COGNITIVE-BEHAVIORAL TREATMENT OF SEX OFFENDERS

A Treatment Comparison and Long-Term Follow-Up Study

ROBERT J. McGRATH
Counseling Service of Addison County
STEPHEN E. HOKE
Vermont Department of Corrections
JOHN E. VOJTISEK
Middlebury College

Recidivism rates were examined for the near-exhaustive sample of 122 sex offenders placed in a rural Vermont county under correctional supervision from 1984 through 1995. Participants were at risk for an average of 62.9 months. Of this sample, 71 nonrandomized participants enrolled in a comprehensive outpatient cognitive-behavioral and relapse-prevention-based treatment program, 32 participants received less specialized mental health treatment, and the remaining 19 participants received no treatment. Pretreatment, between-group comparisons identified the no-treatment group as having more extensive criminal histories. No other statistically significant between-group differences among factors related to reoffense risk were found. At follow up, the cognitive-behavioral treatment group demonstrated a statistically significant treatment benefit. The treatment program is described.

The high prevalence of sexual assault of children and women has been documented in the professional literature for over 60 years (Salter, 1988). Recent research suggests that at least 20% of American

AUTHORS' NOTE: *The authors thank Carolyn Carey for her substantial contributions in the development of the treatment program.* *Address all correspondence to Robert J. McGrath, Vermont Treatment Program for Sexual Aggressors, RD #1, Box 374, Middlebury, Vermont 05753. Electronic mail may be sent via Internet to rmcgrath@sover.net*

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women and 5% to 10% of American men have experienced some form of sexual abuse as children (Finkelhor, 1994). As adults, approximately 10% to 25% of women are raped or sexually assaulted (Koss, 1993). Unfortunately, only during the last few decades has public attention focused on this important issue. Initiated largely by the consciousness-raising efforts of the women's movement in the 1970s (e.g., Brownmiller, 1975), sexual assault has become a common and important topic of examination by the media as well as the focus of prevention efforts in schools and the community (Roberts, Alexander, & Fanurik, 1990). This attention has led to increased reports of sexual assault by victims that, in turn, have resulted in increased identification of perpetrators. For example, between 1988 and 1990, the population of sex offenders in American prisons rose by 48% ("Number of Sex Offenders," 1991).

How society intervenes with these identified sex offenders has become a vitally important public health issue (Henry, 1996). Community sentiment to "just lock 'em up and throw away the key" is prevalent, but this approach does not take into consideration the limited resources of most correctional systems. Prisons in the United States are overcrowded. In addition, sentencing structures allow almost all sex offenders to eventually return to the community following incarceration, typically after serving only a portion of their original sentences (Maguire & Pastore, 1995). Reliance on incarceration as a sole solution also ignores the reality that certain types of sex offenders present a relatively low risk of reoffending (McGrath, 1991; Quinsey, Rice, & Harris, 1995).

Considerable attention has focused on alternatives to incarceration as a stand-alone intervention for sex offenders (e.g., Knopp, 1984). Among these alternatives are prison- and community-based treatment programs whose effectiveness has been the source of frequent examination and critical debate. Furby, Weinrott, and Blackshaw's (1989) comprehensive and often-cited review of some 42 studies concluded that there is no evidence to support the efficacy of treatment in reducing sex-offender recidivism rates. Their conclusion was based, in part, on the fact that many of the studies reviewed evidenced multiple and serious methodological problems. Furby et al. (1989) also noted that many of the treatment programs critiqued were obsolete and that state-of-the-art programs might be more effective. In-

deed, Hall's (1995) recent meta-analysis of post-Furby et al. (1989) studies reached very optimistic conclusions about the efficacy of hormonal treatments and cognitive-behavioral treatments. Reviews by Alexander (1994) and Marshall, Jones, Ward, Johnston, and Barbaree (1991) also have found reason for optimism about the efficacy of sex-offender treatment.

This optimism must be tempered, however, by an examination of the methodological problems common even to this recent literature. For example, the Hall (1995) meta-analysis considered 92 post-Furby et al. (1989) studies for review. He discarded 80 of these because they had fewer than 10 participants, no comparison or control group, or no reported recidivism data. Of the 12 remaining studies on which he conducted his meta-analysis, only 3 employed designs in which participants were randomly assigned to a treatment or control group. Given that the research in this area is still at an early stage of development, even studies that do not meet stringent scientific standards have the potential for providing significant contributions to our knowledge about the effects of treatment of sex offenders.

The program described in the present study was developed in a rural Vermont county in 1984 in collaboration with the local state probation and parole department that had responsibility for providing services to an increasing caseload of individuals convicted of sex offenses. Published reports available at that time described several relatively new and promising treatment approaches (e.g., Abel et al., 1984; Greer & Stuart, 1983; Knopp, 1984) and these formed the basis for the development of a comprehensive cognitive-behavioral and relapse-prevention treatment program. The program can most simply be described as a combination of (a) correctional supervision designed to limit offender access to potential victims and (b) treatment designed to help offenders identify and modify the types of feelings, thoughts, situations, and behaviors that were proximal to their sexually aggressive acts.

Enrolled in this program were the majority of convicted sex offenders placed in Addison County, Vermont, during the time of the study. Initial evaluation of the program was encouraging (McGrath, Hoke, & Carey, 1995) but did not include a comparison group. Thus, a retrospective review was undertaken and it identified several other offenders who, during the same time period and in the same geo-

graphic area, entered less-specialized mental health treatment. The primary purpose of this study was to compare the reoffense rates of those sex offenders who were treated in the specialized cognitive-behavioral program with those who received less specialized services. Because treatment refusers should not be ignored in considering program effectiveness (Gordon, Holden, & Leis, 1991), a secondary purpose of the study was to examine the risk to the community of those offenders who rejected treatment services.

