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Prosocial Interventions for Juveniles with Sexual Offending Behaviors

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To be published as:

Ralph, N. (2011). Prosocial Models of Treatment with Sexually Aggressive Youth."In B. Schwartz, Ed., The Sex Offender, Vol. 7, New York: Civic Research Institute.Please do not copy or quote without the author's and publisher's permission.

Overview

Organized programs for treating juveniles with sexual offending behaviors (JSO) have been in existence for a little over 30 years. Research on program models for these youth, however, is still in a formative stage. A major goal for the JSO field would be to have treatment models based on useful theory, with adequate evidence for their effectiveness, which were practical and affordable to implement, and had favorable ratings from practitioners and youth. There is a "prosocial" model based on Aggression Replacement Training (ART) (Goldstein, Glick, and Gibbs,1998) that has prospect of achieving this goal. This prosocial model is based on theory and research about adolescent development and what are effective treatment methods for probation youth generally and JSO youth specifically. The aim of this model is to enhance social skills and problem solving, and get youth on a normal, age appropriate developmental track so that they can lead productive lives with positive relationships where others are not harmed.

Introduction

The goal of this chapter is to discuss the advantages of a prosocial model for JSO treatment, ART. The history of JSO treatment will be discussed, and changes in current practices, relevant to this prosocial model. Outcome literature regarding treatment effectiveness from the general probation population, and JSO youth, will be reviewed. The review will describe qualities of effective interventions relevant to prosocial models, including ART. ART, one of several prosocial models, will be described, and its advantages based on research on adolescent development. An intervention with JSO youth using an ART model, will be presented to demonstrate the effectiveness and practicality of this approach.

In writing this chapter, the author's perspective was influenced by his work as a clinical psychologist with the general and JSO probation populations, in both outpatient and detention settings. It was also influenced by his training as an epidemiologist concerned about critical thinking regarding the evidence base of practice and the public health implications. To be useful from a public health perspective, treatment models must not only be effective, but readily implemented. In addition, this chapter reflects the author's background as a neuropsychologist who does clinical assessment in brain-behavior areas, with an awareness of the neuropsychological development during adolescence. This background contributes to an approach that will combine information from existing theory and research, but also the author's clinical experience.

History of Treatment Models

Knoff, Freeman-Longo, and Lane (1997) discuss the history of programs for the treatment of youth with sexually abusive behaviors. One of the first was The Adolescent Clinic of the University of Washington School of Medicine which opened in 1978. Community based programs for this population, developed in Minnesota, were influenced by the University of Minnesota's Program in Human Sexuality. Several programs began in Colorado correctional settings which used cognitive-behavioral models. As the authors note, "Because there were not scientifically based theories or model programs to guide their development, most of the early programs developed their understanding of sexually abusive youth and designed treatment approaches through trial and error. Common elements of these programs were family, group, and individual therapy with an educational component" (p. 186).

These programs were created in part because of the development of county or state run agencies for identifying child abuse spurred by the passage of the federal Child Abuse Prevention and Treatment Act of 1974 which provided funding for mandatory reporting laws. (National Association of Counsel for Children, n.d.). Meyers (2008) for example notes, "In 1965, California had no county system of child protective services. In most states, protective services were not available statewide. Most communities lacked twenty-four hour coverage. Thus, for the first six decades of the twentieth century, protective services in most communities were inadequate and in some places nonexistent" (p. 454). If victims were identified, then perpetrators were as well, many of whom were adolescents, which then required organized methods of treatment. Up to 50% of those who sexually abuse children are under age 18 (Hunter, Figueredo, Malamuth,& Becker, 2003). Some studies report between 30% to 50% of all child sexual abuse can be attributed to adolescent perpetrators (Charles & Mcdonald, 2005).

Prescott and Longo (2005) describe that adolescent treatment program models were often derived from adult models, whereas the characteristics, developmental and cognitive factors, prognosis, and effective treatments for adolescents and adults are quite distinct. Approaches from adult treatment such as phallometry, polygraphy, and arousal reconditioning were imported into adolescent treatment without any evidence regarding their need or effectiveness. Adolescents are still rapidly developing and many assumptions imported wholesale from adult offender treatment regarding causes, effective assessment and treatment methods, are not appropriate for adolescents. Books such as *Pathways* (Kahn, 2001) were taken as an essential part of treatment, when they were developed to meet an emergent need, without research on effectiveness or use of developmental theory.

In many settings, including several where the author worked, there was a consensus about what was adequate treatment for juveniles with sexual offending (JSO) behaviors. This model was derived from the writings of Kahn (2001), Steen and Monnette (1989), and Lane (1997), which can be described as the "Sexual Offense Cycle Model" shown in Table 1. This model represented the best thinking available at the time. Subsequent research provides a basis for critiques of this model, both on theoretical and empirical bases. This model was not based on research on the psychological, emotional, cognitive, sexual, or biological development of adolescents generally, which characteristics uniquely define probation youth with both nonsexual and sexual offending behaviors, what are the treatable criminogenic factors for JSO adolescents, or which treatment methods are effective to prevent general and sexual recidivism for the JSO population.

Current Practices:

The Safer Society Press Survey of Treatment (McGrath, Cumming, Burchard, Zeoli & Ellerby, 2009) chronicled changes in JSO practice patterns over time. Their survey described the top three components of models used in community programs for adolescents in the United States in 2002 and 2009. An adaptation of their results is shown in Table 2. It reports results regarding residential programs. As can be seen, relapse prevention had the biggest change, a

decline of almost 25%. This may reflect moving away from an older adult based model of relapse prevention to other models. They note about a third of programs in 2009 were using the Good Lives model and a quarter used a Self Regulation model, both of which are described in their survey.

Many factors likely contribute to the changes noted in the Safer Society survey, including research regarding effective treatment for JSO youth which will be discussed in the next sections of this chapter.

Effective Models of Probation Youth Treatment

There is a large body of research on effective treatment for the juvenile probation population generally. This research clearly has "face validity" in considering treatment for JSO youth who are a subset of the general juvenile probation population. While not guaranteed, it is reasonable to assume that models effective for treating the general probation population would also be effective for treating the JSO subset with some modifications. For example, this is the approach used with Multisystemic treatment with JSO youth (Borduin, Schaeffer & Heiblum, 2009).

Lipsey and Wilson (1998) note in their meta-analysis of "what works" for juvenile programs, that quality institutional programs that treat youths humanely, operated by caring and professional staff who use cognitive-behavioral, and skill-building interventions are effective at reducing recidivism for serious juvenile offenders. Lipsey, Wilson, and Cothern (2000) reviewed effective treatments for serious juvenile offenders. They note that programs that had positive effects for treatment of non-institutionalized youth were those that focused on individual counseling, interpersonal skills, and had behavioral programs. For institutionalized youth, the methods that were effective included interpersonal skills, and had teaching family homes (family style skill based groups homes). They also report programs that had weak or no effect were wilderness/challenge, milieu therapy, early release, probation/parole, deterrence programs, and vocational programs.

In describing teaching interpersonal skills they note the following methods were effective: Twelve 1-hour sessions in social skills training over 6 weeks (Spence & Marzillier, 1981), Aggression Replacement Training, which took place in 30 sessions over 10 weeks (Glick & Goldstein, 1987), and The Social Interactional Skills Program which was a structured didactic program that encouraged youth to recall problematic past experiences and identify negative social stimuli that affected their social interactions (Shivrattan, 1988).

A meta-analysis of effect size was done for 77 programs using what were described as cognitive behavioral methods (Landenberger & Lipsey, 2005). Both adult and adolescent probation populations were studied. The outcome analyzed was recidivism and the subjects were from the general probation population, not specifically for those with sexual offending convictions. It compared those treated with what they describe as cognitive behavioral methods versus untreated controls. They found the mean overall effect size measured by an odds ratio was 1.64. This translated into a 12 month recidivism rate of 29% for the CBT groups, versus 40% for the control groups, a 27% reduction. The CBT methods used were: Aggression Replacement Training, Reasoning and Rehabilitation, Moral Reconation Therapy, Thinking for a Change, Interpersonal Social Problem Solving, Multisystemic Therapy, and other manualized CBT models.

