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SEX OFFENDER TREATMENT

Research Results Inconclusive About What Works to Reduce Recidivism





United States
General Accounting Office
Washington, D.C. 20548

General Government Division

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The Honorable Bill McCollum
Chairman, Subcommittee on Crime
Committee on the Judiciary
House of Representatives

Dear Mr. Chairman:

This report responds to your request that we review and synthesize the current state of research knowledge on ways to prevent sex crimes against children. We subsequently agreed with your staff to cover sex crimes against both children and adults and to issue two reports to you. This report describes and synthesizes reviews of the research literature on the effectiveness of treatment programs for sex offenders. Specifically, we describe the reviews, report their findings on the effectiveness of treatment in reducing recidivism, and report their assessments of the supportability of conclusions drawn from existing research studies.

The second report, which we plan to issue later this year, will synthesize reviews of the research literature on education programs designed to prevent sexual abuse. It will also review research literature on the likelihood of child victims becoming adult offenders and what may be done to prevent that.

Background

In 1993, the most recent year for which published Uniform Crime Reporting data were available, there were 142,520 arrests in the United States for forcible rape and other sexual offenses.¹ Public alarm about sex crimes has prompted legislative activity at both the state and federal levels. Since 1994, 49 states have enacted laws requiring sex offenders to register their addresses with state or local law enforcement officials, and 30 states have adopted provisions for notifying citizens of the presence of a sex offender in their community. In December 1995, Public Law 104-71, the Sex Crimes Against Children Prevention Act of 1995, was passed. This act increased penalties against those who sexually exploit children either by engaging in certain conduct or via computer use, as well as those who transport children with the intent to engage in criminal sexual activity. In May 1996, the Violent Crime Control and Law Enforcement Act of 1994 was amended to require the release of relevant information to protect the public from sexually violent offenders who reside in their communities.

¹Excludes prostitution.

The act, Public Law 104-145, also known as “Megan’s Law,”² requires community notification of the presence of convicted sex offenders.

A 1994 survey by the Safer Society,³ a resource and referral center for sex offender assessment and treatment, indicated that there were 710 sex offender programs in the United States that treated adult pedophiles, rapists, and other sexual offenders. This number represented a 139-percent increase in the number of treatment programs since 1986. Of these, 137 were residential treatment programs (90 being prison-based), and 573 were outpatient or community-based programs.

There are three general types of treatment approaches:

- the organic, biological, or physical approach includes surgical castration, hormonal/pharmacological treatment, and psychosurgery;
- the psychotherapeutic approach includes individual, group, and familial counseling; and
- the cognitive-behavioral approach covers a variety of cognitive and skills training methods and includes behavior control techniques.⁴

Psychotherapeutic treatment was the primary approach to treating sex offenders before the 1960s. Today, cognitive-behavioral approaches predominate. According to the Safer Society’s 1994 survey, 77 percent of sex offender programs used the cognitive-behavioral approach, 9 percent used the psychotherapeutic approach, and 14 percent used other treatment models. No program reported using the organic model alone as the basis for treatment.

Conducting rigorous research on the effectiveness of sex offender treatment is difficult for methodological and ethical reasons. Methodological obstacles include difficulty in selecting a sample of offenders for treatment who are representative of all sex offenders, obtaining adequate comparison or control groups against which to compare offenders receiving treatment, determining how to deal with offenders who withdraw or are terminated from treatment, and determining what criteria to use for judging the success or failure of

²Megan Kanka was a child who was raped and killed in 1994, allegedly by a twice-convicted sex offender who lived on her street.

³Robert E. Freeman-Longo et al., 1994 Nationwide Survey of Treatment Programs and Models (Brandon, Vt.: Safer Society, 1994).