METHOD

PARTICIPANTS

The 122 participants were the near-exhaustive participant pool (98.4%) of all convicted adult male sex offenders placed on community correctional supervision for a period of at least 3 months in rural Addison County, Vermont, during the 12-year period from January 1, 1984, through December 31, 1995. Two participants who met the above criteria were not included in the study because of follow-up complications. One received nonspecialized treatment and one received no treatment. All but 1 participant were Caucasian. Most participants were considered low- and moderate-risk offenders as defined by guidelines developed by McGrath and Hoke (1995). Because most of the participants (93.4%) were placed in the community on probation, the terms *probation* and *probation officer* are used throughout this article. The remaining participants were on parole or furlough. All but 8 (6.6%) participants were mandated to participate in treatment as a condition of probation.

Based on their most recent conviction, participants were classified as child molesters if they had actual or attempted physical sexual contact with a female under the age of 14 when they themselves were at least 5 years older than the victim (Quinsey, 1977), or if they sexually assaulted a male under the age of 16 when at least 5 years older than the victim (Marshall and Barbaree, 1988). Men who met criteria as child molesters and whose only known victims were biological or surrogate children or consanguine relatives, such as nieces or nephews, were considered incest offenders. Participants were clas-

sified as rapists if they did not meet criteria as child molesters and assaulted or attempted to assault female victims by use of force or threat of force. Hands-off offenders were individuals who committed sexual offenses such as exhibitionism, obscene phone calling, and voyeurism. Based on these definitions, the sample was composed of 43 molesters of females (35.2%), 8 molesters of males (6.6%), 4 molesters of both males and females (3.3%), 36 incest offenders (29.5%), 23 rapists (18.9%), and 8 hands-off offenders (6.6%).

All participants met with a probation officer shortly after being placed on probation and were referred to the specialized cognitive-behavioral program described below. Participants who declined this referral did so for several reasons. Some participants had begun nonspecialized treatment before being placed on probation and said they did not want to switch. Some chose treatment programs that were reported as more convenient for geographic or scheduling reasons. Some refused to enter treatment. Some participants were not mandated to attend treatment. A few participants appeared to have consciously avoided the specialized program and enrolled in less-demanding treatment programs.

Specialized-treatment group. Most of the participants (N = 71) comprised the specialized-treatment group. Each of these participants admitted to committing a sexual offense and agreed to enroll in treatment. No participant who met these conditions was turned away. Patients who completed at least 3 months of this specialized cognitive-behavioral treatment program were considered specialized-treatment group participants for the purposes of data analysis. One participant (1.4%) was terminated from the specialized-treatment group before completing 3 months of treatment and 5 participants (7%) were terminated after having completed more than 3 months of treatment. Participants were terminated for consistently failing either to participate actively in therapy or to otherwise comply with their probation conditions.

Nonspecialized-treatment group. These participants (N = 32) also admitted committing sexual offenses and enrolled in some type of nonspecialized treatment. The one participant who was terminated from the specialized-treatment group prior to completing 3 months of

treatment had previously been enrolled in a nonspecialized-treatment program and was counted in that group for the purposes of data analysis.

No-treatment group. The remaining participants (N = 19) refused treatment and comprised a no-treatment group. Of this group, 9 denied committing a sexual offense and therefore did not believe they needed treatment, 5 were not mandated by authorities to attend treatment, and 5 admitted committing a sexual offense but refused to attend treatment.

SERVICE PROVIDERS

The second author served as the probation officer for all participants in the specialized-treatment group and approximately half of the participants in the comparison groups. He had been trained in the relapse-prevention model of supervising sex offenders described by Cumming and Buell (1997). The training level of probation officers who supervised the remainder of comparison group participants varied from extensive to minimal.

The first author conducted psychological assessments on all offenders who entered the specialized-treatment program. The first author also conducted all group treatment for specialized-treatment group participants, usually with one of three female master's-level clinicians serving as a cotherapist. Almost all adjunctive individual, couples, and family therapy was conducted by one of these four clinicians. Participants in the nonspecialized-treatment group received assessment and treatment services from one of approximately 20 clinicians whose experience with this population was typically minimal.

ASSESSMENT

A probation officer conducted a presentence investigation, following the format recommended by Cumming and Buell (1997), on almost all of the participants prior to sentencing by the court. The primary purpose of the investigation was to determine whether the offender could be safely supervised and treated in the community.

Following placement in the community, all specialized-treatment group participants underwent a psychological evaluation to assist in formulating a treatment plan. Evaluations consisted of a records review, clinical interviews, psychological testing, and, in the majority of cases, phallometric assessment. These evaluation procedures have been detailed elsewhere (McGrath, 1990; 1993; McGrath & Purdy, in press; Roys & Roys, 1994). Comparison-group participants were not subject to phallometric assessment and, according to available case files and probation notes, rarely completed other psychological testing.

SPECIALIZED TREATMENT

Treatment provided to the specialized-treatment group, and summarized here, was first described by McGrath and Carey (1987) and more recently by McGrath (1995b). Program philosophy and treatment goals remained constant over time, but some treatment interventions evolved somewhat. The program had always used a cognitive-behavioral and relapse-prevention model that included open and frequent communication between treatment staff and the supervising probation officer.

