

Deviant Peer Influences in Intervention and Public Policy for Youth

Kenneth A. Dodge, Thomas J. Dishion, and Jennifer E. Lansford

Abstract

The problem is well known to every parent of a teenager, every high school teacher, every clinical practitioner, and every social policy maker: vulnerable adolescents risk becoming more deviant through association with deviant peers and peer groups. Deviant peer influences are among the most potent factors in the development of antisocial behavior. Deviant youth are prone to seek out other deviant youth, but the tendency to self-select into deviant peer groups does not fully account for the effect that the peer group has on exacerbating the problem. More exposure to deviant peers increases the opportunity for peer influences to operate. It is now becoming known that well-intentioned adults and government programs may also exacerbate deviant peer influences by placing deviant youth into programs and settings that are populated by other deviant youth. In fact, the most common policy is to segregate unruly youth from the mainstream peer group and to place them in groups composed entirely or mostly of deviant peers. New studies indicate that sometimes this practice results in harmful effects. That is, the children whom we are attempting to help may in fact be made worse by our efforts. Placing a deviant adolescent with deviant peers can reduce the intended benefits of interventions and lead to less positive, sometimes even negative, outcomes, especially under conditions of poor supervision and lack of structure. Nonetheless, deviant youth do require a response, and economic, political, and treatment considerations complicate the solution. This report reviews the evidence on group interventions for deviant adolescents and makes recommendations that address the public policy problem of placements for deviant youth.

This report makes the following recommendations: 1) Programs, placements, and treatments that aggregate deviant youth that are ineffective as well as costly should be terminated whenever possible; 2) Effective alternatives to deviant peer-group placement are available and should be supported; 3) Policy decision-making should take into account the system-wide impact of interventions and placements on both deviant youth and their communities; and 4) Practitioners, programs, and policymakers should document the peer context of each placement and evaluate the impact of each placement on the youth and the community.

Social Policy Report

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From the Editor

In this *Social Policy Report*, Ken Dodge, Thomas Dishion, and Jennifer Lansford review the scientific evidence demonstrating how deviant behavior such as delinquency is contagious and spreads among deviant youth when they associate with each other OR are placed with each other as a result of social policies. There is a long history of first-rate research in developmental psychology and other fields that demonstrates how this contagion results. The report also points out that our typical social response to youth deviance is to separate these youth from their families, schools, and communities and place them with youth who show similar problems. The research shows that such placements exacerbate youth's problems by placing them in a situation where the problems they show are the norm rather than the exception. The fact that contagion occurs will not likely surprise parents of deviant youth or program staff and caseworkers, but it has yet to capture the attention of policymakers or program directors.

The research is clear. The policy solution is not. While placing youth who show behavior problems with other youth who show similar problems aggravates rather than remedies the problems, such young people do require segregation from the general population and treatment or prevention efforts relevant to their problems. Hence, unlike in other *Reports* where research offers a clear direction for policy, this *Report* illustrates how research points to the complexities involved in formulating youth policy.

Dodge and all offer several recommendations for policy. For example, deviant youth are not homogeneous so that the severity of the problem should be recognized in any placements. Parents, schools, and communities should be viewed as resources that offer alternative opportunities to standard group placements. I would add one final recommendation: Treatment of deviant youth should follow a positive youth development model (PYD) attempting to promote positive development rather than JUST treating deviancy or trying to prevent future occurrences of it. Youth show deviant behaviors for some reason(s). Often the reasons reside in the environment—in the lack of support in families, schools, and communities. A PYD approach points out how policy should be directed to improving the contexts youth live in rather than just trying to change individual characteristics or behaviors. And by placing youth who show various behavior problems with similar youth we contribute to the continuation of such environments rather than improve them. Dodge and colleagues point to several alternative models that reflect this PYD perspective. And they argue for the need to move away from medical and moral retribution models. The PYD approach offers an attractive alternative model.

Brooke and I hope this issue of the *Social Policy Report* will offer some guidelines for how we should approach a difficult problem and that it will thereby point out the complexities of many social issues with which we wrestle, demonstrating how essential it is that research be part of the mix that informs policies.

