

Treatment integrity is the extent to which treatments are delivered in accordance with how they were designed to be delivered. This is most easily evaluated where therapists work from a written manual and where interventions can be independently and directly assessed through, for example, access to videotapes of the therapy sessions and samples of written work produced by the offenders in treatment.

Treatment impact describes the extent to which treatments have had an effect (or impact) on aspects of the offenders' behaviour which they would be predicted to modify according to the model of treatment being delivered. For example, successful sexual arousal modification treatments should reduce deviant PPG profiles. Assessments of treatment impact should ideally be as independent as possible from the means of treatment delivery. For example, a verbally delivered therapy addressing low empathy for victims should not rely solely on changes in offenders' verbal behaviour about victim empathy, but should also include reassessments on, for example, validated psychometric tests of attitudes known to relate to victim empathy or behavioural tests of empathy skills.

Treatment outcome is the extent to which treatment(s) have improved long-term "survival rates" (reduced re-offending) compared with not receiving treatment. The complexity of this task flows from the previously summarised range of predictors of sexual recidivism and range of treatments needed to comprehensively address offenders' criminogenic needs. A seminal work by Campbell and Stanley (1966) eloquently summarised the range of outcome evaluation methodologies typically used in behavioural research, ranged on a continuum from the most, to the least powerful.

Treatment Impact Studies

Treatment impact studies describe the effects of treatments on a number of parameters available for measurement before and after intervention, which are relevant to the aims of the intervention. For example, an offender's level of social competence in a role-play might be measured before and after social skills training.

The need for impact studies in sex offender treatment programmes is:

- to establish if a specific intervention is having its predicted immediate effects,
- to monitor how such immediate treatment effects survive over time or movement from one environment to another
- to enable such impact measures to be examined in relation to subsequent recidivism

Beckett et al (1994) carried out a systematic impact evaluation of community based sex offender treatment programmes in the UK (the STEP project) on behalf of the Home Office. They used a constructed and validated set of psychometric instruments (the Sex Offender Assessment Pack) to measure psychological dimensions relevant to sex offending. These were:

- Cognitive distortions
- Victim empathy
- Personality
- Sexual deviancy
- Motivation for treatment

Findings indicated a number of variables that appeared to have an effect on treatment outcome, which included:

- Level of sexual deviance present in individual participants
- Length of treatment programme
- Type of offences committed by participants

- Skill/training of therapists

Beckett et al found that, whilst overall short term programmes demonstrated positive outcomes for sex offender treatment, 60% of participants were classified as low deviancy offenders. Offenders who were considered through assessment to be highly deviant prior to therapy showed no success in short term treatment programmes. However of this group, 60% in longer term residential programmes showed a positive treatment effect. Given the effectiveness of the more intensive treatment with highly deviant men, Beckett et al recommended that a small number of specialised residential programmes are set up for this group of offenders.

Beckett et al reported that treatment success was higher amongst participants who had committed offences against children, and recommended that specific therapy programmes for rapists should be developed. However it is worth noting that only 5% of rapists participated in the study, suggesting a possible need for further comparative studies looking at treatment need, engagement and outcome for these two distinct groups of offenders.

Beckett et al expressed a concern that therapists delivering the programmes were mixed in terms of experience and training in the psychological principles underpinning the therapy. It was therefore recommended that all facilitators of programmes be trained and supervised to avoid these differences effecting treatment success in the future.

Beech et al (1998) carried out a similar treatment impact evaluation of the UK Prison SOTP immediately after treatment and nine months later. Significant positive psychometric changes had occurred in 67% of the sample of 77 offenders in the areas of

- Admitted sexual offending
- Reduced offence-related cognitive distortions
- Relapse prevention knowledge

Offenders who showed higher levels of “deviancy”, as measured by high levels of pre-disposing personality factors and offence-related cognitive distortions, showed less improvement than offenders whose deviancy and denial of deviancy were low. Interestingly, whilst positive changes were maintained at nine month follow-up for offenders who were still in prison, similar progress was only maintained for those in the community who had received the 160 hour as opposed to the 80 hour treatment programme.