Peer group therapy was the primary treatment modality for almost all (91.5%) of the specialized-treatment participants. The remaining 6 (8.5%) participants received individual treatment because they did not have the cognitive skills to benefit from available treatment groups or were judged to require less-intensive services than weekly group treatment. Many of the specialized-treatment offenders received ancillary treatments. For example, referrals to substance abuse counseling, Alcoholics Anonymous, and job-training programs were common. Most offenders underwent at least a few conjoint therapy sessions to educate their spouses or significant others about their offending patterns and relapse prevention plan. Incest offenders who reunited with their families typically underwent lengthy conjoint couples and family therapy.

Two identically structured, open-ended therapy groups met throughout the duration of the study. Each group had an average of eight members and met once a week for a 2-hour session. Participant group assignment was based on scheduling convenience for the patient

and availability of openings. Patients attended the same therapy group during their entire course of treatment, initially weekly and then monthly for booster sessions.

Several interactional elements of the program were considered essential. Treatment and supervisory staff made every effort to interact with participants in a direct, open, respectful, and nonpunitive manner. Program expectations (e.g., regular attendance, active participation, prosocial behavior) were made explicit both verbally and in writing. Treatment and supervisory staff communicated the expectation to each participant that he could successfully complete the program and not reoffend. Treatment sessions were typically very structured. Patients had weekly homework assignments that were the focus of review in subsequent therapy sessions. Appropriate humor was a common element in most treatment sessions. Praise, attention, and approval were used as primary reinforcers of appropriate participation and prosocial behavior. In addition, as participants successfully progressed in treatment, they were encouraged and allowed to take on an increased leadership role in therapy groups and typically had a reduction in their level of supervision. Punishments (e.g., verbal confrontations, written warnings, increased supervision, probation violations) were used judiciously. When necessary, they were delivered in as firm, fair, and swift a manner as possible. The following seven treatment goals were the primary focus of the specialized-treatment program.

Establishing supervision conditions and networks. As the first and, initially, most important program focus, probation conditions were designed and monitored. These conditions limited an offender's access to potential victims and prohibited behaviors, such as alcohol use, that could reduce his control over his deviant sexual impulses. Using a relapse-prevention supervision format described by Cumming and Buell (1997), the second author, a probation officer, monitored participants in office meetings between one and four times per month and, for higher risk cases, during periodic unannounced home visits on evenings and weekends. Each offender was required to enlist and educate a network of significant others, such as family, friends, and employers, who could help monitor his behavior in the community and serve as a support system during times of crisis. The probation

officer and treatment staff held, at a minimum, weekly telephone conferences to discuss patient progress and to develop plans to address areas of concern. The probation officer or treatment staff also attended a bimonthly county sexual-abuse team meeting where representatives from law enforcement, the prosecutor's office, and the state child-protection agency staffed new cases.

Accepting responsibility. Because most treatment interventions rely on an offender's ability to identify and later modify the types of feelings, thoughts, situations, and behaviors that were proximal to his sexually aggressive acts, admitting that he committed such an act was a crucial initial step in the treatment process. Offenders were educated about the importance of identifying and accepting responsibility for all aspects of their offending behavior. All participants read aloud in their treatment group collateral versions of their offense (e.g., police affidavits, victim statements). Discrepancies between the offender's version and collateral versions were discussed and challenged. Positive modeling by senior group members also helped new group members feel more comfortable discussing and accepting responsibility for their offenses. Early in treatment, participants were also asked to write an autobiography, which they read and discussed in group. It was used to place their offending behaviors in a larger context and to collaboratively refine their treatment plan.

Modifying cognitive distortions. Cognitive distortions are self-statements made by offenders that permit them to minimize, justify, or otherwise rationalize their sexually aggressive behavior (e.g., "She didn't resist, she must have wanted it") and other criminogenic cognitive patterns (Murphy, 1990). Evaluations of a participant's statements, test results, and record reviews were used to help identify his cognitive distortions. Treatment interventions focused on educating participants about the relationship of cognitive distortions to sexually aggressive behavior and employed a variety of cognitive restructuring procedures (Abel et al., 1984; Murphy, 1990). For example, participants identified and wrote examples of their distorted thoughts on one side of an index card and wrote challenges to those thoughts on the other side. These were presented in group for discussion and critique.

As another example, patients participated in role- reversal role plays in which they were asked to challenge their own distortions as asserted by other group members.

Developing victim empathy. Many sex offenders ignore, minimize, or misattribute the consequences of their sexually aggressive behavior toward their victims. This failure to appropriately empathize with their victims may be a causative and maintaining factor in their sexually aggressive patterns. Treatment interventions were designed to teach participants about the consequences of victimization and how to understand and value others. Interventions included having patients discuss the effects of their own and others' victimizations, view videotapes of victims discussing their sexual abuse, read books about victimization (e.g., *I Never Told Anyone*, *Father's Days*), write essays about their offenses from the victim's perspective, role-play meetings with the victim, and, in about 20% of the cases, conduct face-to-face meetings with the victim or a victim's relative.

Controlling sexual arousal. The factor that most consistently distinguishes sex offenders from other males is disordered sexual arousal profiles (Murphy & Barbaree, 1994). All patients underwent at least some behavioral conditioning designed to help them control, reduce, or eliminate their deviant sexual arousal and interests and to develop, maintain, or strengthen their appropriate sexual arousal and interests. Described briefly below, these techniques have been detailed elsewhere (Abel et al., 1984; Carey & McGrath, 1989; Maletzky, 1991; McGrath, in press).