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Deviant Peer Influences in Intervention and Public Policy for Youth*

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The Problem of Deviant Peer Influence in Public Interventions

The problem is well known to many parents of teenagers, high school teachers, clinical practitioners, and social policy-makers: Vulnerable adolescents are at risk for becoming more deviant through association with deviant peers and peer groups. Deviant peer influences are among the most potent factors in the development of antisocial behavior. Deviant youth are prone to seek out other deviant youth, but the tendency to self-select into deviant peer groups (called homophily) does not fully account for the effect that the peer group has on exacerbating the problem; in fact, by increasing exposure to deviant peers, homophily increases the opportunity for peer influences to operate.

It is now becoming known that well-intentioned adults and government programs may also exacerbate deviant peer influences by placing deviant youth into programs and settings that are populated by other deviant youth. Perversely, much of what we do as public policy is to segregate deviant youth from their mainstream peers and assign them to settings with other deviant youth. In some cases, such action is even mandated by law. The Governor of Illinois recently signed legislation that requires Chicago schools to implement a deviant peer aggregation intervention, Scared Straight, which is known to have harmful effects, with all high-risk youth (Sherman & Strang, 2004).

*This report draws on the work of the Duke University Executive Sessions Panel on Deviant Peer Contagion, which assembled six times over a 3-year period to complete a comprehensive analysis of the problem of deviant peer influence during interventions in education, mental health, juvenile justice, and community programs. The original conveners included Kenneth A. Dodge, Thomas J. Dishion, and Joan McCord. McCord's untimely death preceded the conclusion of the panel's work, and so this report is dedicated to her memory. The panel included nationally recognized scholars (including members of the National Academy of Engineering and the Institute of Medicine) from economics, psychology, political science, sociology, education, engineering, philosophy, statistics, and criminology; policymakers (including leaders of federal agencies); practitioners (including the presiding Juvenile Court Judge in Dade County, Florida); journalists; and businessmen. The panel reviewed the scientific literature; conducted site visits to intervention programs; administered focus groups with youth, interventionists, and parents; initiated several new empirical studies; completed a meta-analysis; and deliberated over the evidence. The complete report is being published in 2006 by Guilford Press. Members of the Panel were: E. James Anthony, Anthony Biglan, Al Blumstein, Philip Cook, Thomas J. Dishion, Kenneth A. Dodge, Greg Duncan, Mark Eddy, Ted Gest, Mary Gifford-Smith, Kathi Grasso, Peter Greenwood, Darnell Hawkins, Malcolm Klein, Jennifer E. Lansford, Honorable Cindy Lederman, Jerry Lee, Mark Lipsey, Jens Ludwig, D. Wayne Osgood, Winifred Reed, Wendy Reinke, Rebecca Silver, Emilie Phillips Smith, Jacob Vigdor, Hill Walker, and Melvin Wilson. The authors are grateful for funding for these efforts from the Duke University Provost's Office and the W. T. Grant Foundation. Direct correspondence to the first author at the Center for Child and Family Policy, Duke University, Durham, NC 27708, or dodge@duke.edu.

Removal of deviant youth from well-adjusted peers and "quarantined" placement with other deviant youth occurs in education, mental health, juvenile justice, and community programming. Placement into deviant groups is the most common and most costly of all public policy responses to deviant behavior by a child (Dodge, Dishion, & Lansford, in press). The rationale for these placements is clear: It is financially and logistically more efficient to treat deviant youth in groups rather than individually, and the public prefers that deviant youth be segregated so that they cannot disrupt or endanger classrooms and communities. Is this action the wisest policy to take, for deviant youth, their nondeviant peers, and public use of tax dollars?

The Magnitude of the Public Practice of Aggregating Deviant Youth

Mental health. The practice of segregating deviant youth from mainstream peers and aggregating them with other deviant youth occurs commonly in public systems in mental health, education, juvenile justice, child protective services, and community programming. In 1998, direct costs for the treatment of mental health disorders among the 55 million children in the US were approximately \$11.75 billion (NIMH, 2004). Although only about 15% of the children in the mental health system (about 120,000 children) are treated by aggregating them in groups, 52% of the total costs in the child mental health system, or about \$6 billion per year, is spent on treatments that aggregate deviant youth (extrapolating from Medicaid expenditure reports for North Carolina in state fiscal year 2002-2003, A. Holtzman, personal communication, February 8, 2005). Group treatments include residential therapies, day treatment programs, group homes, therapies, and social skills training.