Treatment Outcome Studies

Outcome studies of interventions with a range of offending behaviours have shown moderate and reliable treatment effects where criminogenic needs are targeted, as opposed to little or no treatment effects where non-criminogenic needs are targeted in treatment (Gendreau, 1996).

There is research evidence suggesting that a range of psychological interventions with sex offenders can be effective in reducing the likelihood of a re-offence (Maletzky 1980, 1998; Ingersoll and Patton 1992; Hall 1995). There is also a growing body of evidence suggesting that effective treatment for sex offenders depends on being able to address the full circumstances of the individual offender’s offending pattern – past, present and future.

Marshall and Barrett (1990) examined a controlled aversive treatment programme carried out at the Oakridge Mental Health Centre which resulted in a greater number of the treated offenders (37%) re-offending than those in the control group (31%). On the other hand Maletzky (1980) was able to demonstrate that aversive therapy on 38 child molesters led to only a 10.5% recidivism rate over 3 years. The main problem in evaluating such studies is that of the comparability of subjects’ risks of re-offending without treatment.

Rice, Quinsey and Harris (1991) reports that neither a behavioural treatment programme for deviant sexual interest nor social skills training and sex education reduced the sexual recidivism of 136 child molesters followed up from a maximum security psychiatric hospital.

Maletsky (1998) reports up to 25 year follow up on 7,275 sex offenders having passed through his treatment facility. Most of these have been child sexual abusers but the sample also includes 448 rapists and 1604 exhibitionists. Average treatment length was 13-14 years, which comprised a 12 week orientation group, followed by (mainly) individual therapy using a range of cognitive behavioural interventions targeted at criminogenic factors.

Maletsky adopted a stringent definition of “treatment failure” which included, in addition to sexual reoffending:

- being charged with a sexual offence
- dropping out of therapy
- deviant PPG result
- failing a polygraph test

The poorest survival rates with respect to the offenders main offence categories were, in line with many other studies, for the rapists, followed by the extra-familial homosexual pedophiles, followed by the exhibitionists, followed by the extra-familial heterosexual pedophiles. The best survival rates were for child sexual abuse within the family. No control groups are reported, however, and conclusions cannot easily be drawn.

Quinsey, Khanna and Malcolm (1998) report on a 3.7 year average follow up of 488 rapist and child molesters treated in a cognitive-behavioural treatment programme. After controlling for static variables which predicted re-offending, the treatment programme was associated with increased sexual recidivism, with clinical indices of improvement having no relationship with recidivism.

Nicolaichuk (1998) reports a control group follow up of 360 sexual offenders who received group-based cognitive behavioural treatment in Saskatoon. 54% of the sample were rapists, 19.5% pedophiles, 14.5% mixed offence patterns and 12% incest cases. The treated subjects were matched on a number of relevant demographic and criminological factors with cases from records kept before the Saskatoon treatment programme began.

Nicolaichuk reports 15 year survival curves for the treated and untreated sex offenders. A significantly smaller proportion of the treated group had sexual reconvictions 17.6% compared with 29.9% of the control group, as well as having significantly fewer readmissions 53.2% as opposed to 66% of the control group. Nicolaichuk also demonstrated that the treated group had a lower so called “CCP slope” than the control group, the CCP slope being a measure of the seriousness of offences which were committed as measured by number of, and sentence lengths for convictions received.

Furby et al’s (1989) review of sexual offender recivism found little evidence for positive effects of the treatment studies included. Hall (1995) found no effect on recidivism of behaviour modification but did find medium sized effects for cognitive-behavioural and hormonal treatments, although the overall treatment effect from the meta-analysis was lowest for studies using RCT or matched control groups.

