Hofstra Law Review

Volume 41 | Issue 2 Article 3

2012

Are the Principles of Substance Abuse Treatment Transferable to Sex Offenders? A Review of the Methods and Effectiveness of Sex Offender Treatment Programs

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ARE THE PRINCIPLES OF SUBSTANCE ABUSE TREATMENT TRANSFERABLE TO SEX OFFENDERS?: A REVIEW OF THE METHODS AND EFFECTIVENESS OF SEX OFFENDER TREATMENT PROGRAMS

*Hon. Steven W. Brockett**

I. SUBSTANCE ABUSE TREATMENT PROGRAMS AND CRIME: A QUICK REVIEW

The United States has experienced a marked reduction in the crime rate over the last two decades.[1] While the causes behind this reduction are the subject of intense, continuing debate,[2] it is generally accepted that under certain circumstances treatment programs reduce recidivism in the general offender population.[3] Particularly in the area of substance abuse treatment, certain programs have demonstrated a consistent ability to reduce crime while at the same time reducing costs to the criminal justice system.[4]

The substance abuse treatment programs that are most effective in reducing recidivism rates rely on principles sometimes described as

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1. U.S. Dep't of Justice, *Uniform Crime Reporting Statistics*, UNIFORM CRIME REP. STAT., http://www.ucrdatatool.gov/Search/Crime/State/RunCrimeStatebyState.cfm (last updated Mar. 29, 2010).

2. *See, e.g.*, *America's Safer Streets*, ECONOMIST, Aug. 25, 2012, at 21-22.

3. *See, e.g.*, Laura Haring, *Study Finds Mental Health Courts Reduce Recidivism*, 248 N.Y. L.J., July 12, 2012, at 1; Zoe Tillman, *Ray of Hope for the Mentally Ill*, NAT'L L.J. & LEGAL TIMES, Jan. 7, 2013, at 1; David B. Wilson et al., *A Quantitative Review of Structured, Group-Oriented, Cognitive-Behavioral Programs for Offenders*, 32 CRIM. JUST. & BEHAV. 172, 198-99 (2005).

4. *See* Katy R. Holloway et al., *The Effectiveness of Drug Treatment Programs in Reducing Criminal Behavior: A Meta-Analysis*, 18 PSICOTHEMA 620, 623, 627 (2006); Jonathan Lippman, *How One State Reduced Both Crime and Incarceration*, 38 HOFSTRA L. REV. 1045, 1050-53 (2010) (discussing the role of problem-solving courts in the reduction of crime and incarceration costs in New York); Christopher T. Lowenkamp et al., *Are Drug Courts Effective: A Meta-Analytic Review*, J. COMMUNITY CORRECTIONS, Fall 2005, at 5, 5-6, 10; David B. Wilson et al., *A Systematic Review of Drug Court Effects on Recidivism*, 2 J. EXPERIMENTAL CRIMINOLOGY 459, 479 (2006).

"Risk, Need, and Responsivity."[5] The risk principle provides that treatment programs tend to be most effective in reducing crime when they target offenders at moderate or high risk to reoffend.[6] As these offenders are more likely to be re-arrested without intervention, larger reductions in recidivism rates can be achieved by directing treatment to them. The need principle provides that treatment programs are most effective when targeting the clinical disorders or functional impairments that make an offender likely to commit new crimes—that is, by targeting the offender's criminogenic needs.[7] An obvious example of this principle's implementation is a drug treatment court targeting a participant's substance abuse problem where that problem is the characteristic most often causing the participant to reoffend. The responsivity principle of treatment provides that programs are most effective when the cognitive-behavioral interventions offered target the offender's learning style and ability.[8] Programs individually tailored to the specific risks, needs, and cognitive abilities of the participants are more likely to be effective.

The substance abuse treatment programs that are proving so demonstratively effective in reducing recidivism are generally offered to non-violent offenders convicted of non-violent offences. For obvious reasons, violent offenders and particularly sex offenders may be viewed by the judiciary as ineligible or inappropriate to receive treatment as a primary sentencing option. But even violent sex offenders sentenced to lengthy prison terms are often returned to live in the community following their jail time. So the questions arise: Do the treatment programs and the principles that have been so effective in reducing recidivism in the drug offender population work with sex offenders? Do these programs and principles reduce sex offender recidivism rates and increase the safety of the community?