All patients were taught the principles of orgasmic conditioning, an overt positive-conditioning procedure that uses the pairing of appropriate fantasies with masturbation and orgasm to condition appropriate sexual arousal and interests. All patients also completed a course of covert sensitization. In this covert, aversive, counterconditioning procedure, patients were asked to imagine performing chains of behaviors that led up to committing their sexual offenses and to interrupt these chains prior to actually committing an offense by imagining an aversive consequence or escaping the high-risk situation. This technique was used to reduce the deviant sexual-arousal patterns of those participants who had them and enabled all patients to rehearse cognitively

effective strategies to intervene in high-risk situations. A third technique, verbal satiation, was employed with approximately 35% of the participants who displayed deviant sexual arousal patterns during phallometric assessment or self-reported such problems. Verbal satiation is an extinction procedure in which a patient, following masturbation to orgasm to an appropriate fantasy, repeatedly verbalizes his deviant sexual fantasies until their sexually arousing properties have been extinguished through boredom. A final arousal control procedure—assisted covert sensitization—was employed with approximately 10% of participants. This is an overt, aversive, counterconditioning procedure similar to covert sensitization, except for the use of a foul odor (ammonia), rather than aversive imagery as an aversive stimulus.

The last three behavioral techniques described were conducted alone by the group member in the privacy of his own home and were audio-recorded. Portions of these tapes were then listened to and critiqued in group treatment by other participants and treatment staff.

Improving social competence. Deficits in a patient's social competence can inhibit his ability to initiate and maintain healthy consenting relationships with age-appropriate partners. Deficits in a patient's social competence can also lead to difficulties in managing emotions and interpersonal conflicts that are often precursors to sexual reoffense (Pithers, Cumming, Beal, Young, & Turner, 1988). The therapy-group setting was used to model, teach, and practice appropriate social interactions. When appropriate, treatment also focused on enhancing a patient's dating, anger-management, and stress-management skills. Although problems such as substance abuse, marital maladjustment, and unemployment were often the topic of discussion in treatment, patients were referred to programs specializing in these areas.

Developing relapse-prevention skills. Deviant sexual behavior is typically preceded by an identifiable and predictable pattern of behaviors, emotions, and cognitions. Relapse prevention is a theoretical model and set of strategies for identifying and interrupting these patterns and helping offenders maintain treatment changes over time. Relapse-prevention treatment strategies first described by Pithers, Marques, Gibat, and Marlatt (1983) were used. In essence, patients

discussed and charted in detail the behavioral, emotional, and cognitive patterns that led up to and were frequently repeated in the commission of their deviant sexual acts. These cycles were then reexamined to help patients develop strategies to avoid, cope with, and interrupt these maladaptive patterns.

NONSPECIALIZED TREATMENT

The nonspecialized-treatment group received treatment and supervision services that differed from the specialized-treatment group in several ways. Although a few nonspecialized-treatment participants were enrolled in peer group therapy, most received individual therapy. The treatment methods and models used were quite diverse. Nonspecialized-treatment participants did not undergo phallometric assessment and none received any of the arousal-control treatments described above. Nonspecialized-treatment therapists rarely initiated contact with the supervising probation officer and were reported by the probation officers to frequently view such contact, when it did occur, as an intrusion on the therapist-client relationship. For example, a probationer's missed appointment or his return to high-risk behavior, such as alcohol use, was often not reported to the supervising officer in a timely manner, if at all. Only a few nonspecialized-treatment programs conducted psychological testing, developed patient supervision networks, or employed intensive treatment modules on victim empathy or relapse prevention.

OUTCOME MEASURES

Recidivism data was obtained for all new sexual, nonsexual-violent, and nonviolent arrests and convictions during the follow-up period, based on criminal record checks in the states where each participant was known to have resided during the study (for definitions, see Vermont Department of Corrections, 1994). Probation violations served as an additional outcome measure. A probation violation was defined as a judicial ruling that an offender had failed to follow his probation conditions. Violations included noncriminal problem behaviors, such as missed probation or treatment appointments, unpaid fines, failed drug tests, and unauthorized communication with a vic-

tim. For the purposes of this study, violations did not include arrests or convictions for sexual, nonsexual-violent, or nonviolent criminal offenses. Thus, all outcome measures were mutually exclusive.

RESULTS

Unless otherwise noted, analyses involving continuous data were compared using one-way between-group ANOVAs. Chi-square tests for two or more independent groups were used with dichotomous categories. Except when indicated, an alpha level of .05 was used for all statistical tests.

PARTICIPANT CHARACTERISTICS

At follow-up, 70.4% (50) of the specialized-treatment participants had completed treatment. Treatment completion was defined as having substantially achieved the treatment goals previously described. All 6 individual-therapy participants had completed treatment, doing so, on average, in 11.5 months ($SD = 5.54$). The 44 group-treatment participants attended weekly group therapy for an average of 27.4 months ($SD = 16.7$), followed by monthly aftercare group meetings for an average of 17.4 months ($SD = 8.51$). Thus, the average program length for group therapy was 44.8 months ($SD = 20.6$). Wide variations in the length of treatment were related to offender variables such as severity of problem, level of participation, and ability to change behavior. Because of clinical efficiencies during the last 5 years of the program, most patients completed the weekly group-treatment phase in 18 to 24 months. The length of the aftercare component of the program remained constant. The length of treatment for the nonspecialized-treatment group was difficult to determine, but appears to have ranged from a few months to more than 6 years.