⁴See glossary for a further description of treatment approaches.

treatment and information sources to use in making this determination.⁵ According to Furby, Blackshaw, and Weinrott (1989), conditions are not often conducive to doing rigorous sex offender treatment research. Rather than designing study samples and data collection procedures to meet the information needs of their studies, evaluators are often forced by short time frames and inadequate funding into using samples and data sources that are readily available.

Ethical issues arise when researchers must decide which offenders should be admitted into the treatment program. If treatment is withheld from some eligible offenders, they may be precluded from receiving the benefits of a potentially therapeutic intervention. If treatment is provided to all offenders, then the treatment's efficacy cannot be well-tested empirically, and scarce resources may be expended on an ineffective program. Comparing alternative treatment conditions is one way to resolve the ethical dilemma.

Results in Brief

We identified 22 reviews that provided qualitative and quantitative summaries of research on sex offender treatment. The reviews discussed the studies in terms of treatment effectiveness and methodological adequacy.

There was no consensus among the reviews about what treatment works to reduce the recidivism of sex offenders. The cognitive-behavioral approach was most often reported to be promising, particularly with child molesters and exhibitionists. However, because of methodological limitations inherent in the studies, a quantitative estimate of the impact of cognitive-behavioral treatment on recidivism was not attempted in these reviews. Psychotherapy was generally viewed as not being effective except, in certain cases, when administered in combination with another treatment approach.

Most research reviews identified methodological problems with sex offender research as a key impediment to determining the effectiveness of treatment programs. As a result, little is certain about whether, and to what extent, treatments work with certain types of offenders, in certain settings, or under certain conditions.

⁵Janice K. Marques et al., "Effects of Cognitive-Behavioral Treatment on Sex Offender Recidivism: Preliminary Results of a Longitudinal Study," *Criminal Justice and Behavior*, Vol. XXI, No. 1 (1994), 28-54.

Nearly all of the reviews identified study design weaknesses, two of which were most recurrent. First, the reviewers found that comparison groups (against which to compare treated groups) were often absent. This made it difficult to judge whether recidivism results were attributable to the treatment, to the method used for selecting certain types of offenders for treatment, or to other factors unrelated to treatment that could affect recidivism. Another major methodological problem identified in the reviews was inconsistent and inadequate follow-up periods. Meaningful comparisons between study results are difficult to make when offenders are tracked for different periods of time and no attempts are made to statistically adjust for such time differences. Further, if sex offenses are underreported, as research has demonstrated, a short period of follow-up cannot provide the basis for an accurate assessment of recidivism.

The other two limitations identified in the research reviews pertained to recidivism measures and how research is reported. With respect to those measures, weaknesses included inconsistent ways of measuring recidivism and the fallibility of too few data sources as the basis for making estimates of recidivism. With respect to the reporting of research, weaknesses included insufficient descriptive information to permit the integration and/or comparison of findings across studies.

Research reviews that reported some promising areas of treatment agreed with those that did not on the need for rigorous research to clearly establish the efficacy of sex offender treatment.

Scope and Methodology

We collected, reviewed, and analyzed information from 22 research reviews on sex offender treatment issued between 1977 and 1996. These reviews were identified through a multistep process that included contacting known experts in the sex offense research field, conducting computerized searches of several online databases, and screening hundreds of studies on sex offender treatment. We sent the list of reviews to seven experts in the field to confirm the comprehensiveness of our list of research reviews.⁶

We used a data collection instrument to systematically collect information on treatment settings and types, offender types, recidivism measures, methodology issues, follow-up periods, and conclusions reached from these reviews. (See app. I for a more detailed description of our methodology.)

⁶Appendix III contains the list of experts we used for this effort.

We sent a draft of this report to three of the experts previously consulted to ensure that we had presented the information about the reviews fairly and accurately.⁷ Their comments were incorporated where appropriate. We did not send a draft to any other agency or organization because we did not obtain information from such organizations for use in this study. We did our work between October 1995 and March 1996 in accordance with generally accepted government auditing standards.