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5. *See* JAMES BONTA & D.A. ANDREWS, RISK-NEED-RESPONSIVITY MODEL FOR OFFENDER ASSESSMENT AND REHABILITATION 1, 5, 7 (2007), *available at* http://www.publicsafety.gc.ca/res/cor/rep/_fl/Risk_Need_2007-06_e.pdf; R. KARL HANSON ET AL., A META-ANALYSIS OF THE EFFECTIVENESS OF TREATMENT FOR SEXUAL OFFENDERS: RISK, NEED, AND RESPONSIVITY 2 (2009), *available at* http://www.publicsafety.gc.ca/res/cor/rep/_fl/2009-01-trt-so-eng.pdf.

6. HANSON ET AL., *supra* note 5, at 2; Christopher T. Lowenkamp et al., *The Risk Principle in Action: What Have We Learned from 13,676 Offenders and 97 Correctional Programs?*, 52 CRIME & DELINQ. 77, 88-89 (2006); *see* Douglas B. Marlowe, *Evidence-Based Sentencing for Drug Offenders: An Analysis of Prognostic Risks and Criminogenic Needs*, CHAP. J. CRIM. JUST., Spring 2009, at 173, 180-81.

7. BONTA & ANDREWS, *supra* note 5, at 5; Marlowe, *supra* note 6, at 181.

8. HANSON ET AL., *supra* note 5, at 2, 9.

This Idea will briefly examine the types of treatment generally offered to sex offenders and then review the leading scientific research on the effectiveness of these programs in reducing recidivism.

II. THE TYPES OF SEX OFFENDER TREATMENT

Three main types of treatment are used in attempting to address the criminogenic needs of sex offenders and prevent recidivism: non-behavioral psychotherapy, cognitive-behavioral treatments, and surgical and pharmacological treatments.[9]

A. Non-Behavioral Psychotherapy

Non-behavioral psychotherapy refers to treatment based on traditional theories of psychoanalysis. Sometimes referred to as "humanistic" or "psychodynamic," these treatments use group or individual counseling sessions combined with schooling and other activities in an attempt to help the offender understand the reasons that he[10] has committed the offense in question.[11] Once the most common type of sex offender treatment in the United States, non-behavioral psychotherapy has become less common because of questions regarding its effectiveness.[12]

B. Cognitive-Behavioral Treatments

Almost all cognitive-behavioral treatments for sex offenders use behavioral modification techniques that attempt to "normalize deviant sexual preferences."[13] This type of treatment focuses on attempting to modify the behavior in question, rather than creating understanding in the offender as to his motives. Because the strength of an offender's deviant sexual preferences has been found to significantly correlate with recidivism rates,[14] treatments that reduce these preferences are thought likely to reduce reoffending. Cognitive-behavioral treatments include training in social competence and empathy, along with sex education, anger management, sexual impulse control, family therapy, and relapse

9. Marnie E. Rice & Grant T. Harris, *Scientific Status*, *in* 2 MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY § 11:30 (2011-2012 ed., 2011) [hereinafter Rice & Harris, *Scientific Status*].

10. Males make up the overwhelming majority of sexual offenders. *Id.* § 11:24.

11. *See id.* § 11:31.

12. *See id.*

13. *Id.* § 11:33.

14. R. Karl Hanson & Monique T. Bussière, *Predicting Relapse: A Meta-Analysis of Sexual Offender Recidivism Studies*, 66 J. CONSULTING & CLINICAL PSYCHOL. 348, 351, 357 (1998).

prevention.[15] Cognitive-behavioral treatments are now the most common form of sex offender therapy provided in the United States.

Extreme forms of cognitive-behavioral treatment, once used more frequently, have become rare. These more extreme treatments, sometimes called aversion therapy, provide the offender with unpleasant stimuli in response to deviant sexual behaviors or fantasies.[16] The unpleasant stimuli are imposed in an attempt to reduce arousal from deviant sexual interests.[17] Because of ethical concerns in the medical community and questions regarding their effectiveness, these more extreme forms of cognitive-behavioral treatment have fallen out of favor.

C. *Surgical and Pharmacological Treatments*

Castration, also called orchiectomy, is the surgical removal of the testes.[18] Though generally used in the United States only for the treatment of prostate cancer,[19] Texas offers voluntary castration to certain sex offenders.[20] The Czech Republic currently uses surgical castration on some convicted sex offenders in an attempt to reduce the offender's sex drive.[21] Neurosurgery, involving the removal of part of the hypothalamus from the brain to decrease sexual arousal and compulsive behavior, was rare and has not been used since the mid-1900s.[22]

Pharmacological treatments for sex offenders similarly seek to reduce sexual recidivism by eliminating the sex drive of the offender. These treatments are frequently referred to as "chemical castration," although this is a misnomer. Pharmacological treatments involve the administration of anti-androgens.[23] An androgen is any chemical

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15. Rice & Harris, *Scientific Status*, *supra* note 9, § 11:33; Jeff Sirmons, *The Availability of Chemical Castration to Control Sex Drive*, CHAMPION, Dec. 2009, at 26.