McGrath’s (1991) review suggests that sex offender treatment is more successful where offenders:

- Acknowledge and accept responsibility for their offending
- Consider sex offending to be a problem they wish to stop
- Willingly enter and participate in treatment

White et al’s (1998) RCT review describes the Marques (1994) SOTEP cognitive-behavioural treatment and evaluation programme, which is running an RCT evaluation design. A recent progress report has been received (Marques,1998), which sets out recidivism rates over an approximately 5 year follow-up period. Offenders who completed treatment currently have the lowest sexual recidivism rate (10.8%), compared with 13.8% and 13.2%, respectively, for the volunteer and non-volunteer control groups. However, the highest recidivism rate of 18.9% is associated with the treatment drop-outs.

This finding highlights again the need for studies to describe and track treatment drop-outs (and treatment refusers) very carefully, both in terms of later recidivism and issues which would need to be addressed to facilitate treatment relevant to their dynamic risk factors and lack of commitment to treatment.

TREATMENT EVALUATION METHODOLOGY

The review so far has concentrated upon substantive research findings from a disparate and heterogenous literature. Differences exist in the nature of the samples examined, the therapeutic methods employed and the research designs applied. From this metaphorical salad it would be useful to be able to draw conclusions of a comparative nature informing the question of which therapeutic technique works best with which groups of offenders. However, although some conclusions can be drawn they are weakened by a dearth of directly comparable studies.

The problem of sex offending deserves a robust examination of 'what works' (Hollin 1995) and this needs to be based upon a clear and focused scientific literature. The general finding by Ogles and Lunnen (1996) that 'research has had a minimal impact on direct service delivery' is of some concern and may reflect the way in which it is disseminated to the clinical community. One guiding principle of evidence based practice is that the therapy be viewed as a form of experiment in which, at the completion of therapy, the experimental hypothesis of a treatment effect is assessed in view of a null hypothesis on no treatment effect. Given the wide variation in therapeutic approaches and their concomitant assessment and evaluation philosophies, this principle may not produce a simple and tightly focused literature for the interested clinician.

Randomised Controlled Trials

A widely held view in clinical research is that the Randomised Controlled Trial is the only effective way to arrive at scientifically rigorous evaluation of therapeutic efficacy (White et al 1998; McConaghy 1995). However, in the sex offending area, this position is not without its critics (Pithers 1993; Marshall and Pithers 1994) and a debate continues into the real-world applicability of RCTs for all areas of psychological therapy (Persons and Silberschatz 1998).

Randomised Controlled Trials (RCTs) are specifically designed to answer the question of whether treatments A and B are equally effective in treating condition X (Chambliss and Hollon 1998). As such RCT designs should aid the clinician in making decisions about the efficacy of competing or alternative treatments. In medical treatment research and drug trials RCT is the almost single method of choice. This is supported by ethical argument which argues that treatments should not be applied until it has been shown that they are beneficial in comparison to the alternative(s) (Klerman 1990; McFall 1991). However, an alternative argument was highlighted following the RCT trials for the treatment of HIV positive people with AZT. This states that if there is good reason to suspect the benefit of a treatment regime it is unethical to deprive patients of it for the purpose of having a comparison group (Persons and Silberschatz 1998). This argument has led to a re-emphasis on sequential designs although due to the indeterminate nature of sex offender treatment outcomes sequential strategies are not indicated in this context.

The scientific strength of the RCT as a research design is the fact that patients are randomly assigned to treatments A or B, however, in actual practice this may also be its weakness because sex offender treatment programs draw their cases from a relatively small population. Randomisation works most effectively when the researcher is free to sample from large populations. As the population and samples become small, randomisation requires that the cases are more homogenous because the presence of outliers (idiosyncratic patients) will have a biasing effect on the analysis that is not controlled by random assignment. However, the heterogeneity of the sex offending population is well attested (Vaughn and Sapp 1989; Wodarski and Whitaker 1989; Pfafflin 1992).