Description of the Research Reviews

The 22 research reviews covered about 550 studies on sex offenders. Of these studies, 176 were cited in 2 or more reviews, and 26 were cited in 5 or more reviews. Given the widely varying levels of detail provided in the research reviews, we could not always determine whether reference was being made to a study of sex offender treatment or to other types of studies on sex offenders (e.g., recidivism studies on untreated offenders and studies attempting to identify sex offender characteristics). Therefore, we could not precisely determine the total number of studies on sex offender treatment covered in these research reviews. We also did not determine how many studies covered in the 22 research reviews were duplicative in terms of researchers publishing multiple articles based on the same set of data. At least 10 reviews were authored or coauthored by individuals affiliated with a sex offender treatment program. The earliest study included in a research review was published in 1944, the most recent in 1996.

Almost all of the research reviews provided narrative assessments of original research studies, with approximately one-half also providing a tabular summary of at least some of the studies covered. Only one review performed a meta-analysis, which is a statistical aggregation of the results from multiple studies to derive an overall quantitative estimate of the effectiveness of treatment.

Most research reviews did not restrict their coverage to a single type of treatment, treatment setting, or offender type. Two focused primarily on a specific treatment setting—one on prison-based treatment programs and the other on hospital-based programs. Nine focused primarily on cognitive-behavioral approaches, five on organic treatment, and one on psychotherapeutic treatment methods. Half of the reviews included studies on offenders who committed intrafamilial crimes, while others were not always clear whether the offense was intrafamilial or nonfamilial.

⁷Appendix III lists the experts who reviewed this report.

In assessing recidivism results, most research reviews considered whether findings were based on official (e.g., parole violation, rearrest, reconviction) or unofficial (e.g., self-report, report from family members) indicators of outcome. When official data sources were described in the research reviews, conviction for a new sex crime was the single most frequently cited recidivism measure. In many cases, however, the review did not specify whether the original study used arrest and/or conviction for a sex or nonsex crime as the recidivism measure. As indicated earlier, sometimes this was because the original study itself was unclear about how recidivism was measured.

Research Reviews Varied in Their Conclusions About Treatment Effectiveness

Some of the research reviews concluded that treated offenders had lower recidivism rates than untreated offenders. Others felt that the studies undertaken were so flawed that no firm conclusions could be drawn. Many reviewers seemed to be somewhere in between. They tended to conclude that, while some recent treatment approaches appeared promising, more rigorous research was needed to firmly establish their effectiveness. These reviewers asserted that the more rigorous research should employ larger and more representative samples of treated and untreated offenders, with longer follow-up periods and with better indicators of recidivism.

Eighteen of the 22 research reviews included some discussion of cognitive-behavioral programs, and 12 of the 18 concluded that such programs were at least somewhat effective. These types of programs typically involved satiation, aversion conditioning, covert sensitization, and relapse prevention techniques either used alone or, more often, in combination with one another.⁸ Reviewers who concluded that cognitive-behavioral programs were effective often emphasized different components as being the source of their efficacy and differed in terms of what types of offenders they were most effective in treating. One reviewer, for example, concluded that deviant sexual behavior could be reduced by techniques involving covert sensitization, aversion therapy, and a combination of the two.⁹ Another set of reviewers concluded that comprehensive cognitive/behavioral programs, particularly when administered to exhibitionists and molesters, held the greatest promise for effective sex offender treatment.¹⁰ The National Research Council reported in 1994 that anger management may be appropriate for dealing

⁸See glossary for a description of these treatment methods.

⁹Grossman, 1985.

¹⁰W. L. Marshall and H. E. Barbaree, 1990.

with violent individuals, but that “it has not been demonstrated that, in fact, such techniques can alter a long-term pattern of sexually aggressive behavior.”¹¹

Seventeen of the 22 research reviews discussed organic treatments, and 6 of the 17 concluded that there was some evidence of effectiveness. However, there was no consensus even among these reviewers about a particular drug being most effective, nor about the duration of positive effects from such interventions.