16. Bhagwan A. Bahroo, *Pedophilia: Psychiatric Insights*, 41 FAM. CT. REV. 497, 504 (2003).

17. *Id.*

18. Marnie E. Rice & Grant T. Harris, *Is Androgen Deprivation Therapy Effective in the Treatment of Sex Offenders?*, 17 PSYCHOL. PUB. POL'Y & L. 315, 317 (2011) [hereinafter Rice & Harris, *Androgen Deprivation*].

19. *See id.* at 319.

20. TEX. GOV'T CODE ANN. § 501.061 (West 2012).

21. Dan Bilefsky, *Europeans Debate Castration of Sex Offenders*, N.Y. TIMES, Mar. 11, 2009, at A1; COUNCIL OF EUR., REPORT TO THE CZECH GOVERNMENT ON THE VISIT TO THE CZECH REPUBLIC CARRIED OUT BY THE EUROPEAN COMMITTEE FOR THE PREVENTION OF TORTURE AND INHUMAN OR DEGRADING TREATMENT OR PUNISHMENT (CPT) FROM 25 MARCH TO 2 APRIL 2008, at 11 (2009), *available at* http://cpt.coe.int/documents/cze/2009-08-inf-eng.htm.

22. Bahroo, *supra* note 16, at 505; Luk Gijs & Louis Gooren, *Hormonal and Psychopharmacological Interventions in the Treatment of Paraphilias: An Update*, 33 J. SEX RES. 273, 274 (1996).

23. Rice & Harris, *Androgen Deprivation*, *supra* note 18, at 317.

compound that controls or stimulates the development of male physical characteristics.[24] Anti-androgens are drugs that interfere with androgen production, primarily by reducing the body's production of testosterone.[25]

Androgen deprivation therapy ("ADT") pharmacologically reduces the sex drive of the offender. In contrast to surgical castration, this result is completely reversible upon withdrawal of the anti-androgens.[26] Medroxyprogesterone acetate ("MPA") and cyproterone acetate ("CPA") are the two most commonly administered drugs in androgen deprivation therapy.[27] MPA, under the trade name Depo-Provera, is used by many women as a contraceptive.[28] During ADT, male offenders receive significantly higher doses of MPA through weekly intramuscular injections.[29] The injections limit the production of testosterone in the offender in an attempt to reduce deviant, and indeed all, sexual interest.

Anti-androgens have serious and unpleasant side effects that often significantly reduce an offender's willingness to undergo this treatment.[30] These side effects may include weight gain, fatigue, depression, insomnia, nausea, hypertension, hair loss, and the general increase in female physical characteristics.[31]

Laws providing for androgen deprivation therapy for sex offenders were first enacted in the United States in 1996 and have repeatedly withstood legal challenge.[32] Six states (California,[33] Florida,[34] Iowa,[35] Louisiana,[36] Montana,[37] and Wisconsin[38]) currently permit, and in some

24. *Id.* at 316.

25. *Id.* at 317.

26. Rice & Harris, *Scientific Status*, *supra* note 9, § 11:32. The effects of castration can, under certain circumstances, be reversed through the use of anabolic steroids. *See id.*

27. *Id.*

28. John T. Melella et al., *Legal and Ethical Issues in the Use of Antiandrogens in Treating Sex Offenders*, 17 BULL. AM. ACAD. PSYCHIATRY & L. 223, 224 (1989); Rice & Harris, *Androgen Deprivation*, *supra* note 18, at 317.

29. Gijs & Gooren, *supra* note 22, at 275.

30. *See id.* at 276.

31. *Id.*; Melella et al., *supra* note 28, at 225.

32. In Michigan, however, the Court of Appeals in 1984 vacated a sentence requiring a convicted sex offender to submit to ADT as a condition of probation. People v. Gauntlett, 352 N.W.2d 310, 313, 318, 321 (Mich. Ct. App. 1984). The trial court had imposed the condition in the absence of any statutory authority for ADT. *Id.* at 315. In addition to the lack of statutory authorization, the appellate court found that because, as of 1984, ADT had "not gained acceptance in the medical community as a safe and reliable medical procedure," the defendant's ability to find treatment and comply with the condition would be virtually impossible. *Id.* at 316.