The rationale for group treatment goes well beyond cost containment and efficiency. Proponents believe that deviant youth can empathize with each other, learn valuable lessons from each other, and provide real-life interactions for each other that are grist for intervention. This rationale guides Alcoholics Anonymous, group intervention for eating disorders with girls (Polivy & Federoff, 1997), social skills training programs (Bierman, 2003), and numerous self-help groups.

Segregating unruly students from the mainstream classroom and placing them into alternate settings has become common practice in education. The practice occurs in tracking based on low academic achievement, which is correlated with disruptive behavior. Tracking policies affect friendship choice, leading low-tracked children to associate more with each other and to grow distant from high-tracked peers (Kubitscheck & Hallinan, 1998). The use of grade retention, which has increased through the No Child Left Behind Act, further isolates deviant youth from same-age peers and leads retained youth to form associations with other retained youth (Jimerson, 2001). The practice grows through special education placement for serious emotional disturbance. Segregated placements have increased

with the federal Individuals with Disabilities in Education Act (IDEA; National Research Council, 2002), even though the act mandates the least restrictive placements for these students.

Federally mandated zero-tolerance policies based on the Gun-Free Schools Act of 1995 and media reporting of sensationalized school violence in the 1990s have led to an unprecedented increase in the practice of long-term suspension and expulsion of students for deviant behavior (Kingery, 2000). Over three million students were suspended and 87,000 expelled in 1998. Recognition that suspended students hang out on street corners with each other and evidence that students with a history of suspension are 2.2 times more likely to be incarcerated as adults than students with no such history (Arum & Beattie, 1999) has led to the search for programs to help youth who are not allowed to attend public school with mainstream peers. Alternative schools, which had originally been designed for nondeviant youth who had a difficult time learning in regular school settings, were modified to accommodate deviant students (Raywid, 1994). Of the 501.3 billion tax dollars spent on public K-12 education in the United States in 2003-2004, one state's estimate is that 3%, or over 15 billion dollars nationally, is now spent on alternative schools and programs for deviant students (Public Schools of North Carolina, 2003). In 2000, over 613,000 students nationwide were enrolled in alternative schools or group programs for deviant youth (Kleiner, Porch, & Farris, 2002). The practice is growing. In 2001, 39% of all public school districts had alternative schools or similar programs, and in the past 3 years, the demand exceeded the allocated supply for 54% of these programs (Kleiner et al., 2002). In North Carolina, every school district must develop an alternative school placement option for deviant youth.

Juvenile justice. About 20% (or 320,000 youth) of the 1.6 million youth who were brought before juvenile courts in 2000 were placed into secure detention facilities with other offending youth (OJJDP, 2003). The figure does not include juveniles who are adjudicated in adult court and sent to adult prisons. Of the \$5 billion spent on juvenile courts each year, about 93%, or \$4.65 billion, is spent on programs that aggregate deviant youth (e.g., training schools, detention centers, other residential facilities, day treatment centers; Loughran et al., 2004). The remaining 7% is spent on parole, probation, and home-based services that may or may not have aggregated deviant youth.

Community and housing programs. High-risk youth get placed with each other in a variety of ways in community programs, including after-school programs, youth development programs, and community centers. No reliable figures have been generated regarding the number of dollars spent on these programs, but simple estimates are in the billions of dollars annually. About 3.6 million youth attend after-school centers, including the 21st Century Community Learning Center Program (James-Burdumy et al., 2005). Youth placed in after-school centers tend to come from less wealthy families

with single mothers. Many programs that are designed to keep at-risk youth off the streets, and that are sponsored by public and private agencies in the United States, often offer little structure or adult supervision and simply provide a place for youth to "hang out." Examples include basketball leagues (including the ill-fated Midnight Basketball program) and community centers. These programs aggregate high-risk youth by virtue of limiting the population that they serve.

In other domains, such as foster care and public housing, although policies do not explicitly aggregate deviant youth, policies lead to the aggregation of deviant youth in practice. Several million children live in the nation's 1.3 million public housing units, which are concentrated communities of poor families, where high-risk youth come together in ways that may increase their risk for deviant behavior.

Mechanisms of Deviant Peer Contagion in Intervention

Placement into a group fosters labels of the group by the self, other group members, and outside observers. Labeling effects have been found to exert important influence on both the child and external judges, through self-fulfilling prophecies. These processes are legion in education (Rosenthal, 1994), but they also have been found in mental health and juvenile corrections. Johnson, Simons, and Conger (2004) found that mere processing of a youth in juvenile courts systems had adverse effects on subsequent criminal offending (controlling for prior offending), suggesting the influence of virtual association with deviant peers through labeling of a youth as a member of a deviant category.