As White et al (1998) report, only three published studies were identified which utilised randomised control trial (RCT) methodology in the area of sex offender treatments, none of which provided clear evidence of treatment efficacy. What is noticeable about these studies is that the treatments reported:

- lacked a sufficiently long post-treatment follow-up period (Marques et al, 1994), or
- lacked a sufficiently broad range of interventions or a sufficiently tailored set of interventions to be likely to meet the treatment needs of the subjects (McConaghy et al 1988), or

- lacked specificity of subjects or treatments to generate confidence that interventions met treatment need, although having an adequate (10 year) follow-up period.

Thus, in much clinical work and certainly in sex offender treatment outcome research the use of RCT designs may be viewed as a kind of unattainable holy grail for, while the design is scientifically optimal, the real-world practicalities do not often support its use. It is perhaps for this reason that there are so few RCT studies looking at sex offender treatment outcomes.

Alternatives to RCT designs are more naturalistic studies which lack the power of randomisation as a means of controlling for extraneous effects. Nevertheless, provided ample rigour is employed there is no reason why such procedures cannot provide valuable information to the therapeutic community. Indeed, it is useful to view scientific progress as a cumulative process (Guttman 1971) drawing on many sources. This emphasises the need for continual eclectic review of any particular area rather than relying on a few RCT studies which, by the laws of chance, may ultimately prove to be misleading.

Non-RCT studies are mainly associated with treatment delivery services in prison, probation or forensic mental health settings and, as such, they are targeted very much at the clinician/practitioner literature. The approaches used have grown over time in the sophistication of their theoretical underpinning and, linked to this, in the range and sophistication of their interventions.

Two broad themes emerge in the way these studies have developed:

- the targetting of factors known from other studies to be associated with sexual recidivism (“criminogenic needs”)
- the tailoring of interventions to take account of the particular features of particular types of offenders in particular types of treatment

Hanson (1997) argues that an effective treatment evaluation strategy should combine three types of study:

- Large, multi-centre RCTs
- Meta-analyses of smaller studies
- Changes in dynamic factors associated with sexual recidivism

Methodological Issues

In trying to draw together a general view of treatment efficacy from the literature a number of confounding methodological issues emerge. We mention six areas which are particularly problematic:

1. There are individual differences between offenders which mean that not all potentially relevant treatments will be applicable to all offenders, e.g. a compensatory type rapist may need interventions for cognitive distortions and victim empathy but not for deviant sexual arousal, whereas a sadistic type rapist may be made worse if empathy work is undertaken and heightens the sadistic sexual arousal which may need to be a major focus for treatment. It was very rare to find fine distinctions between the offenders, most studies being content to simply distinguish rapists from child-molesters
2. Following from this, different reoffending base-rates for different types of sex offender can confound interpretation of follow-up data. It is clear that base-rates are not known with any precision since those studies that look at this problem use different criteria for reoffending and different classifications of sex offenders. From the UK perspective it is important to note that most base rate work has been carried out in the US or Canada. There is good reason to suppose that socio-cultural differences may moderate reoffending rates in different cultures.
3. Where dynamic factors such as cognitive distortions and deviant sexual arousal interact, the timing of, and emphasis given to different group-based interventions may have different effects on different offenders.

4. Following from point 3, outcome analysis which rely on comparisons between relatively heterogenous groups may miss important changes within individual subjects. The problem of extrapolating from studies which use aggregated data is often overlooked. However, the clinician, although able to draw very general conclusions from such studies, is essentially working in an idiographic context in which treatment-individual interaction is the most pressing concern. Outcome studies need to be judged by both experimental and clinical criteria (Risley 1970; Wolf 1978).
5. A further issue which complicates matters is the very practical one of “treatment drift”, i.e. the gradual shift in treatment delivery from what was originally designed towards what individual clinicians judge to be better or else drift into doing for other reasons. This lack of “treatment integrity” undermines evaluation through a false assumption that one type of treatment is being evaluated when another (unspecified) is actually going on.
6. Given the need for long term follow-up of sex offenders to achieve usable data (Soothill 1976), good or bad results many years after treatment are difficult to link back to the components of treatment unless these components have been accurately described and delivered (treatment integrity) and their effects on offenders at the time (treatment impact) are appropriately and accurately measured.