There was no difference in the mean effect size between treatment options. The term CBT does not appear to be used strictly, and refers to structured interventions that are manualized and include rigorous training and supervision. For example, Multisystemic Therapy, is not CBT model, but a family based social ecological model.

Washington State reported on evidence based programs for adolescents on probation (Washington State Institute for Public Policy, 2004). They found ART to be the most cost effective treatment for probation youth. ART delivered "competently" reduces the 18-month felony recidivism by 24 percent. The benefit to cost ratio is \$11.66 (that is for every \$1 spent you get back \$11.66 in benefit to the state or victims) with competent treatment. If ART was used, but not competently delivered, there was in fact a net negative benefit of \$3.10, that is it cost more than the benefits delivered.

In a subsequent research, Aos, Miller and Drake (2006) reported on Washington State's evidence regarding the effectiveness of programs. They reported on adult and juvenile programs and treatment approaches. Juvenile programs for which there is complete data are presented and adapted in Table 3. Their article provides a bibliography and description of each program approach, not reproduced here. ART had the lowest cost per participant of researched treatment programs, and the lowest marginal cost for percent reduction in the crime rate. Some programs, including juvenile regular surveillance and intensive probation supervision, juvenile wilderness programs, and juvenile intensive parole supervision, didn't show a reduction in crime and had a net negative benefit, that is they cost more than they delivered in benefits. Scared Straight was furthermore associated with a 6.8% increase in crime rates.

Lipsey (2009) in his most recent review of the effectiveness of interventions for reducing the recidivism of juvenile offenders reports several findings. JSO populations were not identified as being part of this study group. Interventions were equally effective, with some qualifications, regardless of the level of probation supervision they received. The exceptions to this were that counseling approaches as a whole were somewhat less effective with incarcerated youth, and skill building approaches were somewhat more effective with youth in the community without probation supervision. Interventions with therapeutic approaches such as counseling or skill building were more effective than those based on control or coercion. Also interventions were more effective with youth with higher levels of delinquency risk, except those with a higher level of aggression and violence. The largest mean effect size were those interventions that used cognitive-behavioral methods, but other methods such as mentoring also were effective. They found a range of interventions were effective if well implemented and targeted at appropriate youth, not only more well known or "brand name" interventions. In his view, effectiveness depends on whether the intervention was implemented with high quality and with high risk offenders. He notes, "It does not take a magic bullet program to impact recidivism, only one that is well made and well aimed" (Lipsey, 2009, p. 145). As with other research, approaches that used only deterrence and discipline, such as boot camps or "Scared Straight" programs were associated with an increase in recidivism. He reported that only a relatively few "brand name" interventions are usually assumed to "have the capacity to work." In contrast in this study, the average program of a generic type that was well implemented was effective. This is at odds, he reports, with the "conventional wisdom" that links effective treatment to a few specific program models. For example, Blueprints for Violence Prevention, the National Registry of Evidence-based Programs and Practices, and the Office of Juvenile Justice and Delinquency Prevention's Model Programs Guide rates effectiveness based on "name brands" rather than by other program characteristic is which he reports are important.

In an unpublished study, Tennyson (2009) described factors associated with program effectiveness in reducing recidivism, including the level of rigor with which the program was implemented. Four criteria were used to measure rigor of implementation. These were: 1. whether a treatment manual was used, 2. whether training was provided to practitioners, 3. whether there was supervision of therapists, and 4. whether adherence checks were used. A high level of integrity consisted of using three criteria, a medium level was given if there were two criteria used, and low if only one or no criteria was used. Effect size (d+) in this study is an adjusted multivariate version of the classic effect size statistic "d" described by Cohen (1988) which is the difference between two groups (e.g., in this case treatment versus control) divided by the standard deviation of the population. A difference of a half a standard deviation would have a "d" or effect size of .50 which is classified as medium. Tennyson reports those with high levels of treatment integrity had the highest levels of reduction in recidivism adjusted effect size (d + = 0.46; CI, 0.37 to 0.54), whereas those with medium to low showed still a positive but lower effect size (d + = 0.06; CI, 0.02 to 0.11). Those with no integrity measures showed a negative effect (d+ = -0.08; CI, -0.12 to -0.05). Also as with other studies, negative effects were found for those interventions that used discipline oriented approaches such as boot camps (d + =-0.23; CI, -0.27 to -0.19). Counseling and skill building approaches had approximately equal effect sizes (d + = 0.27; CI, 0.20 to 0.34 vs. d + = 0.25; CI, 0.18 to 0.33). Programs offering multiple services were the most effective. As with the most recent Lipsey study (2009), JSO populations were not identified as being part of study populations.

The literature regarding treatment effectiveness with probation youth is by now well developed and complex. The intention of this brief review regarding the general juvenile probation population, is to present issues relevant to developing effective prosocial models of JSO treatment. A comprehensive review of the literature is beyond the scope of this article. Related research such as "Need, Risk, Responsivity" principles in outcome research (Hanson, Bourgon, Helmus, & Hodgson, 2009), are not addressed here. To summarize, the most recent reviews (Lipsey, 2009; Tennyson, 2009) find that treatment methods that have multiple (multiple services and/or multisystemic), or therapeutic (counseling or skill building) services had the highest effectiveness. Also those treatments that had the highest treatment fidelity were also the most effective. A hypothesis why"get tough" are not effective is that because they don't teach new prosocial skills for youth, or reduce other criminogenic factors.

Effective Models of JSO Treatment

When compared to the literature on probation youth generally, there is limited research on the effectiveness of treatment with JSO youth. Reitzel and Carbonnel (2006) conducted a meta-analysis of nine studies of JSO treatment with a total sample size of 2968 youth, primarily male. Sexual recidivism of the total sample was 12.53%, compared to 20.40% for other/unspecified, non-sexual recidivism, and 28.51% for non-violent, non-sexual recidivism. This highlights the importance of examining non-sexual recidivism in the JSO group. A meta-analysis regarding the effectiveness of JSO programs showed an average weighted effect size regarding reducing sexual recidivism using an odds ratio of 0.43 which was statistically significant. Comparing those who received treatment versus those receiving no treatment, the rates were 7.37% versus 18.93% using an unweighted average. This supports the hypothesis that these programs were effective and more so than treatment with adult populations. Every study included had a positive effect size superior to control groups regarding reducing recidivism. They note that there did not appear to be differences regarding program effectiveness among program types, but rather other factors influenced effectiveness such as participant characteristics. While it was expected from previous studies that cognitive-behavioral programs would be more effective, they did not find this to be the case. They didn't use program integrity

or fidelity as a factor in the outcome analysis since this was not available in all studies. Studies using Multisystemic Therapy had the highest treatment effectiveness, but this may have been influenced by the high base rate recidivism where a treatment effect might more easily be exhibited.

Borduin, Schaffer, and Heiblum (2009) examined treatment outcomes for 48 high risk JSO youth in a randomized study using Multisystemic Therapy (MST) compared with standard treatment. As noted above MST is a family based social ecological model that is a highly supervised program that tracks program fidelity rigorously. They had an 8.9 year follow up. They found that the treatment group had an 8% sexual recidivism rate versus the standard treatment group which had a 46% rate, and the nonsexual recidivism rates were 29% versus 58% respectively. Standard treatment consisted of cognitive-behavioral individual and group treatment, which was not manual driven and didn't have rigorous fidelity monitoring. The MST intervention used their model derived from experience and research regarding general probation populations, and adapted it to the needs of this sexual offending group. It was assumed that their model which had substantial research on effectiveness with probation youth generally, would also be effective with the JSO subgroup. Their goal was to reduce parent and youth denial about the sexual offenses, remove barriers to effective parenting, increase parenting knowledge, and promote family attachment and communication. Improving school performance was targeted. MST is careful to have the family and youth establish their own goals, and empowers the family to develop skills to achieve them.