33. CAL. PENAL CODE § 645 (West 2010).

34. FLA. STAT. ANN. § 794.0235 (West 2007).

35. IOWA CODE ANN. § 903B.10 (West Supp. 2012).

36. LA. REV. STAT. ANN. § 15:538(C) (2012).

37. MONT. CODE ANN. § 45-5-512 (2011).

cases require, ADT for convicted sex offenders. Georgia authorized the practice until 2006,[39] as did Oregon until 2011.[40] Where employed, androgen deprivation therapy is usually used in conjunction with cognitive-behavioral treatments.[41]

III. THE EFFECTIVENESS OF SEX OFFENDER TREATMENT

While there have been many studies on the recidivism of sex offenders, little scientifically reliable research exists on the effectiveness of sex offender treatment. The most comprehensive study of sex offender treatment appears in *A Meta-Analysis of the Effectiveness of Treatment for Sexual Offenders: Risk, Need, and Responsivity*, by Hanson, Bourgon, Helmus & Hodgson.[42] These Canadian researchers examined 130 previously conducted studies on sex offender treatment. Of these, 105 studies were rejected for failing to meet the minimum quality control guidelines established for scientifically reliable research.[43] The deficiencies in the quality of the research related primarily to the lack of published, peer-reviewed studies and the failure of programs to randomly assign participants to the subject programs or control groups.[44] On its face, it seems shocking that the research on the effectiveness of sex offender treatment is of such "poor" quality. What must be recognized, however, is that these programs were not developed as clinical trials. Rather, they were developed as treatment, with effectiveness studied only after the fact. Even under the most controlled research conditions, reliable clinical trials may prove extremely difficult to develop. As an example, consider the medical profession's fifty-year struggle to develop reliable trials on the effectiveness of mammograms

38. WIS. STAT. ANN. § 302.11(1)(b) (West Supp. 2012).

39. GA. CODE ANN. § 16-6-4(d)(2) (1998) (repealed 2006).

40. OR. REV. STAT. ANN. § 144.625 (West 2003) (repealed 2011).

41. Sirmons, *supra* note 15, at 26; Rice & Harris, *supra* note 9, § 11:33.

42. HANSON ET AL., *supra* note 5, at 3. A meta-analysis is a statistical procedure in which a researcher reviews scientific studies on a particular question, selects only those studies that are scientifically reliable as determined by the use of standardized criteria in that field, and averages the results of these good-quality studies to determine the statistically reliable results of the research. WEST HUDDLESTON & DOUGLAS B. MARLOWE, PAINTING THE CURRENT PICTURE: A NATIONAL REPORT ON DRUG COURTS AND OTHER PROBLEM-SOLVING COURT PROGRAMS IN THE UNITED STATES 9 n.3 (2011), *available at* http://www.ndci.org/sites/default/files/nadcp/PCP%20Report%20FINAL.PDF.

43. HANSON ET AL., *supra* note 5, at 3.

44. *See id.* at 1, 10; *see also* J. Michael Bailey & Aaron S. Greenberg, *The Science and Ethics of Castration: Lessons from the* Morse *Case*, 92 NW. U. L. REV. 1225, 1230-31 (1998) (discussing the empirical limitations of research on the effectiveness of castration in reducing the recidivism rates of sex offenders).

in the reduction of breast cancer mortality.[45] Viewed in this light, it is not surprising that the vast majority of sex offender treatment studies fail to satisfy clinical research standards.

A. The Effectiveness of Non-Behavioral Psychotherapy

The leading study on the effectiveness of non-behavioral psychotherapy followed 231 men who were randomly assigned to either intensive probation or intensive probation with group psychotherapy.[46] The men given the group psychotherapy had higher rates of re-arrest for sexual offenses than those assigned to intensive probation alone.[47] Further, men who received the full forty-week regime of group psychotherapy (the optimal level) were significantly more likely to re-offend.[48]

Two leading researchers have found that "the few [non-behavioral psychotherapy] programs that have been subjected to controlled evaluation have provided no evidence that they reduce the likelihood of future sex offenses by child molesters or rapists."[49]