Yet another likely mechanism is the increased opportunity for committing offenses that placement with deviant peers affords a youth. The peers may offer drugs, weapons, information about location of targets of robbery, new enemies in rival gangs or authorities, and a "team" that increases the probability of success through deviant behavior. The peers may also provoke the youth more frequently. The opportunities are coupled with an influence process that promotes deviant behavior.

Jussim and Osgood (1989) suggest that deviant peer influence occurs when a youth perceives the group's norms for behavior and displays those behaviors, and then the peer group positively reinforces that behavior. Buehler, Patterson, and Furniss (1966) found that among girls in a residential facility, peers were more likely to respond to a youth's behavior than were staff, which gave peers greater power to shape behavior. Over two thirds of peers' responses to deviant acts were reinforcing, whereas nondeviant behaviors were typically punished. Staff did not consistently punish or reinforce any behavior.

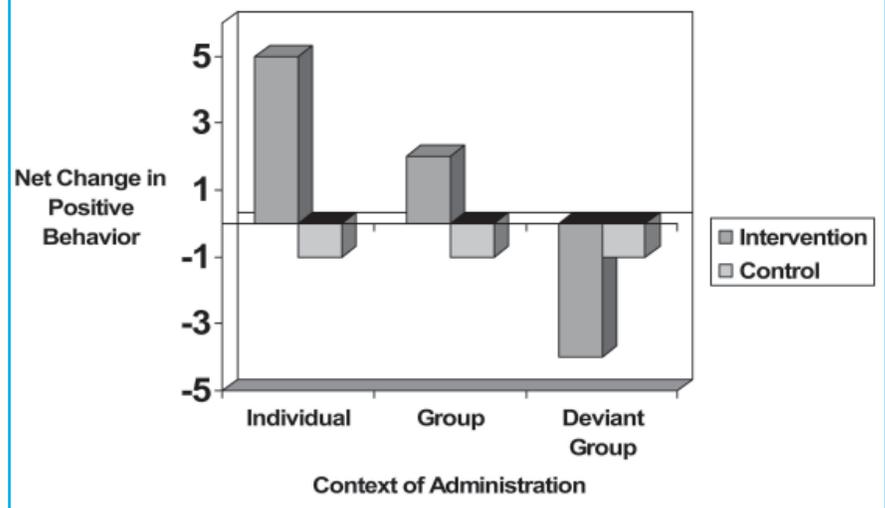
Dishion et al. (1996) have synthesized these perspectives in a general theory of deviancy training that describes how deviant peers influence a youth to become more deviant. Deviancy training occurs when a peer displays antisocial behavior or talks

about it and other peers positively reinforce that behavior by smiling or giving verbal approval and high status to the first peer. A youth observes this norm and then engages in similar talk or behavior, which is also reinforced. Soon, the youth is drawn into the peer culture and becomes more deviant. Deviancy training has been observed in intervention groups even in the presence of adults who attempt to supervise. Lavalley et al. (2005) found that ratings of deviancy training within first-grade intervention groups predicted growth in aggression for some youth, thus partially offsetting the positive effect of the intervention itself. Dishion, Burraston, and Poulin (2001) found that incidental deviancy training interactions among peers before intervention group sessions, during breaks, and at the end of group sessions predicted growth in smoking and delinquent behavior up to 3 years after the groups.

A General Model of Deviant Peer Effects in Interventions and Policies

Review of the evidence in diverse domains indicates that programs have varied impact on participants and, therefore, modeling deviant peer influences in interventions and policies requires consideration of multiple factors. The evidence indicates that (at least) four different effects operate at the same time during interventions and policy instruments targeted toward deviant youth. Some of these effects might be positive and some negative, and they can cumulate or offset each other. These effects can be represented in a model that includes: 1) therapeutic effects in individual administration; 2) effects of the group context; 3) effect of administration in a deviant peer group; and 4) other moderator factors. That is, there are four factors or effects that operate to determine the net effectiveness of any intervention or placement. The first effect is the intended positive effect of the therapy or program. Numerous meta-analyses of randomized control trials have indicated that in specific domains, such as child psychotherapy (Weisz et al., 1995) and juvenile justice prevention programs (Lipsey chapter in Dodge et al., in press), assignment to treatment in an individual context is associated with a positive impact on targeted outcomes. The second effect is a diminution of this positive impact if the therapy is administered in a group context. Most interventions are less effective when administered in a group rather than individually, perhaps due to relatively less attention from the therapist. In policy analyses of some cases, this reduction of impact might be offset by savings in program costs. The third effect is the adverse impact of intervention that places deviant youth with deviant peers. Rarely is placement with deviant peers associated with no or an incremental positive impact; more frequently, the marginal effect is negative, due to the processes of labeling, communication and acquisition of cultural norms,