They also note, "At the peer level, interventions often target youth social skill and problem-solving deficits to promote the development of friendships and age-appropriate sexual experiences. Peer relation interventions are conducted by the youth's parents, with the guidance of the therapist, and often consist of active support and encouragement of relationship skills and associations with nonproblem peers, as well as substantive discouragement of associations with deviant peers (e.g., applying significant sanctions)" (p. 28). There was no reported use of manualized approaches or evidence based strategies for promoting these social skill and problem-solving interventions, however.

Worling, Littlejohn, and Bookalam (2010) report on a 20-year followup from the SAFE-T program in Toronto with 58 treatment cases and 90 controls. Assignment was not randomized, but there were no differences between control and treatment groups on relevant variables measured. The control group consisted of a group selected for comparison, and also groups referred only for assessment, and a treatment drop out group. Treatment at the SAFE-T Program was individualized to meet each adolescent's needs, but would routinely include as a goal youth taking responsibility for the offense, developing relapse prevention plans, increasing awareness of victim impact, reducing the impact of past trauma, and increasing positive family functioning. It also included "enhancing social relationships", and "enhancing prosocial sexual attitudes and knowledge." The treatment group had a 20-year recidivism rate of 9% compared to 21% for the comparison group for sexual offenses, and 35% versus 54% recidivism for any offense. All comparisons were statistically significant.

In summary: Reitzel and Carbonnel's (2006) findings indicate treatment is effective in reducing sexual recidivism, but didn't identify particular methods as more effective. The Bordin, Schaffer, and Heiblum (2009), and the Worling, Litlejohn, and Bookalam (2010) studies found their treatment approaches effective in reducing sexual and nonsexual recidivism, and noted a prominent role for social skills and social reasoning for youth training in their treatment models. While prosocial interventions were part of these programs, they did not provide a standardized

intervention model or theory related to developing these specific interpersonal skills.

Emerging JSO Treatment Models

Other models are in development for treating JSO populations. For example, Whitney Academy, Inc., uses a model described by Dr. Kevin Creeden (personal communication, April 4, 2010). Their population includes youth with sexual offending behaviors. A complementary perspective is described in his chapter "Trauma and Neurobiology: Considerations for the treatment of sexual behavior problems in children and adolescents" (Creeden, 2005). This model targets various areas for intervention, using a variety of approaches. These goals, adapted, are described in Table 4. This model is still in development, and outcome research is not yet available.

Kecia Rongen (2009) with the Washington State Juvenile Rehabilitation Administration, and colleagues, developed a new approach to treating JSO youth on parole. This was done in part because of the limitations of the existing dominant model, relapse prevention, which were developed primarily from adult treatment models. The new model makes many changes including not using the term sexual offender in describing their clients, not using the sexual offense cycle as part of treatment, not using offense disclosure in group settings, using strength based in contrast to coercive and confrontational approaches. Instead they use individualized behavioral chain analysis and behavior therapy approaches. They also use a Healthy Living Plan, a strength based relapse prevention plan to help youth move towards personal goals while avoiding abusive behaviors and high risk situations. They use ART and Functional Family Therapy for selected youth and families. They also use dialectical cognitive behavioral techniques with their model (Schmit & Salsbury, 2009). Research on the effectiveness of this model with JSO populations is pending. The Swedish Adolescent Detention Board developed a model for JSO youth in that country. Dr. Bengt Daleflod (personal communication, April 4, 2010), describes their approach for treating adolescents with sexual offending behaviors as using CBT methods, risk assessment, ART, and other approaches. Research regarding this model is pending Another model is described by Yokley in his article, "Social Responsibility Therapy for Harmful, Abusive Behavior" (2010). He describes a general model of treatment which targets not only sexually abusive, but other harmful behaviors for adolescents. He reports that initial outcome data is encouraging.

Prosocial Models of JSO Treatment

The existing outcome literature supports that an important component of effective programs with both the general probation and specifically JSO youth, is promoting prosocial behaviors, that is improved social skills and problem solving. The JSO youth is on probation for violating social "rules" which society we formalizes as laws, regarding harmful sexual behaviors. There was an error in behavior on the youth's part, and also deficits in judgment, reasoning, and social skills that contributed to this violation. While other factors such as parenting styles, or prior trauma likely play a role, any intervention to reduce future rule/law violation, reducing general and sexual recidivism, and preventing further harm to others, should address improving these deficits in a systematic way. Models which don't have some research based theory of adolescent development can not adequately conceptualize and formulate interventions for effective change.

The term "prosocial" isn't recognized in existing literature as a distinct treatment approach, though the term has been widely used descriptively. In "The Safer Society 2009 North American Survey" noted above, this term is not used. The Good Lives model (Ward 2002) is the most similar term used there. This model focuses on helping individuals achieve primary human goods in socially acceptable ways. The term "prosocial" also isn't in current conventional dictionaries. It is, however, an entry created by this author in Wiktionary ("Prosocial," 2006). It is defined there as, "1. Beneficial to all parties and consistent with community laws and mores. 2. Contributing to a beneficial outcome by negotiation, problem solving, problem analysis, clarification, or respectful behaviors." Its antonym is antisocial. The term describes treatments that enhance social problem solving and social skills in ways that promote mutually beneficial relationships. The goal is to develop social skills that are more effective in getting needs met reliably and in an enduring way.

Prosocial strategies are those that promote win/win outcomes. A famous example was a world wide game theory contest won by Anatol Rapoport twice using an the same application of the Golden Rule (Millburn, 2010). The strategy entailed starting every game by cooperating, and then doing exactly what the other player did last. A prosocial strategy has been codified in Christianity as the Golden Rule, and has nearly identical representations in many of the world's major religions and philosophies. These are described in Table 5.

Prosocial behaviors have advantages such as creating win/win interactions which lead to people giving one more opportunities for future win/win interactions. Win/win interactions leads to better family and work relations. Most people don't choose, unless coerced, to interact with people where there was a win/lose outcome not in their favor. Also with prosocial behaviors individuals don't get arrested, and don't get people mad at them chronically. Also these behaviors make the individual feel like a competent prosocial individual valued in the culture.

Prosocial models of treatment such as ART and other related models have significant advantages for treating JSO populations. They are based on empirical research regarding how adolescents' thinking and behavior develops, what particular criminogenic psychological factors characterize probation youth generally including JSO youth, and how treatment models remediate criminogenic factors.

The model developed described above as the Sexual Offense Cycle Model, emphasized certain behaviors in JSO youth such as lying, lack of victim empathy, denial of responsibility, lack of insight, manipulation, and conduct-disordered thinking patterns of behavior as criminogenic factors in sexual offending. This model was developed in the absence of significant research in this area. The treatment interventions with this model were at times guilt based, consisted of confrontation and pointing out denial, minimization of harm/responsibility, and thinking errors. Motivation for treatment was often extrinsic in terms of probation sanctions.

In contrast the prosocial model identifies the same behaviors, but attributes them to deficits in social perception, moral reasoning, emotional regulation, and social skills. Effective interventions are designed to improve functioning in these areas. Rather than having an extrinsic or coercive basis, prosocial models help youth identify their own intrinsic reasons to make changes in a prosocial direction to lead "good lives."

Prosocial models change the "narrative" that significantly influences not only others' perception of the youth, but also the youth's self-definition. The prosocial model invokes a different narrative for JSO youth. The Sexual Offense Cycle model tends to perpetuate the negative self-esteem that got many of these youth into trouble in the first place. This narrative becomes the dominant one in interactions with others, the youth's own self definition, and in developing future life plans. In contrast the prosocial model helps the youth realistically, but positively define the prosocial person they can become and positive relationships they can have, based on new interpersonal skills.

In the remainder of this chapter, one prosocial treatment method, Aggression Replacement Training, will be described. It has been show to be effective in promoting prosocial behaviors, social skills, moral reasoning, and emotional regulation. A research showing an effective and practical implementation of this model using a randomized design with JSO youth will be described.