As we were unable to control for participant assignment, preliminary analyses were conducted to identify group differences that might be accounted for by participant characteristics frequently associated with recidivism. These risk factors were age, marital status, relationship to victim, actual or attempted penetration, substance use before or during the offense, prior criminal convictions, and time at risk

TABLE 1: Participant Characteristics by Group

	Treatment Group			
	Specialized (n = 71)	*Non-specialized (n = 32)*	*No (n = 19)*	*Total (n = 122)*
Mean participant age	37.4	33.2	34.7	34.3
Never married	39.4%	46.9%	42.1%	41.8%
Education (12 or more years)	60.5%	65.0%	52.6%	61.2%
Victim a stranger	12.7%	17.5%	26.3%	14.8%
Actual or attempted intercourse	43.0%	31.0%	57.9%	42.0%
Substance use during offense	29.6%	37.5%	42.1%	33.6%
Prior sex convictions	18.3%	9.3%	5.2%	13.9%
Prior nonsex violent convictions	12.7%	6.2%	31.6%*	13.9%
Prior nonviolent convictions	32.3%	37.5%	68.4%*	40.2%
Incarcerated at sentencing	25.4%	28.6%	31.6%	25.4%
Received incarcerated treatment	11.3%	18.8%	0	11.5%
Average months incarcerated	3.0	2.2	13.8*	4.4
Months at risk	65.2	63.8	52.9	62.9

*$p < .05$.

(Hanson & Bussiere, 1996; McGrath, 1991). These risk factors as well as other participant characteristics are presented in Table 1.

Significant between-group differences were found for prior nonsexual violent convictions, χ^2 (2, N = 122) = 6.54, $p < .01$, and prior nonviolent convictions, χ^2 (2, N = 122) = 10.67, $p < .01$. However, when between-group comparisons on these prior offense variables were limited to analyzing group differences between the specialized- and nonspecialized-treatment groups, no significant differences emerged. Clearly, the divergent group in this series of results was the no-treatment participant group. Considerably more participants in this group exhibited prior nonsexual violent and nonviolent offenses than did participants in either other group. A similar significant main effect was found for the average amount of time that participants were incarcerated during the study, F (2, 121) = 6.5, $p < .01$. It is not surprising that the no-treatment group was incarcerated for considerably longer periods of time than either of the other treatment groups, given their comparatively extensive criminal histories.

Another factor related to the likelihood of sexual reoffense is the type of sexual offense that an offender committed (Hanson & Bussiere, 1996; McGrath, 1991). As previously detailed, the greatest

number of offenders were molesters of female victims, incest offenders, and rapists, accounting for 84% of the total sample. Unfortunately, the small frequencies in several cells preclude meaningful, formal analysis. The only distribution concern we had was the high percentage of incest offenders in the specialized group (35.2%) compared to the nonspecialized group (18.8%) and the no-treatment group (26.3%). As incest offenders typically have the lowest rate of sexual reoffense among all sex offenders (McGrath, 1991), this could be a biasing factor in favor of the cognitive-behavioral approach.

A final series of between-group comparisons examined time-at-risk. Participants were at risk in the community for an average of 62.9 months ($SD = 40.73$). No significant differences between groups were found. This applied to both mean scores and variance measures indicating relatively homogeneous groupings on this factor. This becomes important as our sex-reoffense distribution frequencies were too sparse to consider survival analysis and the time-at-risk measure provided a partial control for the possibility of differential temporal effects.

TREATMENT OUTCOME

Recidivism data was collected for criminal reoffenses (i.e., sexual, nonsexual-violent, and nonviolent) along with probation violations for each of the three treatment groups. The data were individually analyzed for both the number of reoffenders and number of reoffenses. The results show that 23 (18.9%) participants were arrested for or convicted of committing 48 criminal reoffenses and 36 (29.5%) participants were convicted of 55 probation violations during the course of the study. The number of reoffenders by treatment group and type of reoffense is presented in Table 2. Of the 8 participants who committed a new sexual offense, 5 (63%) did so in the first 4 years of risk in the community. The 8 sexual reoffenders included 5 molesters of females, 2 rapists, and 1 exhibitionist. As we did not have sufficient cell frequencies to allow for analysis of treatment effects by type of reoffense, the data was initially analyzed for between-group differences. Only when treatment-group differences were manifest did we run independent analyses to include each type of criminal reoffense.

TABLE 2: Reoffenders by Treatment Group and Type of Reoffense

	Treatment Group			
	Specialized (n = 71)	*Non-specialized (n = 32)*	*No (n = 19)*	*Total Reoffenders (n = 122)*
Sexual	1 (1.4)	5 (15.6)	2 (10.5)	8 (6.6)
Nonsexual-violent	1 (1.4)	1 (3.1)	3 (15.7)	5 (4.1)
Nonviolent	5 (7.0)	5 (15.6)	7 (36.8)	17(13.9)
Probation violation	18 (25.4)	9 (28.1)	9 (47.3)	36 (29.5)

NOTE: Figures in parentheses indicate percentages in each group. Reoffense categories are mutually exclusive, but some participants were rearrested or reconvicted for more than one type of reoffense.

The primary purpose of the study was to compare the effectiveness of the specialized cognitive-behavioral treatment approach with the nonspecialized-treatment and no-treatment approaches. The first set of analyses considered the number of criminal reoffenders. A significant main effect was found across treatment groups, χ^2 (2, N = 122) = 10.7, $p < .01$. Post hoc (Mann-Whitney U) analyses found that the specialized-treatment participants, as a group, exhibited a significantly lower recidivism rate than the nonspecialized-treatment group ($z = 2.41, p < .05$) and the no treatment group ($z = 3.08, p < .01$). No significant differences were found between the nonspecialized and the no-treatment groups.

A second set of analyses, considering differential treatment effects, looked at the total number of criminal reoffenses in each treatment group. A one-way ANOVA for the total number of reoffenses exhibited the same statistical pattern of a significant main effect between treatment groups, F (2, 121) = 7.7, $p < .01$, with individual comparisons significant only between the specialized-treatment group and the remaining two groups. No other significant differences were found.