Figure 1. Model of Hypothesized Effects of Prototypic Interventions for Youth



reinforcement, and deviancy training, as previously outlined. Finally, the fourth effect is the sum of an array of moderating factors, such as age of the children and level of therapist experience, that could exacerbate or minimize the adverse effects of interaction with deviant peers.

The next sections of this report review the state of evidence regarding deviant peer effects in various types of intervention. The evidence reveals a wide variety of effects across programs, but there is general support for the two major hypotheses: 1) aggregation with deviant peers dampens an otherwise positive impact of intervention; and 2) the magnitude of negative impact by aggregating a deviant youth with deviant peers depends on features of the youth, the group, and the leader.

Studies of group-administered programs that have been found to lead to harmful outcomes through randomized controlled trials are summarized in Table 1. Group programs that have been found to be ineffective or to lead to harmful outcomes are listed in Table 2. Fortunately, for each type of program, effective interventions have also been identified that do not aggregate deviant youth; furthermore, modifications to peer-group interventions have been identified that have been shown to buffer or muffle the adverse effect of deviant peer-group placement. These solutions are listed in Table 3 and described here as well.

Deviant Peer Effects and Solutions in Mental Health

Deviant Peer Effects

For over 30 years, evaluators have cautioned mental health care providers about the dangers of mental health treatments that group deviant youth (Fo & O'Donnell, 1975; McCord, 1992), but group therapy remains the treatment of choice (or the default) in many contexts. A meta-analysis by Weisz et al. (1987) found that, relative to individually administered therapy,

Table 1
Selected Randomized Control Trial Studies Yielding Adverse Effects of Deviant Peer-Group Aggregation on Youth Outcomes

Source	Outcome	Age	Nature of Intervention	Participants	Leader: Student Ratio	Effect of Group Tx
Berger et al.	Court records	Adolescents	Control: Ordinary court services; Tx: group counseling, tutoring	Delinquents		Adverse main effect
Boxer et al.	Behavior problems	Grades 3 and 6	Control: Classroom only; Tx: Added small groups	At risk	1:5	Process effect; more negative effect in groups with more aggressive peers
Catterall	HS dropout	Grades 10 to 12	Control: Wait-list; Tx: residential camp	High risk	6:100	Adverse main effect
Cavell & Hughes	Aggressive beliefs	Grade 3 to 4	Control: Standard classroom; Tx: social skills group	High risk	1:2-5	Adverse main effect
Cho et al.	Substance use	Grades 9 to 11	Control: No intervention; Tx: group reconnecting youth	High risk		Adverse main effect
Dishion & Andrews	Substance use		Control: Individual Tx; Tx: teen focus groups			Adverse main effect
Duncan et al.	Alcohol overuse	College freshmen	Control: Low-risk roommate; Tx: high-risk roommate	Any		Moderated effect; negative effect only for high-risk males
Ellickson et al.	Smoking	Grades 7 and 8	Control: No intervention; Tx: Project ALERT	Mixed risk		Moderated effect; negative effect for high-risk participants
Feldman et al.	Behavior	Grades 7 to 9	Control: Mixed-risk groups; Tx: high-risk groups	Mixed risk; problems	1:10-15	Adverse main effect and moderation by structure
Fo & O'Donnell	Behavior problems	10 to 17 years	Control: No intervention; Tx: Buddy system intervention	High risk	1:1	Mixed
Gottfredson	Delinquent behavior	Grades 9 to 12	Control: No intervention; Tx: Peer culture development	Mixed risk		Adverse main effect
Gottfredson et al.	Behavior problems; substance use	Grades 4 to 8	Control: Wait list; Tx: after-school program	Any students	1:22-45	Moderation effect; less positive effect for younger children when addressing substance use
James-Burdumy et al.	Antisocial behavior	Elementary school	Control: No intervention; Tx: after-school program	Mixed		Adverse main effect
Leve & Chamberlain	Behavior disorders	Middle and high schoolers	Tx1: Foster home; Tx2: group home	At risk		Adverse main effect
Lewis	Delinquency	Teenagers	Control: Tx as usual; Tx: 9 Scared Straight programs	Very high risk		Adverse main effect
Mann et al.	Eating disorders	College freshmen	Control: No intervention; Tx: discussion groups	Any	2:10-20	Adverse main effect
McCord	Behavior disorders	Mean = 10.5 years	Control: no intervention; Tx: group summer camp	At risk		Adverse main effects
Palinkas et al.	Substance use	14 to 19 years	Control: Educational curriculum; Tx: added skills training	High risk	1:8-12	Adverse main effect
Shelton et al.	Behavior disorders	Kindergarten	Control: Standard classrooms; Tx: special classrooms	High risk	2:14-16	Adverse main effect