Fifteen of the 22 research reviews discussed psychotherapeutic approaches to treatment. None concluded that the various forms of counseling that characterize this approach were sufficient by themselves to substantially alter the behavior of sex offenders. However, a number of reviewers indicated that psychotherapy was useful in diminishing recidivism when used in conjunction with other treatments.

Only two reviews attempted to quantify the overall benefit of treatment programs. A 1990 report by the Canadian Solicitor General stated: “A reasonable conclusion . . . is that treatment can be effective in reducing recidivism from about 25% to 10-15%.” The only known and available meta-analysis, or statistical aggregation, of treatment studies to date concluded that “the net effect of the sexual offender treatment programs examined . . . is 8 fewer sexual offenders per 100” (Hall, 1995). Both of these reviews included a range of sex offender types, treatment settings, and programs. They did not identify any particular subgroup of sex offenders for whom treatment was more effective.

Most reviewers, even those who were quite positive about the promise of sex offender treatment programs, felt that more work was needed before firm conclusions could be reached. They cited the methodological limitations of studies as the major obstacle to drawing firm conclusions about treatment effectiveness. Even those reviewers who appeared to be among the most positive and optimistic (at least regarding cognitive/behavioral programs) echoed the general sentiment that “there are no conclusive data available from completely methodologically sound research” (Marshall and Anderson, unpublished).

¹¹Albert J. Reiss and Jeffrey A. Roth, eds., *Understanding Violence* (Washington, D.C.: National Academy Sciences, 1994), p. 113. This study was not one of the 22 reviews we synthesized for this report because it was not a review of multiple research reports on sex offender treatment.

Research Reviews Identified Methodological Limitations in Evaluating Treatment Effectiveness

The research reviews found that conclusions about the effectiveness of treatment programs were impeded by methodological weaknesses in the implementation and reporting of the studies. The problems identified may be grouped into three broad categories: (1) limitations in the methodological design of studies, (2) limitations in the recidivism measures used, and (3) limitations in how the studies were reported.

Limitations in Study Design

Nearly all of the reviews identified weaknesses in the study design as a problem with sex offender treatment research. While numerous design problems were identified, two were most recurrent. Of the 22 reviews, 15 were critical of the absence of comparison or control groups, and 12 were critical of follow-up periods that were inadequate in duration. In addition, 5 were critical of the inconsistent duration of follow-up periods.

To meaningfully interpret recidivism results, it is important for an effectiveness study to use a comparison group that is similar on key characteristics to the treatment group. Using a comparison group helps answer such questions as (1) what would recidivism rates have been without treatment and (2) what factors, other than the treatment program alone, may have affected recidivism? For example, such studies may find that treatment volunteers, those with significant community ties, and/or older offenders may have lower recidivism rates, even without treatment, than other types of offenders. Without a comparable no-treatment group of offenders against which to benchmark the results of the treatment group, it is difficult to know how much of an impact, if any, the treatment program had on recidivism.

The reviews found that, in the absence of comparison groups, researchers sometimes compared the recidivism rates obtained in their study against those obtained in other studies. However, explanations other than treatment and study characteristics could have accounted for different recidivism rates in these studies. These include differences in sex offense reporting rates, apprehension levels, and prosecutorial policies across different jurisdictions and study periods.

Research has shown that sex crimes are underreported and that the longer the follow-up period, the more accurate the assessment of recidivism. One reviewer noted that “Recidivism rates are most meaningful if they cover at least a five-year period, postincarceration” (Becker, 1994), while another

suggested that “studies that follow up offenders for periods of as short as 5 years or less may be producing substantial underestimates of true rates of recidivism” (Finkelhor, 1986). Although we cannot be precise about the average length of follow-up because the research reviews did not report it in a systematic fashion, it appears that many of the studies covered in the reviews involved follow-up periods of less than 5 years.