The significant differences found between the specialized- and nonspecialized-treatment groups motivated the comparison of the two groups by type of reoffense. However, the small number of participants in several cells necessitated converting the frequencies to proportions. A significant z test was found between the two treatment groups only for the number of sexual reoffenses ($z = 3.50, p < .01$). No differences were found for the two treatment groups on nonsexual-

violent or nonviolent reoffenses. Although the cell frequencies are small, these findings indicate that specialized treatment resulted in significantly lower sexual recidivism rates than the nonspecialized-treatment group.

Although not a primary focus of the study, it should be noted that there was considerable variability among treatment groups on the number of probation violations evident at follow-up. All told, the no-treatment group committed more than twice as many probation violations per participant (.84) as the specialized-treatment group (.41) and almost 3 times as many probation violations per participant as the nonspecialized-treatment group (.32).

As mentioned earlier, the specialized-treatment group contained a higher number of incest offenders than either of the other two groups. This suggested the possibility of a biasing effect because of the typically low recidivism rate for incest offenders. To examine whether such a bias existed, the reoffense data was analyzed with incest offenders removed. A t test indicated a significant difference, t 71 = 3.00, $p < .01$, and maintained the pattern of lower recidivism for the specialized-treatment group.

An additional set of analyses was undertaken to examine probation violations as a recidivism measure independent of criminal reoffenses. A significant main effect was found for treatment groups using the number of probation violations, F (2, 121) 2.9, $p < .05$. A Student-Newman-Keuls post hoc analysis indicated that this difference primarily resulted from the significantly higher number of probation violations in the no-treatment group when compared to the treatment groups that did not significantly differ from each other.

DISCUSSION

The present results support previous research findings on the efficacy of cognitive-behavioral and relapse-prevention treatment approaches with sex offenders (Alexander, 1994; Hall, 1995; Marshall et al., 1991). Furthermore, these results lend general support to the efforts of an increasing number of sex-offender treatment providers who are employing similar methods. As Freeman-Longo, Bird, Stevenson, and Fiske (1995) have reported in their most recent na-

tional survey, the percentage of adult sex-offender treatment providers that identify a cognitive-behavioral or relapse-prevention treatment model as their primary approach is now over 75%.

It is important to note some limitations of this study. Control of participant assignment and assessment of client motivation was not possible. However, analyses conducted found that the specialized- and nonspecialized-treatment groups appeared to be comparable. In addition, low base rates for sexual reoffense are an extremely common problem in sex-offender treatment outcome research (Barbaree, 1997) and were a problem in this study as well.

Despite these concerns, the study successfully addressed several other common methodological problems that reviewers have noted in previous sex-offender treatment outcome research (Furby et al., 1989; Quinsey, Harris, Rice, and Lalumiere, 1993). Study design factors diminished the likelihood that differential legislative, investigatory, prosecutory, judicial, or temporal variables influenced the results of the study. All participants were placed on community supervision in the same clearly defined geographic area, in the same judicial and child protection services district, during the same 12-year follow-up period. As only 1.6% of participants were lost to follow-up, attrition was not considered a problem. Last, multiple outcome measures were used.

Given these limitations and strengths, the results of the present study appear encouraging. Because the treatment program was designed to reduce sexual reoffense rates, the very low rate of sexual reoffense among the specialized-treatment group was the most noteworthy result. Also encouraging were the findings that the lowest rates of nonsexual criminal reoffenses were likewise found among the specialized-treatment group, although these findings did not reach statistical significance. Because the overall rates of nonsexual criminal reoffenses in the present study were not inconsequential, especially in the no-treatment group, this is a treatment target that appears to need further attention. Fortunately, there is an extensive body of literature on effective treatment programs for general criminal behavior (Andrews et al., 1990; Gendreau & Goggin, 1996). Especially promising is the work of Henning and Frueh (1996), also conducted in Vermont, which addresses thinking errors related to sexual offending as well as other criminal behavior. Clearly, sex-offender program designs that

broaden their treatment targets to include the reduction of nonsexual criminal behaviors will substantially expand their usefulness to society.

An unexpected finding was the comparatively high reoffense rate of molesters of nonfamilial females. Based on prior research findings (Hanson & Bussiere, 1996; McGrath, 1991), we would have expected that molesters of nonfamilial males, rapists, and hands-off offenders would have had higher reoffense rates than molesters of nonfamilial females. Conversely, that no incest offender in any treatment group reoffended was not a startling finding. Incest offenders, even untreated, typically have the lowest rates of sexual reoffense among all types of sex offenders (McGrath, 1991).

Consistent with the findings of Berliner, Schram, Miller, and Milloy (1995), the present study found that the most common type of reoffense was probation violations. The rate of probation violations in the specialized-treatment group may have been partially accounted for by an important treatment artifact. About 20% of probation violations brought against participants in this group resulted from behaviors first identified and reported to authorities by other specialized-treatment group participants. Participants said they made these reports to maintain the integrity of the treatment program, though other motivations, such as pleasing the therapists, should not be ruled out. No such reports emanated from participants in either of the other treatment groups. Another factor that may have influenced the probation violation rate of the specialized-treatment group was the frequent and open communication between treatment and probation staff. Regardless of whether these factors resulted in probation violations that otherwise would not have been detected, we are confident that problem behaviors such as missed treatment appointments and substance abuse were identified and addressed sooner with specialized-treatment participants than with participants in either of the other treatment groups.