As indicated above most research paradigms employed in this literature rely upon questions being asked at a general or normative level in which aggregated data from different groups of individuals is compared. Typically, linear models such as Regression/ANOVA/ANCOVA are employed for data analysis. The simplistic application of these techniques can be problematic on a number of levels. Perhaps the most important problem for real-world research is the assumptions that are required about the data. These include assumptions about the distributions of the measures taken, the linearity of relationships and the independence of predictor variables.

More sophisticated approaches may be applied to overcome some of these problems (Hand and Crowder 1996). These may include Survival Analysis (Kalbfleisch and Prentice 1980; Doren 1998), Multistate Analyses (Hartman et al, 1997) and Negative Binomial/Poisson Modelling (Lawless 1987). All of these techniques would seem to be appropriate for use in Sex Offender Outcome research but very few of the studies reviewed demonstrated a particularly sophisticated treatment of the data.

A second drawback of the general approach is that information on individual differences is lost because the emphasis is upon the difference between groups which are treated as if they are homogenous. Indeed, individual differentiation is treated by many techniques as if it is error variance. Where clinical assessments are the measures of interest it is typical to assess the patient prior to treatment and then again afterwards and to compare measures (usually some form of crude aggregate score) to evaluate change. Most pre and post assessments are normative but clinically it is the idiographic measures that are most useful because they indicate the change within a patient. Biosignal techniques such as PPG should be used in this idiographic way (Perkins 1993), and a number of other clinical assessment techniques, such as repertory grid and Multiple Card Sorting (Houston 1998; Canter, Brown and Groat 1985), have been developed for this purpose. These procedures are being increasingly used in therapeutic practice and evaluation but, apart from PPG, not yet in Sex Offender work. One advantage is that they allow us to target the individual, which is the clinicians most important unit of analysis, as opposed to the group, which is the researcher’s primary focus of analysis.

These idiographic techniques acknowledge the clinician’s need to move away from the ubiquitous assumption of homogeneity within offender groups and look more closely at the individuals who benefit from different types of treatment. There is almost no idiographic work reported in the literature on sex offender treatments (for an exception see Houston 1998) and the likely reason for this is the current lack of any clear statistical models to provide the necessary scientific credibility. Work is proceeding in developing such models by members of the current review team but there is still some way to go before these techniques are widely accepted in the scientific literature.

Clinical vs Statistical Significance

One area in the more general literature on treatment evaluation is the distinction that has been made between clinical and statistical significance (Jacobson and Truax 1991). The models developed by these and subsequent

authors (Christensen and Mendoza 1986; Hansen and Lambert 1996) build upon classical psychometric test theory (Nunnally 1978; Suen 1994) and offer a bridge between the heavily normative approach and a more clinically orientated idiographic position.

In the literature of sex offending we could find no use of these techniques, however, given the issues raised above concerning clinical relevance of normative studies it was felt appropriate to describe the techniques and recommend their use in sex offender treatment evaluations. They are of particular value where the researcher is examining the changes that are observed by pre- and post-testing assessments (Beckett et al 1994).

In an earlier paper Kazdin (1977) argued that clinically important changes should be so dramatic that statistical tests are almost an irrelevance. However, the scientific credibility of clinicians eschewing statistical tests in favour of 'eyeball' estimates of effect has, thankfully, never been high. The new clinical significance approach makes use of standard statistical models but provides the basis for an idiographic as well as a normative perspective on treatment effects. The procedures take on board the standard error of measurement (SEM) that affects measures of change and allow greater clinical utility of results than may be possible with a more standard statistical test (Jacobson and Truax 1991). Jacobson Follette and Ravenstorf (1984) developed the basic models for estimating clinical significance and these have been adapted and extended by Christensen and Mendoza (1986) and Hansen and Lambert (1996).