B. The Effectiveness of Cognitive-Behavioral Treatments

The most complete review of the research on cognitive-behavioral treatment programs is gathered in the meta-analysis by Hanson, Bourgon, Helmus and Hodgson. After rejecting 105 of the studies examined for failing to meet basic quality control standards for research, Hanson and his colleagues reviewed twenty-three of the twenty-five remaining studies.[50] They tentatively found that sex offenders receiving cognitive-behavioral treatment had lower sexual and general recidivism rates than those of comparison groups who did not receive treatment.[51] Those programs that targeted criminogenic needs and delivered the treatment in a manner designed to engage the offender were found to be particularly likely to reduce sexual recidivism.[52] There was, however, a

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45. SIDDHARTHA MUKHERJEE, THE EMPEROR OF ALL MALADIES 291-94, 302-03 (2010); David H. Newman, *Ignoring the Science on Mammograms*, N.Y TIMES: WELL (Nov. 28, 2012, 3:19 PM), http://well.blogs.nytimes.com/2012/11/28/ignoring-the-science-on-mammograms/.

46. Joseph J. Romero & Linda M. Williams, *Group Psychotherapy and Intensive Probation Supervision with Sex Offenders*, FED. PROBATION, Dec. 1983, at 36, 37-38.

47. *Id.* at 39, 41.

48. *Id.* at 40-41, 41 tbl.7.

49. Rice & Harris, *Scientific Status*, *supra* note 9, § 11:31.

50. HANSON ET AL., *supra* note 5, at 3. Two studies were excluded because they examined unusual research issues. *Id.* at 3-4.

51. *Id.* at 13.

52. *Id.* at 17.

caveat: Even among the twenty-three studies found minimally acceptable for review, the research designs were generally found to be "weak."[53] The researchers found that "[r]eviewers restricting themselves to the better quality, published studies . . . could reasonably conclude that there is no evidence that treatment is effective in reducing sexual offence recidivism."[54]

In reviewing the cognitive-behavioral treatments used in all 130 sex offender programs, the researchers found that more than 80% of the programs failed to focus on the criminogenic needs of the participants.[55] The treatments tended to focus on offender responsibility and social skills training rather than addressing the offender's sexual deviance.[56] Since the strength of an offender's sexual deviance has been found to strongly predict sexual recidivism,[57] these treatment programs appear to have a serious design flaw that reduced the likelihood of affecting a reduction in re-offense rates.

Significantly, the scientific research conducted to date has shown that the motivation of the offender may be as important as any treatment. Current research is:

> consistent with the conclusion that agreeing to and persisting with treatment over the long term serves as a filter detecting those offenders who are least likely to re-offend, and that the nature of the treatment (so long as it is not exclusively [non-behavioral psychotherapy]) has little or no specific effect on outcome.[58]

In contrast, offenders who refuse to enter into, quit, or are discharged from programs have higher recidivism rates.[59]

It is fair to say that the effectiveness of cognitive-behavioral treatments has not yet been established.[60] At a minimum, further peer-reviewed study of programs designed to target and reduce the participants' sexually deviant behavior is needed.

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53. *Id.* at 23.
54. *Id.*
55. *See id.* at 25.
56. *Id.*
57. Hanson & Bussière, *supra* note 14, at 351, 357.
58. Rice & Harris, *Scientific Status*, *supra* note 9, § 11:33.
59. *Id.* § 11:45.
60. *Id.* § 11:33; *see* Vernon L. Quinsey et al., *Assessing Treatment Efficacy in Outcome Studies of Sex Offenders*, 8 J. INTERPERSONAL VIOLENCE 512, 517-19 (1993).

C. *The Effectiveness of Surgical and Pharmacological Treatments*

The published studies of surgical or pharmacological treatments generally fail to meet the guidelines for scientifically reliable research.[61]

Studies on the results of surgical castration are few and uncontrolled, but it seems clear that sexual recidivism rates among surgically castrated sex offenders are low, although not nonexistent.[62]

Studies on the effectiveness of pharmacological ADT are more numerous but of questionable scientific validity. The research available suggests that re-offense rates are lower for offenders who enter into and remain in treatment involving anti-androgen drugs.[63] The research also suggests, however, that few offenders will voluntarily agree to ADT and fewer still will remain in treatment.[64] Further, the recidivism rates of offenders who are compelled to take anti-androgens as a condition of release on parole are no better than those of the general sex offender population.[65] As with other sex offenders, it seems that the willingness to enter into and complete pharmacological treatments may be as important as the treatment itself.[66]

The effectiveness of pharmacological treatments, while viewed encouragingly by some researchers, has not been reliably established by the existing scientific research. As summed up by two leading researchers:

> [O]ne must regard the professional literature as very curious. The outcome evaluation research is remarkably weak, so weak that, were the treatment not so plausible, it would have to be regarded as empirically unsupported. On the other hand, many respected and

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61. Friedrich Lösel & Martin Schmucker, *The Effectiveness of Treatment for Sexual Offenders: A Comprehensive Meta-Analysis*, 1 J. EXPERIMENTAL CRIMINOLOGY 117, 118 (2005); *see* Rice & Harris, *Androgen Deprivation*, *supra* note 18, at 323.