Participants who presented the greatest overall reoffense risk to the community were those who refused treatment. Given that the no-treatment group had a high rate of prior nonsexual criminal offenses, predictably, they were also the most likely to commit new nonsexual criminal offenses (Hanson & Bussiere, 1996). In their interaction with probation and treatment staff, patients in the no-treatment group also tended to be uncooperative and noncompliant, certainly with regard to entering treatment. Of course, their failure to enter treatment par-

tially accounted for their high rate of probation violations. Although some of these participants claimed to have not committed the sex offenses for which they were convicted, ample evidence suggested otherwise. By any measure, this was a high-risk group. Because we are as yet unsure how to target the special needs of these resistant convicted sex offenders, approaches such as those developed by Schlank and Shaw (1996) to engage this population in treatment are well targeted.

The practical significance of the study's overall findings is another critical issue. Certainly, treatment that produces any reduction in victimization rates prevents enormous human suffering and, therefore, is a significant accomplishment in a society that values its members. Fiscal concerns are also important. Given the relatively low cost of providing outpatient treatment to sex offenders and the relatively high cost of incarcerating recidivists, even small positive treatment effects can result in large financial savings. McGrath's (1995a) cost-benefit analysis of outpatient sex-offender treatment in Vermont found that just a 1% decrease in sexual reoffense rates more than offset the state's investment in subsidizing those services. The reduction in reoffense rates suggested by the present study far exceeded this low threshold for cost-effective practice.

The design of the present study did not allow for the identification of the specific treatment variables that may have contributed to positive treatment outcomes. Nevertheless, an examination of the differences in services provided to the specialized- and nonspecialized-treatment groups suggests several promising targets for future research. Group treatment is certainly more cost-effective than individual treatment, and future research should examine whether one is more clinically effective than the other. The importance of close coordination between treatment and probation staff may be another fruitful area of inquiry. A further area for study is the effect of behavioral arousal-control strategies on overall treatment outcomes. A neglected area of research in the field of sex-offender rehabilitation concerns the interactional aspects of the treatment process. We suspect that future research will show that programs in which staff interact with patients in a direct, open, respectful, and nonpunitive manner will have higher rates of success than those without such interactions.

A final area of important research concerns risk assessment. Risk assessments conducted in the present study were used to identify low- and moderate-risk offenders who might be appropriately supervised and treated in the community. The approach used (McGrath & Hoke, 1995) appears to show some promise in that the sexual reoffense rate of the entire sample was quite low. However, it has not been empirically validated. Further research should focus on validating practical methods of assessing offender risk that will enable professionals to identify those offenders who can be placed, with reasonable safety, in the community. Thoughtful community placements can spare society the enormous financial burden of incarcerating offenders whose reoffense risk is low and is not likely to be appreciably altered by serving a long prison sentence. Of course, community safety is not the only consideration in sentencing decisions. Retribution is a common sentencing goal and incarceration is a method, albeit a very expensive one, of punishing offenders. The public policy challenge is to balance in a fiscally and socially responsible manner the important and sometimes conflicting goals of retribution, community safety, and rehabilitation.

REFERENCES

Abel, G. G., Becker, J. V., Cunningham-Rathner, J., Rouleau, J., Kaplan, M., & Reich, J. (1984). *The treatment of child molesters: A manual.* Unpublished manuscript, Columbia University.

Alexander, M. A. (1994, November). *Sex offender treatment: A response to the Furby et al., 1989 quasi-meta analysis II.* Paper presented at the Association for the Treatment of Sexual Abusers 13th Annual Conference, San Francisco, CA.

Andrews, D., Zinger, I., Hoge, R., Bonta, J., Gendreau, P., & Cullen, F. (1990). Does correctional treatment work: A clinically-relevant and psychologically-informed meta-analysis. *Criminology, 28,* 369-404.

Barbaree, H. E. (1997). Evaluating treatment efficacy with sex offenders: The insensitivity of recidivism studies to treatment effects. *Sexual Abuse: A Journal of Research and Treatment, 9,* 111-128.

Berliner, L., Schram, D., Miller, L. L., & Milloy, C. D. (1995). A sentencing alternative for sex offenders: A study of decision making and recidivism. *Journal of Interpersonal Violence, 10,* 487-502.

Brownmiller, S. (1975). *Against our will: Men, women, and rape.* New York: Simon & Schuster.

Carey, C. H., & McGrath, R. J. (1989). Coping with urges and craving. In D. R. Laws (Ed.), *Relapse prevention with sex offenders* (pp. 188-196). New York: Guilford.

Cumming, G. F., & Buell, M. M. (1997). *Handbook for community supervision of the sex offender.* Brandon, VT: Safer Society Press.

Finkelhor, D. (1994). Current information on the scope and nature of child sexual abuse. *The Future of Children, 4*, 31-53.

Freeman-Longo, R. E., Bird, S., Stevenson, W. F., & Fiske, J. A. (1995). *1994 Nationwide survey of treatment programs and models: Serving abuse-reactive children and adolescent and adult sex offenders*. Brandon, VT: Safer Society Press.

Furby, L., Weinrott, M., & Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin, 105*, 3-30.

Gendreau, P., & Goggin, C. (1996). Principles of effective correctional programming with offenders. *Forum on Corrections Research, 8*, 38-41.

Gordon, A., Holden, R., & Leis, T. (1991). Managing and treating sex offenders: Managing risk and needs with programming. *Forum on Corrections Research, 3*, 7-11.

Greer, J. G., & Stuart, I. R. (Eds.). (1983). *The sexual aggressor: Current perspectives on treatment*. New York: Van Nostrand Reinhold.

Hall, G.C.N. (1995). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology, 63*, 802-809.