Not only can follow-up periods be too short to accurately measure recidivism rates, reviewers also found it difficult to compare the outcomes of different studies because the studies varied in the amount of time they tracked offenders after treatment and no statistical analyses were performed to account for the differences. Studies reported recidivism rates after 3 months, 1 year, 4 years, 15 years, etc. Follow-up periods even varied within a single study. Offenders were reportedly at risk for periods ranging from 1 month to 20 years in a single study. While a short follow-up period may not invalidate comparisons between similar treatment and control groups, the recidivism rate obtained for both groups is likely to be an underestimate of the true recidivism rate, because offenders are more likely to be reported and apprehended for their sex crimes in the long run than in the short run.

Many of the reviews identified other weaknesses in the research design of sex offender treatment studies. These weaknesses included selection bias (e.g., program participants were selected because they volunteered, so study results may not have been generalizable to nonvolunteers), the use of small study samples, and failure to consider attrition from treatment in determining how outcome data were analyzed.

An ongoing study of institutionalized sex offenders in California was cited by several research reviews and experts in the field as employing a research design that attempts to control for many of the methodological problems besetting other studies.¹² (The design and preliminary findings from this evaluation are described in app. II.)

Limitations in Recidivism Measures Used

The validity of conclusions about treatment effectiveness is greatly affected by which data sources are used to measure outcome. Given that research has indicated that sex offenses are underreported, that a single

¹²W. L. Marshall and W. D. Pithers, “A Reconsideration of Treatment Outcome with Sex Offenders,” *Criminal Justice and Behavior*, Vol. XXI, No. 1 (March 1994), p. 20.

Vernon L. Quinsey et al., “Assessing Treatment Efficacy in Outcome Studies of Sex Offenders,” *Journal of Interpersonal Violence*, Vol. VIII, No. 4 (December, 1993), p. 514.

data source is likely to be incomplete, and that some data sources are less reliable than others, the fewer and less reliable the data sources on which recidivism measures are based, the greater the likelihood that recidivism rates will be underestimated.

Nearly three-fourths of the research reviews pointed out the problem of studies relying on too few data sources to measure recidivism. The reviews criticized studies that relied solely on either official records or offender self-reports to determine whether program participants had reoffended. They stated that both official records and self-reports are likely to contain measurement error. For example, both arrest and conviction records are likely to yield underestimates of recidivism if sex offenses are underreported. Self-report recidivism information may be unreliable. Such limitations in data sources would not affect the scientific validity of comparing the recidivism rates of treated and untreated offenders since both groups would be affected equally. However, these limitations could affect the accuracy of the recidivism estimates. Consequently, it is advisable to use multiple data sources to overcome the weakness of each single data source.

The operational definition of recidivism also has a significant bearing on the results obtained from outcome studies. In some cases, recidivism was defined as a rearrest or conviction for a sex offense; in others, it was defined as rearrest or conviction for any offense. In still other cases, recidivism was defined only as a rearrest, or only as a reconviction, with the nature of the crime unspecified. There seemed to be little consensus among reviewers about what an optimal indicator of recidivism would be. As a result, it was difficult to determine whether, and by how much, sex offender treatment reduced recidivism.

Limitations in How Research Was Reported

Nearly half of the reviews indicated some type of limitation in how sex offender treatment studies were reported. The most frequently indicated limitations included inadequate descriptions of the treatment programs, failure to report the criteria used to select study participants, and inadequate descriptions of recidivism measures. In the absence of such information, it is exceedingly difficult to synthesize the state of knowledge of sex offender treatment research. For example, without knowing the contents of a program or how program participants were selected for it, the ability to replicate the study and determine whether results are generalizable is diminished. Without knowing precisely how recidivism

was measured in a study renders comparisons between it and other studies meaningless.