Aggression Replacement Training (ART): A Prosocial Treatment Model

The ART model is described in Aggression Replacement Training by Goldstein, Glick, and Gibbs (1998). There are closely related and differently elaborated models by Goldstein and associates such as The Prepare Curriculum: Teaching Prosocial Competencies (Goldstein, 1999) and Skillstreaming the Elementary School Child: New Strategies and Perspectives for Teaching Prosocial Skills (McGinnis & Goldstein, 2000). Also Thinking for a Change developed by Bush, Glick, and Taymans (1997) is a similar model. The use of the term "Aggression Replacement Training" doesn't emphasize that the model is appropriate for probation youth where aggression is not the primary problem. The publications above which use the term prosocial emphasize this point.

ART was developed as an eclectic model using existing theory and research. Among these are Luria's (1961) developmental neuropsychological model that relates language and social development. Another important element was the research by Kohlberg (1984) on moral development and the changes that occurs rapidly in the teen years. Goldstein and his colleagues (Goldstein et al., 1998), asserted that antisocial and aggressive behavior was a learned phenomena that could be reduced by using the same causal factors by which it was learned. They posited that the social learning factors that contributed to antisocial behaviors could be "turned on their head" and used to reduce them. This was based on part on the social learning theory of Bandura (1973) which found that behavioral change could be accomplished by modeling, behavioral rehearsal, and social reinforcements. Another important element was Meichenbaum's (1977) model of anger management training, and specifically Dr. Eva Feindler's adaption of it incorporated into the ART model.

ART uses verbal rehearsals of behaviors, authoritative figures role modeling desired behaviors, relying on the youth's identification with authoritative role models, practicing adaptive behaviors in treatment settings, practicing behaviors in real life settings, and receiving corrective feedback regarding new behaviors. It also uses peer group pressure to create a "prosocial gang" in group treatment which models and pressures youth towards prosocial behaviors.

There are several important areas of research that support the ART model, but were developed after the initial ART model was published. Research regarding the Roberts 2, a psychological assessment technique, is important for understanding development in social perception and problem solving in adolescents relevant to ART and related prosocial models (Roberts & Gruber, 2005). The Roberts 2 is a revision of the Roberts Apperception Test for Children. The Roberts 2 has a set of 16 pictures for which children and teens are asked to make up a story. Pictures portray important life situations and conflicts regarding anger, jealousy, fighting, sexuality, and other areas. This is modeled on the classic projective test, the Thematic Apperception Test (Sanford, 1939). The Roberts 2, has a validation sample of over a 1,000, and has excellent psychometric properties. This author finds the test useful with probation youth generally and JSO youth particularly in understanding deficits in social problem analysis and resolution, and that relative to the average adolescent in the normative sample, probation youth generally are about four years delayed. For example, the average 16-year-old probation youth

would have the social analysis and problems solving skills of a 12-year-old non-probationer. This is likely a significant psychological risk factor for probation youth. Society usually has expectations, controls, supervision, and structured activities for 12-year-olds that protect them from misadventure because of their immaturity. Society doesn't let them drive cars, for example. There are far fewer controls realistic for a 16-year-old, particularly if there is a strong influence from delinquent peers and settings where anti-social behaviors in the community are frequent. Further, it is the author's observation that JSO youth, as a group, are even more delayed in social problem analysis and resolution skills than probation youth generally.

That probation youth generally, and JSO youth particularly, would be delayed in social reasoning and development is not a novel or surprising concept. These youth are on probation primarily because of violating a social norm and also laws regarding not harming people. The Roberts 2 has five levels of problem identification, and also five levels of problem resolution. Problem identification scales are Problem Identification 1 through Problem Identification 5. Problem resolution scores are Resolution 1 through Resolution 5. A level 1 response for each type of scale would be the least sophisticated, and a level 5 response the most sophisticated. Level 5 responses are rare. Probation youth in the author's experience, more frequently use Level 1 responses compared to nonprobation youth. Likewise non-probation youth more frequently use Level 4 responses than probation youth.

In the Roberts 2 research, development is associated with increased sophistication and differentiation of problem analysis and responses to problems. For example, in Problem Identification 1, or Resolution 1, more typical of children and younger adolescents, there is only simple identification of feelings or behavior. There are simple and elliptic solutions to problems without working them out, or dealing with conflict, struggle, process, alternative choices, or complexity. In Problem Identification 4, and Resolution 4, which is more prevalent in older adolescents, there is a description of the reasons for behavior and feelings, antecedents, and solving emotional, social and practical issues in a life problem in more adult ways. These models importantly include some ideas of the causal chain of how a problem emerges, what feelings or relationship issues are involved, emotional and social processing, "if-then" and "what if" thinking, and what "trade-offs" are involved. It also describes that not only the problem needs to be resolved, but also the accompanying feelings and relationship issues. More "mature" behavior of older adolescents or adults is based on these more sophisticated schemas and accompanying skill sets that make for more effective and prosocial interpersonal transactions with "win-win" outcomes. What is described here is an elaboration to the theory of ART, not part of the original model.

A complementary area of research is in neuropsychology, by Dr. Abigail Baird and associates (Bowser, 2004). She investigated interpersonal problem-solving, moral, and brain development in adolescence, with particular reference to forensic issues. In one study, she had adults and adolescents think about certain situations, such as riding a bicycle downstairs. Adults usually had an automatic, quick response that utilized visual processing areas of the brain. In contrast, adolescents used prefrontal areas of the brain connected with planning and judgment. She finding relates this to brain research, indicating that prefrontal areas of the brain are not fully mature until age 25. In one article she and a colleague describe the development of a related concept, counterfactual reasoning in adolescence (Baird & Fugelsang, 2004). Counterfactual reasoning involves the ability to think about a situation by examining "what if" and "then what" possibilities, that is construct alternative scenarios based on hypothetical reasoning about life situations. This is similar to what Piaget describes as the emergence of abstract thinking in

adolescence. Baird and Fugelsang (2004) note: "What does the development of counterfactual reasoning mean for the justice system? One direct implication of this model is that young adolescents may lack the neural hardware to generate behavioural alternatives in situations demanding a response. For example, adolescents are more likely than most adults to engage in risk-taking behaviour. While there are a myriad of theories about why this is the case (see Spear (2002) for an extensive review), one reason for increased risk taking in adolescents might be their inability to generate alternatives and potential outcomes prior to the initiation of behaviour. More specifically, a great number of adults think about driving their cars at excessive speeds, and while some adults do engage in this behaviour, adults are more likely to also envision a number of counterfactual scenarios that vary in their desirability. This is an important component of appreciating potential consequences of actions" (p. 1801).

A major area of development during adolescence is developing counterfactual thinking, with "what if" and "what then" types of cognitive skills. This provides youth with the ability to consider a range of prosocial behavioral alternatives. Most parents find themselves "coaching" their teen regarding thinking about one more aspect of a situation that the adolescent didn't consider. For example, "If you ask your friend Carlos, but not John to go to the movies, how will John feel"? Or, If you don't study now you really will be too tired to get up early and do it". ART and similar models seek to facilitate this normal growth by exercises that improve emotional regulation, and target relevant skills and thinking. These exercises are targeted specifically in areas described by the Roberts 2 and the research of Baird and associates. Below qualitative research is reported from JSO graduates of an ART program that validates this view.

Current research as summarized above, indicates that there is an expected progression in the development of thinking regarding social relations, planning, and ethics during adolescence. This can be summarized as the development of prosocial thinking. As described above, for most individuals, prosocial thinking and behavior has definite advantages for effective functioning. Normatively most adolescents develop more prosocial thinking as they get older, and ART and similar approaches facilitate this in probation youth.

The ART Intervention Model

ART has three components which build on each other synchronistically. The three parts each address different aspects of social skills and reasoning relevant to probation youth. Each component chosen for ART was based on research regarding what factors were likely contributory to delinquent behaviors, and what interventions would be most effective in increasing functioning. As noted above, ART isn't the only prosocial model with good research regarding effectiveness. The components of ART are: 1. Skillstreaming, the Behavioral Component, 2. Anger Control, the Emotional Component, and 3. Moral Reasoning, the Values Component. Each component of ART has ten sessions. Each module while it is complete and teaches skills in an area, is also complementary to other parts of ART.