Hanson, R. K., & Bussiere, M. T. (1996). *Predictors of sexual offender recidivism: A meta-analysis*. (User Report 96-04). Ottawa: Department of the Solicitor General of Canada.

Henning, K. R., & Frueh, B. C. (1996). Cognitive-behavioral treatment of incarcerated offenders: An evaluation of the Vermont Department of Corrections' cognitive self-change program. *Criminal Justice and Behavior, 23*, 523-541.

Henry, F. (1996, November). *Creating public policy through innovative prevention strategies*. Paper presented at the Association for the Treatment of Sexual Abusers 15th Annual Conference, Chicago, IL.

Knopp, F. H. (1984). *Retraining adult sex offenders: Methods and models*. Brandon, VT: Safer Society Press.

Koss, M. P. (1993). Rape: Scope, impact, interventions and public policy responses. *American Psychologist, 48*, 1062-1069.

Maguire, K., & Pastore, A. L. (1995). *Sourcebook of criminal justice statistics—1994*. Washington, DC: Government Printing Office.

Maletzky, B. M. (1991). *Treating the sexual offender*. Newbury Park, CA: Sage.

Marshall, W. L., & Barbaree, H. E. (1988). The long-term evaluation of a behavioral treatment program for child molesters. *Behavior Research and Therapy, 26*, 499-511.

Marshall, W. L., Jones, R., Ward, T., Johnston, P., & Barbaree, H. E. (1991). Treatment outcome with sex offenders. *Clinical Psychology Review, 11*, 465-485.

McGrath, R. J. (1990). Assessment of sexual aggressors: Practical clinical interviewing strategies. *Journal of Interpersonal Violence, 5*, 507-519.

McGrath, R. J. (1991). Sex offender risk assessment and disposition planning: A review of empirical and clinical findings. *International Journal of Offender Therapy and Comparative Criminology, 35*, 329-351.

McGrath, R. J. (1993). Preparing psychosexual evaluations of sex offenders: Strategies for practitioners. *Journal of Offender Rehabilitation, 20*, 139-158.

McGrath, R. J. (1995a). Sex offender treatment: Does it work? *Perspectives, 19*, 24-26.

McGrath, R. J. (Ed.). (1995b). *Vermont clinical practices guide for the assessment and treatment of adult sex offenders*. Williston, VT: Vermont Center for Prevention and Treatment of Sexual Abuse.

McGrath, R. J. (in press). Utilizing behavioral techniques to control sexual arousal. In M. S. Carich & S. E. Mussack (Eds.), *Handbook on sex offender treatment*. Brandon, VT: Safer Society Press.

McGrath, R. J., & Carey, C. H. (1987). Treatment of men who molest children: A program description. *Journal of Offender Counseling, 7*, 23-31.

McGrath, R. J., & Hoke, S. E. (1995). Vermont Assessment of Sex-offender Risk. In M. S. Carich & D. L. Adkerson, *Adult sex offender assessment* (pp. 70-72). Brandon, VT: Safer Society Press.

McGrath, R. J., Hoke, S. E., & Carey, C. H. (1995). *Treatment of adult sex offenders in Addison County: A ten-year review*. Unpublished manuscript.

McGrath, R. J., & Purdy, L. A. (in press). Referring child sexual offenders for psychological evaluation. *Journal of Addictions and Offender Counseling*.

Murphy, W. D. (1990). Assessment and modification of cognitive distortions in sex offenders. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offender* (pp. 331-342). New York: Plenum.

Murphy, W. D., & Barbaree, H. E. (1994). *Assessments of sex offenders by measures of erectile response: Psychometric properties and decision making*. Brandon, VT: Safer Society Press.

Number of sex offenders in prison increases 48% (Survey). (1991). *Corrections Compendium, 16*, 9-16.

Pithers, W. D., Cumming, G., Beal, L., Young, W., & Turner, R. (1988). Relapse prevention. In B. K. Schwartz (Ed.), *A practitioner's guide to treating the incarcerated sex offender* (pp. 123-140). Washington, DC: Department of Justice, National Institute of Corrections.

Pithers, W. D., Marques, J. K., Gibat, C. C., & Marlatt, A. (1983). Relapse prevention with sexual aggressives: A self-control model of treatment and maintenance of change. In J. G. Greer & I. R. Stuart (Eds.), *The sexual aggressor: Current perspectives on treatment* (pp. 214-239). New York: Van Nostrand Reinhold.

Quinsey, V. L. (1977). The assessment and treatment of child molesters: A review. *Canadian Psychological Review, 18*, 204-220.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Lalumiere, M. L. (1993). Assessing treatment efficacy in outcome studies of sex offenders. *Journal of Interpersonal Violence, 8*, 512-523.

Quinsey, V. L., Rice, M. E., & Harris, G. T. (1995). Actuarial prediction of sexual recidivism. *Journal of Interpersonal Violence, 10*, 85-105.

Roberts, M. C., Alexander, K., & Fanurik, D. (1990). Evaluation of commercially available materials to prevent child sexual abuse and abduction. *American Psychologist, 45*, 782-783.

Roys, D. T., & Roys, P. (1994). *Protocol for phallometric assessment: A clinician's guide*. Brandon, VT: Safer Society Press.

Salter, A. C., (1988). *Treating child sex offenders and victims: A practical guide*. Newbury Park, CA: Sage.

Schlank, A. M., & Shaw, T. (1996). Treating sexual offenders who deny their guilt: A pilot study. *Sexual Abuse: A Journal of Research and Treatment, 8*, 17-23.

Vermont Department of Corrections (1994). *Sentencing options: Criminal justice system user manual for selecting sentencing programs*. Waterbury, VT: Author.