Conclusions

A substantial number of studies have been done on sex offender treatment effectiveness, many of which were assessed in the research reviews described and synthesized in this report. The most optimistic reviews concluded that some treatment programs showed promise for reducing deviant sexual behavior. However, nearly all reported that definitive conclusions could not be drawn because methodological weaknesses in the research made inferences about what works uncertain. There was consensus that to demonstrate the effectiveness of sex offender treatment more and better research would be required.

Copies of this report will be made available to others upon request. The major contributors to this report are listed in appendix IV. Please call me at (202) 512-8777 if you have any questions.

Sincerely yours,



Laurie E. Ekstrand
Associate Director, Administration
of Justice Issues

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Scope and Methodology

We collected, reviewed, and analyzed information from available published and unpublished reviews of research on sex offender treatment. Identifying the relevant literature involved a multistep process. Initially, we identified experts in the sex offense research field by contacting the Department of Justice's Office of Juvenile Justice and Delinquency Prevention and Office of Victim Assistance, the National Institute of Mental Health's Violence and Traumatic Stress Branch, the American Psychological Association, the Association of Treatment of Sex Abusers, Canada's Ministry of Health, directors of research at various sex assault centers, and selected academicians. These contacts helped identify experts in the field, who in turn helped identify other experts. We also conducted computerized searches of several online databases, including ERIC (the Education Resources Information Center), NCJRS (the National Criminal Justice Reference Service), PsycINFO, Dissertation Abstracts, and the National Clearinghouse on Child Abuse.

We screened hundreds of studies on sex offender treatment to determine their relevance to our work. This process revealed that a number of reviews of the research literature had been written. Thus, because of the level of effort involved in identifying and analyzing the large number of original research studies on sex offender treatment and our identification of a sufficient number of reviews of the research literature, we decided to base our synthesis on the research reviews.

A limitation of basing our work on the reviews is that we did not assess the original studies, but rather relied on the descriptions and assessments provided by the authors of the reviews. The reviews did not always cite the specific information, such as the types of offenders treated or whether comparison groups were used, on all studies they covered. Sometimes, this was because full descriptions of the research were not provided in the original studies themselves.

We sent the list of reviews to seven experts in the field to confirm the comprehensiveness of our list of research reviews.¹³ Also, as a final check, we conducted a second search of computerized online databases in March 1996 to ensure that no new reviews had been published since our original search in October 1995.

We identified 26 research reviews on sex offender treatment issued between 1977 and 1996. We included 22 of these 26 reviews in our analysis. We were unable to obtain two reviews. These two were published more

¹³Appendix III contains the list of experts we used for this effort.

that 15 years ago and were unavailable through inter-library loan services. Two other reviews were similar to a third review written by the same author. Of the three reviews by this author, we selected the review with the most recent publication date for our analysis. Of the 22 reviews, 10 had been published since 1990, and one had been submitted for publication but was not yet published.

We developed a data collection instrument to systematically capture information on treatment settings, treatment types, offender types, recidivism measures, methodology issues, follow-up periods, and conclusions reached. Each research review was read and coded by a social scientist with specialized doctoral training in evaluation research methodology. A second social scientist then read the research reviews and verified the accuracy of the coding of every item on every completed instrument.

We sent a draft copy of our report to three of the seven experts who reviewed the comprehensiveness of our list of research reviews. Appendix III lists these experts. They generally agreed that we presented information on the research reviews fairly and accurately, and made technical suggestions that we incorporated into the report as appropriate. We did not send a draft to any other agency or organization because we did not obtain information from such organizations for use in this study.

We did our work between October 1995 and March 1996 in accordance with generally accepted government auditing standards.

California's Sexual Offender Treatment and Evaluation Project: A Treatment Program With a Rigorous Evaluation Design

One sex offender treatment study was cited in several reviews as incorporating many of the methodological features needed for a sound assessment of treatment effectiveness.¹⁴ The study, "Sexual Offender Treatment and Evaluation Project," was mandated and funded in 1981 by the California legislature. The mandate required that a California state hospital program be established in accordance with the features of experimental design so that sex offender treatment could be appropriately evaluated. In 1985, the California Department of Mental Health developed a treatment program for sex offenders and established a long-term, scientific study to evaluate the program.