The most useful formula in this context is that proposed by Jacobson et al (1984) to measure the reliability of change:

$$\frac{\text{Pre-treatment score} - \text{post-treatment score}}{\text{SEM}}$$

The resulting value labelled RC is distributed with a population mean of zero and a variance of unity and can be interpreted as a z statistic. This formula was modified by Christensen and Mendoza (1986) to:

$$\frac{\text{Pre-treatment score} - \text{Post treatment score}}{\sqrt{2(\text{SEM})^2}}$$

The SEM is estimated as a function of the standard deviation and reliability coefficient of the measure in question. (In this case the reliability coefficients used should be based upon stability or test-retest estimation rather than internal consistency estimates). As well as providing an idiographic basis for evaluation, these procedures can be used for group comparisons and they may be readily utilised in meta-analytic studies (Robinson, Berman and Neimeyer 1990).

CONCLUSIONS

The treatment outcome studies and meta-analyses reviewed indicate that sex offender treatment is an evolving process, embracing an increasing number of criminogenic and personality factors. Hence, treatment programmes have typically changed over time, making sophisticated comparisons of treatment outcome very difficult.

Treatment programmes which utilise cognitive-behavioural treatment to address criminogenic need (ie offender characteristics empirically related to offending) can demonstrably improve survival rates. Best evidence on key components of successful sex offender treatment programmes are that they:

- address developmentally generated predispositions to offend ("Past"), factors associated with the maintenance of offending behaviour ("Present") and the development of relapse prevention skills ("Future")
- address the development of offenders' insight, motivation not to offend and the skills necessary to avoid offending and achieve non-offending lifestyle
- utilise treatment methods geared to the (criminogenic and personality) needs and personal (intellectual and emotional) capabilities of the offenders in treatment
- utilise combinations of group therapy and individual therapy as appropriate for different aspects of treatment and assessment

Features of the relatively more successful treatment programmes include:

- Cognitive-behavioural methods used to increase motivation and skills to avoid re-offending
- Deviant sexual arousal and preoccupation, where present, addressed by behaviour modification and/or medication
- Development of personally relevant relapse prevention plans, which are monitored and supported after return to the community

Offenders who appear to do particularly badly on long-term follow-up are:

- Rapists, homosexual pedophiles and mixed (age/gender/familial) offenders
- Psychopathic offenders, as defined by PCL-R
- Treatment resisters and treatment drop-outs

Extrapolating from the papers reviewed a number of themes of recommended good practice in the treatment of sex offenders are identified:

The current review confirms the cautiously optimistic conclusions from Hall's (1995) meta-analysis, as well as highlighting the need to integrate the clinical and economic benefits of group-based interventions, as in the UK Prison Sex Offender Treatment Programme (SOTP). This includes individualised treatments which address important differences between sex offenders' risk factors and treatment needs related to their past, present and future needs.

For the highest risk sex offenders, who present with the most disturbed backgrounds, psychopathic personality characteristics and extreme offending histories, we recommend a combination of the best features of the prison and forensic mental health services, namely:

- A therapeutically oriented milieu combining expectations of behaviour change, support and multidisciplinary oversight, monitoring and management of individual treatment plans
- A combination of group-based, cognitive-behavioural interventions/assessments addressing criminogenic and personality factors relevant to group members, with individual therapy as required, e.g. regarding the modification of deviant sexual arousal
- Multi-faceted assessment techniques, including:
 - self report/interviews
 - appropriately designed/validated psychometric tests of treatment impacts and process
 - behavioural observations of relevance to offending behaviour by staff and, where appropriate, friends/relatives
 - psychophysiological assessments relevant to offending and non-offending propensity, e.g. PPG or polygraph
 - documentary data such as reports of previous assessments/interventions, depositions and victim statements etc.
- The amount, intensity and scheduling of treatment appropriate to the needs of the offenders in treatment. Recent work by Beech et al (1998) has suggested, for example, that whilst the 80 hours of treatment provided by the UK Prison SOTP original "core programme" appeared to successfully impact on "low deviancy" offenders, "high deviancy" offenders (defined by type/intensity/denial of previous sexual offending) required the 160 hours of treatment.

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