A variety of group management issues are essential for the success of the groups. ART is not a good fit for every JSO youth. Exclusionary criteria might include those with severely aggressive behaviors, intractable gang affiliation, severe ADHD symptoms, and also psychotic and suicidal youth. In practice, most probation youth are not excluded from ART using these criteria. Leaders need to maintain and model prosocial norms for the group. Likewise protracted conflicts, defiance, and arguing are to be avoided. Techniques from motivational interviewing (Miller & Rollnick, 2002) such as "rolling with the resistance" are helpful. Like motivational interviewing, ART works to get a "buy in" from youth and have them identify how they might be motivated to use parts of ART and how these parts will be useful to them. Reinforcement is only for good performance. When antisocial norms and behaviors are expressed, intervention by group leaders should be immediate, but not coercive or judgmental.

ART is conducted in groups with about eight youth, and two leaders, and has 30 sessions, that can be done weekly, or several times per week. ART, like athletic training, sends kids to the "Prosocial Gym" to develop new skills and get "prosocially buffed." ART develops the plastic adolescent brain as much as does learning music, a new language, or practicing gymnastics. ART is a structured program, and a different model than traditional therapies. It uses a fixed curriculum and does role playing, requires participating, and is not opened ended counseling. Program fidelity and outcome assessment is an essential part of ART. It requires doing: 1. all the elements of the "lesson" plan every time, 2. doing all parts of the curriculum, 3. verifying you have done all this, and 4. tracking outcomes at the end of treatment.

This chapter will briefly: 1. review why each component is important, 2. relevant theory and research, and 3. How to implement each component.

ART: 1. Skillstreaming, the Behavioral Component

Research identifies that delinquent youth have lower levels of social skills than non-delinquent age mates. For example, Conger, Miller & Walsmith (1965) report that juvenile delinquents, as compared to non-delinquent cohorts, "...had more difficulty in getting along with peers, both in individual one to-one contacts and in group situations, and were less willing or able to treat others courteously and tactfully, and less able to be fair in dealing with them. In return, they were less well liked and accepted by their peers" (p. 421). Also Spence (1981) in a videotape analysis of adolescent offender and non-offender samples showed the offender group had significantly less: (1) eye contact, (2) appropriate head movements, and speech, (3) and significantly more small and gross body movement. This research regarding general probation populations, is consistent with the author's experience working with JSO youth. These youths are often markedly delayed in social interaction skills with adults and peers. These youth have difficulty in a variety of social interactions and negotiations whether it is with peers, teachers, or parents. These challenges in social skills are contributory to difficulty these youths experience getting age appropriate needs met, increasing frustration, in turn contributing to sexual acting out. More adaptive, prosocial ways of getting needs met for closeness, intimacy, and affection are not available to these youth and this contributes to dysfunctional harmful behaviors.

These social skill deficits also are consistent with the developmental changes identified in the Roberts 2 research cited above. The deficits identified in Problem Identification and Resolution areas can be helped by Skillstreaming interventions. The skills in this module help the youth identify what is going on a situation, what they can do, and understanding consequences for different choices. It also gives them a repertoire of options they have practiced that they can choose from to implement. In contrast to the stereotype of delinquent youth being viewed as "streetsmart", probation youth generally, in the author's experience, have a limited, inflexible set of often counterproductive strategies to deal with daily problems and needs.

The Skillstreaming module includes several components including modeling and skill demonstration by trainers, role-playing by youth and skill rehearsal, performance feedback by trainers and other youth, and giving homework based on the training. Each of the 10 sessions uses a particular skill. The ART book has 50 skills to practice. There's a wide range of levels of sophistication in areas represented in the skills. They range from very basic skills such as "listening", to more sophisticated ones such as "dealing with an accusation", "negotiating", or "preparing for a difficult conversation". There are elementary social skills, dealing with stress,

alternatives to aggression, and planning skills represented. The choices skills to be practiced depends on what the leader feels are appropriate and match the needs, sophistication and developmental level of group participants, and current problems.

ART: 2. Anger Control, the Emotional Component

Regulation of emotional states is an important psychological skill for all individuals, especially for JSO youth. The emotional states that are most relevant to harm to others are sex and aggression. One leader in the JSO field, M. Fredericks of Teen Triumph in Stockton, (personal communication, 2010) believes that the central problem for JSO youth is the relation of sex and aggression. The interpersonal frustration these youth experience for age-appropriate closeness, intimacy, and satisfying relationships leads to frustration which in turn gets acted out sexually. Fredericks sees the anger control component as an essential aspect of sexual offending treatment. Dollard, Miller, Mowrer, and Sears' (1939) classic studies describe the relationship of frustration leading to aggression.

Dr. Paul Ekman (2007) studied emotional regulation. Anger is part of a universal human response, and part of our biology. Control of aggression is especially important for the adolescent male where size and strength rapidly change. For example strength triples between ages eight and sixteen (Staheli, 2006). When anger is out of control, flexibility decreases, counter-reactions by others creates vicious "lose/lose" scenarios rather than prosocial "win/win" ones. Responses based on strong feelings, like anger, once engaged, take over brain function to the detriment of higher level functioning such as planning and judgment. This is undoubtedly part of our biological "hard wiring" designed for survival in crisis situations. Anger once started for probation teens usually doesn't have a productive outcome. While these "hard wired" responses tend to take over behavior, the individual can learn to slow them down. Anger is best dealt with by delay, relaxation, prevention, distraction, time out, and these responses can be taught.

ART is based on findings that chronically aggressive youth are more likely to create anger arousing perceptions, use less self talk, and have less flexibility in responding. Consistent with a social learning theory approach, aggression is viewed as a learned behavior, that can be modified also through social learning and reconditioning. The goal of ART is to reduce the direct expression of antisocial anger in a variety of ways. From a neuropsychological point of view, limbic and emotional responses are activated much faster than higher level functions connected with planning and judgment. The goal of ART is to slow down the emotional reactivity so that planning, judgment, and frontal lobe functions can catch up and get in control of anger. Also if social skills can be increased, the chronic frustration and lack of social effectiveness that lead to higher levels of frustration and aggression can be reduced. If youth are more effective interpersonally, their baseline emotional state can be less angry, and they can view future encounters with less pessimism, and greater optimism and anticipation of success.

The ART Anger Control Training module has 10 sessions. Each session introduces a technique that assists with anger control. The Anger Control module is the emotional component of ART and teaches emotional control. It provides participants with an understanding of the psychology of anger, what factors contribute to it, what can slow it down, and make it more manageable. Participants bring in real life examples regarding aggression, and use techniques from this module to deal with them. Role-playing real-life situations is done using the techniques from the Skillstreaming module with these real-life scenarios. It's a graduated approach, and more complexity is added by steps in each session. The other modules of ART, Skillstreaming and Moral Reasoning Training, increase the effectiveness of youth getting their needs met,

which overall decreases the youth's frustration and anger.

ART: 3. Moral Reasoning Training

The third component of ART is Moral Reasoning Training, which provides training in moral reasoning. The goal of this component is increasing participants level of moral reasoning. The rationale for this component is based on research showing delays in moral reasoning with youth on probation. Moral reasoning has to do with issues such as the balance between gratifying ones own needs versus the rights of others, and what conventional standards of correct behavior dictate.

The ART model reviews research that indicates that probation youth showed immaturity in stages of moral reasoning relative to peers, and that they have a persistent egocentric basis. Gibbs and Potter (1992) found thinking errors in chronically aggressive youth including egocentrism (e.g., me first, its all about me), attribution of hostile intent to others, minimizing, and not taking responsibility/blaming others. ART adapted Kohlberg's view of moral development which is similar to a large body of research examining cognitive development regarding interpersonal reasoning including Hy and Loevinger's (1996) levels of ego development. Kohlberg's theory of moral development is based on Piaget's research on moral development in children and adolescents (Piaget, 1932). Piaget's research shows children develop moral "theories" regarding rules governing interpersonal behaviors. Kohlberg describes three general levels each of which have two substages.