The California study is a longitudinal effort to evaluate treatment for institutionalized sex offenders. The study includes three groups: a volunteer treatment group (offenders who volunteered for and received treatment), a volunteer control group (offenders who volunteered for treatment but did not receive it), and a nonvolunteer control group (offenders who refused treatment). Only offenders with convictions for rape or child molestation were eligible. Volunteers were paired and matched in terms of age, criminal history, and type of offense. One member of each pair was randomly assigned to the treatment group, and the other remained in the control group. Offenders matched on the above characteristics who did not volunteer were later selected for the nonvolunteer control group.

A comprehensive cognitive-behavioral treatment approach primarily employing relapse prevention was used. Other treatment components included group seminars on sex education, human sexuality, relaxation training, stress and anger management, social skills, and substance abuse and behavior therapy to alter deviant sexual arousal. Pre-treatment and post-treatment measures were analyzed to assess whether participants achieved treatment goals. Members of the treatment group received treatment for 2 years.

Offenders completing the treatment program participated in an outpatient program for 1 year after release. Both official and unofficial data are used to determine recidivism. Official data include records from the federal and state Departments of Justice, the state Department of Corrections, and parole offices. A new arrest for either a sex crime or a violent nonsex crime constitutes a reoffense in this study. Unofficial data include confidential self-reports about the commission of offenses undetected by

¹⁴Janice K. Marques et. al. (1994). Also see Janice. K. Marques, "How to Answer the Question, 'Does Sex Offender Treatment Work?'" (September 1995). Paper presented at the International Expert Conference on Sex Offenders, Utrecht, the Netherlands.

Appendix II
California's Sexual Offender Treatment and
Evaluation Project: A Treatment Program
With a Rigorous Evaluation Design

the criminal justice system. The study keeps records and follows up on participants who drop out of the treatment program before completion.

To date, preliminary results of the evaluation study have not revealed a statistically significant treatment effect. Overall, offenders completing the treatment program and the volunteer control group had approximately the same recidivism rate for new sex crimes. The nonvolunteer group had a somewhat higher recidivism rate, but it was not statistically different from the other two groups. For violent nonsex crimes, the treatment group had a lower recidivism rate than either control group, but the differences were not statistically significant. The researchers emphasized the preliminary nature of these results and the fact that final results were about 5 years away.

Treatment under this sex offender program ended in 1995. However, follow-up of participants will continue until the year 2000. Upon completion of the study, it is anticipated that all participants will have been followed up after release from the institution for a minimum of 5 years and a maximum of 14 years.

Experts Consulted

The following experts reviewed our listing of research reviews to help ensure that our coverage of the literature was comprehensive. Those with asterisks next to their name also reviewed and commented on the draft report. The objective of the review was to ensure that we were presenting information fairly and accurately.

Dr. Margaret Alexander
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Glossary of Treatment Approaches