62. Bailey & Greenberg, *supra* note 44, at 1230-32; Rice & Harris, *Androgen Deprivation*, *supra* note 18, at 323 (discussing studies that show recidivism rates ranging from less than three percent to eleven percent).

63. *See, e.g.*, Rice & Harris, *Scientific Status*, *supra* note 9, § 11:32.

64. *See* R. Langevin et al., *What Treatment Do Sex Offenders Want?*, 1 ANNALS SEX RES. 363, 367 (1988); Rice & Harris, *Scientific Status*, *supra* note 9, § 11:32.

65. *See* R. Karl Hanson & Andrew J.R. Harris, *Where Should We Intervene?: Dynamic Predictors of Sexual Offense Recidivism*, 27 CRIM. JUST. & BEHAV. 6, 23-24 (2000).

66. *See* Rice & Harris, *Scientific Status*, *supra* note 9, § 11:33. According to Rice and Harris:

> [T]he empirical data to date suggest that antiandrogen drugs and cognitive-behavioral treatments are valuable in the prevention of future sexual offenses if only in the sense that they may provide a "dynamic" risk predictor—that is, although we have no evidence to date that they reduce the likelihood of recidivism, they do at least serve as a "filter" to identify those offenders who are most likely to fail upon release.

Id.

experienced clinicians, while acknowledging the weakness of the evidentiary basis, are strong proponents.[67]

Where sexual offenses are caused by deviant sexual desires, both surgical and pharmacological treatments address the criminogenic needs of the offender by reducing or eliminating sex drive. Some sexual offenders, however, are not primarily motivated by deviant sexual desires.[68] Pharmacological and even surgical treatment may be ineffective in dealing with these offenders.

IV. A NOTE ON SUPERVISION AND COMMUNITY NOTIFICATION

Possibly because no positive treatment effects have been established via therapy or pharmacology, the criminal justice system has recently shifted its focus to programs designed to reduce the opportunity for sexual aggression while the offender is in the community. These programs include intensive supervision of the offender while on either probation or parole, and community notification programs via sex offender registration.

While there is no research on whether intensive supervision or community notification has any effect on sex offender recidivism, there is research regarding the effect of enhanced supervision on the general offender population.[69] This research indicates that when limited to offenders with a moderate or high risk of re-offending and when coupled with rehabilitation components, intensive supervision can reduce recidivism.[70] As shown by the scientific research on the effectiveness of sex offender treatment, any benefits of intensive supervision on the recidivism rates of the general offender population may not be easily transferable to the sex offender population.

V. CONCLUSION

The scientific research presently available has failed to establish that sex offender treatment programs will be able to deliver the reduction in recidivism rates that substance abuse treatment programs have provided. While quality scientific research is limited, it appears that the standard models of non-behavioral psychotherapy do not reduce arrest rates among participants. The results of cognitive-behavioral therapy,

67. Rice & Harris, *Androgen Deprivation*, *supra* note 18, at 326.

68. For a discussion of the sexual and violent motivations of sex offenders, see Bailey & Greenberg, *supra* note 44, at 1227-28.

69. *See* Rice & Harris, *Scientific Status*, *supra* note 9, § 11:33.

70. *Id.*; *see* Paul Gendreau et al., *Intensive Rehabilitation Supervision: The Next Generation in Community Corrections?*, FED. PROBATION, Mar. 1994, at 72, 74.

while slightly more encouraging, have not been demonstrated by scientifically reliable research, and more exacting study is needed. Often, cognitive-behavioral treatment programs have failed to focus on the criminogenic needs of the offenders in that they place insufficient emphasis on reducing deviant sexual interest. The pharmacological treatment of sex offenders, while seemingly based on valid medical principles and adopted in multiple states over the last fifteen years, has not produced scientifically reliable research establishing reduced recidivism rates.

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