The goal of the Moral Reasoning component is to increase the moral reasoning skills of the youth. This is done through having youth discuss problematic moral dilemmas, and to deal with alternatives that challenge the youth's level of moral reasoning. As with other components of the ART model, several other factors are seen as important in promoting prosocial moral development in youth. These include use of group pressure towards a prosocial consensus, and having leaders encourage prosocial resolutions of the dilemmas. Each group follows the same format. Group rules are reviewed every session. The moral dilemmas are introduced, members take turns responding to the moral dilemma, and responses are recorded. Variations in the dilemma are introduced to look at different aspects and moral implications. The idea is that by looking at complexities, contingencies, counterfactual possibilities, that the youth's cognitive schema can grow and develop, as described by the Roberts 2 model of development cited above.

Each session follows the same structure and is described by Gibbs (2005). The book by Goldstein, et al. (1998) provides 10 moral dilemmas, and valuable additions to this curriculum have been developed through contributions of youth themselves in detention in DuPage County, II. (Juvenile Detention Center, n.d.). Several of these have specifically sexual content which are useful with JSO youth.

This component of ART is useful not only with general probation youth, but the JSO sub-group. The impulsive and self-gratifying behaviors that got youth into trouble, are based on less sophisticated moral reasoning patterns. The author as a therapist working with JSO youth has observed positive changes of youth in this area, and the development of more mature moral reasoning as treatment progresses. Also there is an appreciation by youth of how far they have come. The moral transformation that takes place in over the 18 or more months of treatment is striking, and consistent with the trajectory of the model of moral development described by ART. This view is reported in the observations of personal growth described by JSO ART participants in the study reported below.

An ART JSO Implementation: The Teen Triumph Program

As part of providing evidence based treatment for JSO youth, Teen Triumph in Stockton,

California, undertook implementation of an ART type intervention. The goal of this intervention was to see if positive outcomes could be achieved with an affordable investment in staff training and time. Staff initially received a one day training in ART type approaches, and complementary methods such as motivational interviewing. Also the standard ART curriculum was modified by using research not cited in the original ART book, and examples of sexual offending behaviors. The implementation of the ART model was consistent with the spirit and content of the original publication. It did not include fidelity measures, but ongoing supervision and monitoring of fidelity was done by consultation with the group leaders who had many years of experience working with JSO youth.

Teen Triumph administrators believed that an ART type intervention would be important for treating their population because it would address a major factor not accomplished by usual JSO treatment methods. Their view was that addressing social skills and reasoning deficits was essential for good treatment outcomes. Social skill and reasoning deficits led to chronic frustrations in relationships and not getting basic needs met, which in turn contributed to sexual offending behaviors.

Participants

The study selected 17 male youth out of the residential population. These youth as a group had several characteristics including having enough time left in the program to complete the intervention, and being able to benefit from the group format. All youth in that treatment setting had sustained JSO charges. The 17 youth represented almost 50% of the youth in treatment in the facility. Youth resided in three separate group homes managed by the program. The characteristics of the sample participants were as follows:

Average Age: 15.7

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Special education:59%Months in treatment:11.3JSORRAT-II score:5/ (range 2-11)

Experimental n=9, Control n=8.

The JSORRAT-II (Epperson, Ralston, Fowers, Dewitt, & Gore, 2005) average score of 5 would fall at the moderate risk level, and the probability of recidivism for that score until age 18 would be 26%. The JSORRAT-II range of 2 to 11 represents a large difference in scores. The high rate of special education students is notable and also indicates likely the strong advocacy the youth had regarding educational needs.

Measures

The outcome measure used was the Youth Outcomes Questionnaire (Y-OQ) (Burlingame, Wells, Cox & Lambert, 2004). The scales of the measure are: Intrapersonal Distress, Somatic, Interpersonal Relations, Critical Items, Social Problems, and Behavioral Dysfunction. Scales were completed by staff at the residential housing who were blind to the treatment conditions.

Intervention Design

A randomized design with multiple assessments was done which is described below:

Time Line*	-63	-42	-7	0	42	84	98	147
Control	01	O2	03	R XB	O4	XE	05	06
Treatment	01	O2	03	R XB	O4	XE	05	06

*- Days before/after intervention started.

In this notation O1, O2, etc., refer to the six observations or measurements taken. R

refers to the randomization of the samples, and XB refers to the beginning of the intervention, and XE to the end. As can be seen, the Time Line "0" is when the intervention began, and + and - figures on the time line, refer to days before or after the intervention started.

After the randomization, both the treatment and control groups attended group sessions. The control group was given separately a psycho-educational curriculum on teen adjustment at the same time ART was offered, but it wasn't an evidence based model. The treatment group was given the ART curriculum. Youth didn't know which group was the treatment or control. The treatment group intervention had three groups a week, giving the Skillstreaming, Anger Control, and Moral Reasoning modules simultaneously. Ten sessions of each modality were given consistent with the instructions in Goldstein et al. (1998). Each ART module had the same group leaders throughout.

The groups were built into one period of the school curriculum, and this included two one week school vacation periods. The total intervention ran for 84 days. The Y-OQ scale was administered three times prior to the beginning of the intervention, once during the intervention itself, and twice after the intervention. The Y-OQ was routinely given to monitor progress of youth. The measures were on a schedule independent of the intervention, but could be used to measure the intervention effects. Using Tennyson's criteria the implementation of the program had high integrity. Goldstein's book (Goldstein et al., 1998) was used as the basis of treatment, with some modifications noted above. Training regarding the model was done by the author with follow up consultation. Program fidelity was monitored by consultation with the group leaders, but a formalized checklist for compliance was not used. Although rated high, the program integrity monitoring was less extensive than a program offered by the State. This State model required considerable time filling out fidelity forms and outcome measures. The treatment

integrity methods used in this study were designed as being "provider friendly", but adequate for high integrity implementation of the program.

Statistical Modeling

Given the nested structure of the data (repeated measurements nested within participants), the primary data analysis used a multilevel modeling strategy (Raudenbush & Bryk, 2002; Singer & Willett, 2003). All multilevel analyses were conducted using HLM 6 (Raudenbush, Bryk, Cheong, & Congdon, 2004). The analyses used a piecewise multilevel regression strategy (Raudenbush & Bryk, 2002), although the exact approach varied slightly depending on the dependent variable. Y-OQ data had one measurement occasion during the intervention and the remainder before or after. Consequently, the analysis of Y-OQ data modeled only two growth rates, one prior to the intervention and one post-intervention. The null hypothesis was that there would be no difference in growth rates (slopes) after the intervention, compared to before the intervention. If the intervention had no effect, then there would be no difference in the slopes. The analysis used conservative criteria, a two tailed test, with the p<.05. To control for possible baseline differences, age, special education status, and JSORRAT-II scores were included as covariate predictors of baseline measures. Condition was included as a predictor of the intercept and slopes over time. All student level effects (i.e., age, special-education status, JSORRAT-II, and condition) were grand-mean centered and allowed to randomly vary.

Results

The Y-OQ data was analyzed separately by subscale. Two scales, showed a significant decline post intervention relative to the preintervention slope. These scales were Critical Items (β = -3.33, t (15) = -2.62, p = .01), and Somatic (β = -2.36, t (15) = -2.30, p = .04). The Critical

Items scale assesses severe psychiatric symptoms, e.g., paranoid, OCD, psychotic, suicide, and eating disorders. The Somatic scale assesses symptoms such as headaches, dizziness, stomachaches, bowel distress, and pain. The approximate effect size was calculated for each scale and is -1.35 and -1.22 respectively which would be classified as a very large effect size (Becker, 2000). A third scale, Interpersonal Distress, measuring depression and anxiety symptoms, showed marginal significance ($\beta = -4.75$, t (15) = -1.51, p = .15). A negative β coefficient means a lower score and less psychological distress. This contrasts with an medium effect size noted in Tennyson's (2009) analysis for juvenile probation interventions with high treatment integrity, although these studies used recidivism as the outcome measure.