Aversion Therapy	Treatment in which visual or auditory depictions of deviant behavior or arousal, or fantasies of deviant sexual stimuli and behavior, are linked with and/or immediately followed by a highly physically aversive stimulus. The aversive stimuli, which can be administered by either a therapist or the offender, usually consists of foul smells (e.g., ammonia capsules) or mild electric shocks.
Cognitive-Behavioral Treatment	Treatment based on the assumption that sexual crimes are attributable to the interaction of a variety of historical, socioeconomic, cognitive, behavioral, physiological, and social variables. These treatments seek to change offenders' distorted sexual cognitions and perceptions, reduce deviant sexual arousal, and increase arousal to appropriate behaviors or partners. The broad purpose of this type of treatment is to get offenders to understand and take responsibility for their actions, to become motivated for treatment, and to learn skills to help control their deviant behaviors. Cognitive-behavioral treatment approaches cover a wide variety of treatment methods and typically combine behavior control techniques with some type of counseling or therapy. Behavior control techniques used include aversion therapy, covert sensitization, relapse prevention, and satiation.
Covert Sensitization	A form of aversion therapy that seeks to reduce deviant sexual arousal by repeatedly pairing sexually aberrant fantasies with highly aversive images that produce fear, anxiety, and distress. The intent is to sensitize the offender to inappropriate stimuli. The therapy is carried out using fantasies instead of through physical means.
Hormonal/ Pharmacological Treatment	Treatment that has been called a form of "chemical castration." Although the medications used in these treatments differ somewhat in their pharmacology and work in different ways, they are intended to reduce sexual activity by chemically reducing testosterone levels. The most well-known drugs used with sex offenders are the hormonal drug medroxyprogesterone MPA and the antiandrogen drug cyproterone acetate CPA.
Organic, Biological, or Physical Treatment	Treatments that have traditionally been used to reduce offenders' sex drives. They include hormonal/pharmacological treatment, psychosurgery, and surgical castration.

Psychosurgery	Surgical treatment that is intended to remove the part of the brain (in the hypothalamus) believed to control sexual behavior.
Psychotherapy	The primary emphasis of psychotherapy is on the client gaining an understanding of the psychodynamics of sexual offending. Currently, however, there is wide variation in the types of therapy provided, which include individual, group, and family-based counseling.
Relapse Prevention	Treatment in which offenders are told that their offense is the result of a chain of events involving various cognitions and emotional states that trigger a sequence of behaviors ending in the commission of a sex offense. Treatment seeks to reduce the risk of reoffending by providing offenders with an understanding of their problem and with skills so that the offense chain can be avoided or stopped.
Satiation	A procedure whereby an inappropriate response is eliminated by repeatedly eliciting it until the desire for the stimulus is abolished. In other words, the response is sought until it no longer has reinforcing properties and can even become aversive.
Surgical Castration	A surgical treatment used widely in Europe that involves the removal of the male sex glands. The intent of the treatment is to affect sexual behavior by reducing testosterone levels. Testosterone is the principal androgen, or male sex hormone, and is produced in the male sex glands.

Research Reviews Used in the Synthesis

Barbaree, Howard E., and William L. Marshall. "Treatment of the Adult Male Child Molester." In Child Sexual Abuse: Critical Perspectives on Prevention, Intervention, and Treatment, eds. C.R. Bagley and R.J. Thomlison, (Ontario, 1991), pp. 217-256.

Barker, Mary. "What Do We Know About the Effectiveness of Cognitive-Behavioural Treatment for Sex Offenders?" Journal of Mental Health, Vol. II (1993), pp. 97-103.

Becker, Judith V. "Offenders: Characteristics and Treatment." Sexual Abuse of Children, Vol. IV, No. 2 (Summer/Fall 1994), pp. 176-197.

Becker, Judith V., and John A. Hunter, Jr. "Evaluation of Treatment Outcome for Adult Perpetrators of Child Sexual Abuse." Criminal Justice and Behavior, Vol. IXX, No. 1 (March 1992), pp. 74-92.

Blair, C. David, and Richard I. Lanyon. "Exhibitionism: Etiology and Treatment." Psychological Bulletin, Vol. LXXXIX (1981), pp. 439-463.

Bradford, J.M.W. "Antiandrogen and Hormonal Treatment of Sex Offenders." In Handbook of Sexual Assault: Issues, Theories, and Treatment of the Offender, eds. William L. Marshall, D.R. Laws, and Howard E. Barbaree (New York: Plenum Press, 1990), pp. 297-310.

Cooper, Alan J. "Progestogen in the Treatment of Male Sex Offenders: A Review." Canadian Journal of Psychiatry, Vol. XXXI (1986), pp. 73-79.

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