These results suggest that the ART type intervention may have improved social functioning, increased social competence, and increased optimism about the future. Likewise it may have decreased frustration and distress associated with social skills deficits. If a one sided test was used, instead of the two tailed test, and p<.10 was used, then the Interpersonal Distress scale, which would have a one-tailed p=.076, would have qualified for significance. This strategy might have been used given the small sample size and the exploratory nature of the study. The Interpersonal Distress scale measures anxiety and depression symptoms, which are included in one scale since empirically in the Y-OQ research, depression and anxiety items did not separate into two scales. These overall results are consistent with the intervention showing a positive treatment effect.

Qualitative analysis

Important information about outcomes is often obtained not only through quantitative, but also qualitative analysis. In political polling or marketing research, quantitative research is also supplemented by qualitative research using focus groups. This approach is useful by allowing information to emerge which was not included in structured research approaches. The use of these qualitative "clinical methods" was described by the author elsewhere (Ralph, 1980). These methods are becoming more frequently used in clinical psychology (Elliott, Fischer & Rennie, 1999). A qualitative approach is useful as a supplement to quantitative methods. The usual limitations and critiques of qualitative methods when also used with quantitative methods are minimized to a degree since "how much" and other quantitative concerns are addressed in some measure. In this type of study there may be an implicit response bias in that youth may feel an implicit pressure to provide more positive responses regarding the intervention. Every attempt, however, was made to have youth provide candid responses, either positive or negative, and not to set up an implicit response bias.

Views of staff who implemented the program, and also youth who participated in it were obtained. Two issues were assessed: 1. "Consumer satisfaction" from both staff and participants regarding the intervention and what helped with it, and 2. View of whether this intervention was helpful in promoting prosocial development, and if so, how?

Staff Interviews Regarding Implementation and Results

The staff leaders reported that generally they did not face major problems regarding implementation. Occasionally there were problems with getting youth focused on the task. It helped to have the group at the end of the school day as one of the class periods, so that there was a clear start and stop time, and not having to deal with issues like youth coming in late, etc. Some youth also had difficulty at the beginning of sessions dealing with frustrations from the day, and getting on task. This could usually be handled by letting the youth vent to an extent, giving some brief sympathy, and using the group pressure and didactive nature of the task keep focus. Consistent with the ART model, positive and cooperative behavior was reinforced, and non-cooperation or antisocial attitudes were dealt with initially by not reinforcing, ignoring, and redirecting youth to stay positive and on-task. Using an overhead projector, rather than posters, was useful since these were not subject to disappearance or damage.

Since somewhat less than half of the program participants had been through the intervention, the group leaders did not yet see program-wide impact of the intervention which had been the case in some settings. However, in the Teen Triumph program they did see an effect in one-to-one counseling with youth. ART and its curriculum provided a useful framework and vocabulary in dealing with issues in individual counseling. For example, they could help youth to slow down their reaction, refer to role playing exercises, or moral reasoning regarding choices in handling situations. They found youth who were part of the ART intervention, were more flexible in deciding on responses, and would think through actions. Youth talked about how they were implementing lessons learned from the intervention in real life. The youth seemed to understand the ART concepts. ART met expectations for positively impacting youth, and not posing implementation problems.

Youth Interviews Regarding Implementation and Results

Four of the youth who had the intervention were interviewed, out of the original nine. The other youth had graduated by the time of the follow-up interview. Regarding implementation of the group, they reported generally that it was useful, and well done, but occasionally boring. Some youth reported that sometimes filling out the Hassle Log was "a pain" but was useful. One youth reported that some days were boring, but most of it was fun, particularly the role playing or "acting" part. Nothing seemed too complex or stressful for them. The curriculum "made sense" and was easy to learn. They were able to practice the lessons from ART in real life settings. I asked the youths about the impact of the intervention. The youths shared similar types of responses. One reported that the intervention helped him see when there were problems, and it was not necessarily others' fault. He could pay more attention to what was happening in his body, and his emotional reactions. He could also think through situations, had a greater range of responses available, and did not have to respond impulsively and aggressively. He could limit set with other youth, rather than automatically provoking a confrontation.

Another youth commented that he was able to see that it was not always other people who were "setting him off", but his reactions, and his difficulties seeing both sides of the situation. He began to understand that he had some choice around how he expressed emotions, and there was a time to shut-off emotional reactions and times not to. It provided him with greater flexibility in dealing with situations. He felt he was able to learn new tools regarding these situations.

Youth were asked regarding specific situations where they used these tools, and they could describe recent examples. One youth talked about feeling that a probation officer took away his home passes unfairly, and previously he would have "blown up." He was able to be reserved and more thoughtful in dealing with what he felt was an unjust punishment, rather than respond emotionally. Another youth responded that he was able to see in his residence how other youth were trying to "push his buttons" and that he learned not to react to them, which resulted in them getting even madder. Another youth responded similarly that instead of getting mad now, he "kills with kindness" and talks to people better which makes things easier for him. Another youth responded that the ART interventions worked, helped him, and were "good for you". Not being in trouble all the time made life easier.

One youth responded that he learned how to make decisions before acting, think about

the problems, and decide what he wanted to have happen, rather than let his anger or emotions control him. He learned how to talk to people better, and how to share his feelings in ways that were helpful.

Teen Triumph Study: Summary and Discussion

This study had several limitations, including the small sample size, and limited time frame for follow up. The optimal benchmarks for understanding the impact of such interventions is reduction in long-term sexual and non-sexual recidivism, improved school, family, and eventually occupational functioning, and reduced psychiatric co-morbidity including substance abuse. These goals were beyond the scope of this modest study.

However, it should be noted this study had strengths. The use of a randomized design where participants and staff raters scoring the outcome measure were "blind" to the interventions, meant the observed differences were due to the treatment effects, and not some other factors such as pregroup differences.

The quantitative analysis showed that youth had significant differences on two scales, one measuring somatic distress, and the other with severe psychiatric symptoms. The effect sizes were rated as very large. This could be interpreted as youth having more effective interpersonal and social skills, and therefore experiencing less frustration and difficulties in their day-to-day lives. This was also reported by the youth, as well as staff in the qualitative interviews following the intervention. The positive rating regarding implementation by staff and youth, was also encouraging regarding the utility of this approach with this population.

It also should be noted that this is the first truly randomized outcome evaluation of the ART approach. A variety of implementations, including a quasi-randomized intervention in Washington State had consistently shown positive impact (Working Group on Youth Programs,

n.d.). ART has been classified as a Level 2 intervention, not the highest level, Level 1, because of the lack of randomized studies showing treatment effectiveness.

The study was an experiment to see if a modest effort could produce a worthwhile treatment effect with an evidence based intervention. Using a State sponsored training agency for a comparable intervention would have cost over ten times as much in training, supervision, fidelity monitoring, and outcome evaluation.

Future of Prosocial Interventions with JSO Youth

The field of JSO treatment is barely 30 years old, and still in development. What might be the future of prosocial interventions with JSO youth? While the ART model itself is a flexible and evidence-based, we can easily imagine how it or similar models could be adapted to fit the needs of JSO youth more specifically. For example, the ART module on emotional regulation deals with aggression, but this module could be adapted to dealing with sexual feelings and expression. Also therapeutic strategies to develop "a buy-in" from youth are not fully articulated in the ART model. Developments in the area of motivational interviewing, an evidence-based intervention, provides a theory regarding how to develop a "buy-in" from youth. These types of issues are dealt with informally in supervision in the ART training, not manualized, and not part of the formal curriculum.

The development of practical family based interventions would be a important addition to JSO treatment. The ART model in the original publication doesn't have a family component. However, a complementary family module has been developed subsequently along with research (Calme & Parker, 2004). In Calme and Parker's study a parent/sibling module was added to ART groups with adolescents as a complementary treatment. This "ART+parent" group was then compared to a regular ART group without a parent group, and to a "no ART" control, for a total of three groups. The total sample size was 65. The recidivism rates for ART with a family module, the ART adolescent group only, and "no ART", were 15%, 30%, and 43% respectively. Calme is developing a manual for the family model and additional research is pending. This research, especially given the effectiveness of the MST model with its ecologically and family based intervention, suggests the potential increase of effectiveness in prosocial models for JSO youth if family based interventions are used.

It should be noted that even the plastic adolescent brain requires a certain level of training and exposure to show treatment effects. Less intensive, less structured interventions are less likely to show a treatment effect. Research on ART cited above, for example, shows ART not competently delivered, had a negative treatment effect. The optimal or minimal intervention that will show treatment effectiveness is an area for future research. Also the level of program integrity monitoring needed is an important area of research. While the study reported here with Teen Triumph had a high level of program integrity, and the treatment was effective, the resources used for it were lower than the standard used by State-implemented programs.

In the author's experience, practitioners are interested in implementing evidence based prosocial models of JSO treatment. A major obstacle for implementation of ART and similar models such as MST are their cost and complexity in implementation. The Teen Triumph intervention was also an experiment to see whether a less resource intensive models could be effective. This intervention gives a model of an outcome system which used the existing clinical assessments already in place.

The ease of implementation of an intervention is a major issue from a public health perspective. If for example only 5% of programs can afford to implement a model, which reduces recidivism by 50%, for the total population at risk, there would be only a 2.5% reduction

in recidivism. If instead you had a intervention that 90% of programs could implement that could reduce recidivism by 30%, then for the total population at risk you would have a 27% in recidivism, over ten times the "effect" of the more expensive and more effective program. This is the dilemma faced now in using evidence based programs. The cost and difficulty in implementation particularly of "name brand" programs poses a major limitation of their widespread use. The challenge is the find cheaper, less resource intensive programs that can be used on a wider scale, but which are still effective. For example, while the MST model is widely recognized as highly effective, there has been no research regarding making the model less expensive and less difficult to implement, and hence usable by more programs and benefit larger numbers of at risk youth. Highly effective programs which are too difficult or expensive for most programs to implement, are not useful from a public health perspective. Future research should emphasize effective but "user friendly" interventions that most programs can implement. Lipsey's (2009) and Tennyson's (2009) findings that program models which are well designed, have rigorous implementation, and target high risk youth, can be effective, should serve as encouragement for those who wish to do research with "cheaper and easier", but effective treatment options that have the potential for widespread implementation.

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Table 1: Top Components of Adolescent Community Programs
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Component	2002 (%)	2009 (%)
Cognitive-behavioral	90.9	86.9
Relapse prevention	75.1	51.5***
Psycho-socio-educational	43.8	35.4***
Family systems	30.0	34.3
Multisystemic	21.8	18.7
*** Changes has p< .001		

-----Table 2: The Sexual Offense Cycle Model

Treatment Goals
Admission of responsibility for sexual
offenses
Safety plan for offender and victims, and "buy
in" by youth, family, and PO
Admitting thinking errors
Improved management of youth by family
Understanding impact on victim
Understanding prior victimization / sexual
exposure
Victim apology letter
Understanding sex offense cycle
Developing relapse prevention plan
-

Table 3:		1						
Programs for Youth in the Juvenile Offender	N of Programs	Percent	Benefits to	Benefits to	Cost, Marginal	Total Benefits	Marginal	
System		Change in	Victims	Taxpayers	Compared to	minus Costs/	Cost to	
		Crime			Alternative	Participant	Reduce	
		Outcomes					Crime 1%	
Multidimensional Treatment Foster Care (vs.	3							
regular group care)		-22.0%	\$51,828	\$32,915	\$6,945	\$77,798	\$316	
Adolescent Diversion Project (for lower risk							ſ	
offenders)	6	-19.9%	\$24,328	\$18,208	\$1,913	\$40,623	\$96	
Family Integrated Transitions	1	-13.0%	\$30,708	\$19,502	\$9,665	\$40,545	\$743	
Functional Family Therapy on probation	7	-15.9%	\$19,529	\$14,617	\$2,325	\$31,821	\$146	
Multisystemic Therapy	10	-10.5%	\$12,855	\$9,622	\$4,264	\$18,213	\$406	
Aggression Replacement Training	4	-7.3%	\$8,897	\$6,659	\$897	\$14,660	\$123	
Teen courts	5	-11.1%	\$5,907	\$4,238	\$936	\$9,208	\$84	
Juvenile boot camp to offset institution time	14	0.0%	\$0	\$0	-\$8,077	\$8,077	NA	
Juvenile sex offender treatment	5	-10.2%	\$32,515	\$8,377	\$33,064	\$7,829	\$ 3,242	
Restorative justice for low-risk offenders	21	-8.7%	\$4,628	\$3,320	\$880	\$7,067	\$101	
Interagency coordination programs	15	-2.5%	\$3,084	\$2,308	\$205	\$5,186	\$ 82	
Juvenile drug courts	15	-3.5%	\$4,232	\$3,167	\$2,777	\$4,622	\$793	
Regular surveillance-oriented parole (vs. no								
parole supervision)	2	0.0%	\$0	\$0	\$1,201	-\$1,201	NA	
Juvenile intensive probation supervision programs	3	0.0%	\$0	\$0	\$1,598	-\$1,598	NA	
Juvenile wilderness challenge	9	0.0%	\$ 0	\$ 0	\$3,085	-\$3,085	NA	
Juvenile intensive parole supervision	10	0.0%	\$0	\$0	\$6,460	-\$6,460	NA	
Scared Straight	10	6.8%	-\$8,355	\$6,253	\$58	-\$14,667	 \$9	

Table 4: Developmental Treatment Model: Domains and Goals					
Domain	Goal				
Self-Regulation	Can regulate mood states with biofeedback, self talk, etc.				
Attachment	Can identify others feelings and interact appropriately and safely.				
Independence	Takes appropriate responsibility for ADL tasks with good judgment and motivation.				
Social	Applies "Golden Rule" in social interactions, and interacts comfortably with direction.				
Cognitive	Academic and cognitive achievement and using compensatory skills.				
Health Sexuality	Age appropriate sexual knowledge, beliefs and behaviors.				
Adapted from Dr. Kevin Creeden (personal communication, April 4, 2010).					

Table 5: The "Golden Rule" Worldwide

• Brahmanism: This is the sum of duty: Do naught unto others which would cause you pain if done to you.

(Mahabharata 5:1517)

• Buddhism: Hurt not others in ways that you yourself would find hurtful.

(UdanaVarga5:18)

• Christianity: All things whatsoever ye would that man should do to you, do ye even so to them; for this is the law and the prophets. (Matthew 7:12)

• Confucianism: Surely it is the maxim of loving-kindness: Do not do unto others what you would not have them do unto you. (Analects 15:23)

(Analects 15:23)

• Islam: No one of you is a believer until he desires for his brother that which he desires for himself.

(Sunnah)

• Judaism: What is hateful to you, do not to your fellowman. That is the entire law; all the rest is commentary.

(Talmud, Shabbat 31a)

• Taoism: Regard your neighbor's gain as your own gain and your neighbor's loss as your own loss.

(T'aiShang Kan YingP'ien)

• Zoroastrianism: That nature alone is good which refrains from doing unto another whatsoever is not good for itself. (Dadistan-I-dinik 94:5)

• Sikhism: "As thou deemest thyself, so deem others."

• Shawnee Tribal Teachings:

"Do not kill or injure your neighbor, for it is not him that you injure, you injure yourself. But do good to him, therefore add to his days of happiness as you add to your own. Do not wrong or hate your neighbor, for it is not him that you wrong, you wrong yourself. But love him, for The Great Spirit (Moneto) loves him also as he loves you."

http://www.heartlandsangha.org/golden_rule.html, http://www.virtuescience.com/golden-rule.html, http://algsmith.com/category/how-to-be-happy/