Table 2*

Programs and Policies That Aggregate Deviant Peers and Sometimes Have Harmful Effects

Mental Health

1. Any group therapy in which ratio of deviant to nondeviant youth is high
2. Group therapies with poorly trained leaders and lack of supervision
3. Group therapies offering opportunities for unstructured time with deviant peers
4. Group homes or residential facilities
5. Discussion groups focused on eating disorders

Education

1. Tracking of low-performing students
2. Forced grade retention for disruptive youth
3. Self-contained classrooms for unruly students in special education
4. Group counseling of homogeneously deviant youth
5. Zero-tolerance policies for deviant behavior
6. Aggregation of deviant youth through in-school suspension
7. Expulsion practices
8. Alternative schools that aggregate deviant youth
9. Individuals with Disabilities Education Act (IDEA) reforms that allow disruptive special education students to be excluded from mainstream classrooms
10. School-choice policies that leave low-performing students in homogeneous low-performing schools

Juvenile Justice and Child Welfare

1. Group incarceration
2. Military-style boot camps and wilderness challenges (brat camp)

3. Incarceration placement with other offenders who committed the same crime
4. Custodial residential placement in training schools
5. Three Strikes-mandated long prison terms
6. Scared Straight
7. Group counseling by probation officer
8. Guided Group Interaction
9. Positive Peer Culture
10. Institutional or group foster care
11. Bringing younger delinquents together in groups
12. Vocational training

Community Programming

1. Midnight Basketball
2. Unstructured settings that are unsupervised by authority figures (e.g., youth recreation centers designed as places for teens to hang out)
3. Group programs at community and recreation centers that are restricted to deviant youth
4. After-school programs that serve only or primarily high-risk youth
3. 21st Century Community Learning Centers
4. Interventions that increase the cohesiveness of gangs
5. Gang Resistance Education and Training program
6. Comprehensive Gang Intervention program
7. Safe Futures program
8. Urban enterprise zones
9. Federal housing programs that bring together high-risk families

*Taken From Dishion, Dodge, & Lansford (in press)

Table 3*

Effective Programs That Offer Viable Alternatives to Aggregating Deviant Peers

<p>Mental Health</p> <ol style="list-style-type: none"> 1. Individually administered treatment 2. Family-based interventions 3. Adolescent Transitions Program 4. Linking the Interests of Families and Teachers 5. Iowa Strengthening Families Program 6. Familias Unidas 7. Mentoring programs such as Big Brothers/Big Sisters <p>Education</p> <ol style="list-style-type: none"> 1. Universal, environment-centered programs that focus on school-wide reform, including: <ol style="list-style-type: none"> (a) Clearly explicated expectations for student and staff behavior; (b) Consistent utilization of proactive school discipline strategies; (c) Active monitoring of “hot spots” for behavior problems; and (d) Improved systems to monitor student achievement and behavior. 2. Universal classroom programs to build social competence (e.g., Responding in Peaceful and Positive Ways, PATHS) 3. School-wide Positive Behavior Support 4. Individual behavior support plan for each student 5. Improved training in behavior management practices for classroom teachers, especially: <ol style="list-style-type: none"> (a) Group contingencies; (b) Self-management techniques; and (c) Differential reinforcement. 6. Incredible Years Teacher Training 7. Good Behavior Game 8. Consultation and support for classroom teachers 9. Family-based Adolescent Transitions Program 10. Matching deviant youth with well-adjusted peers (e.g., coaching, BrainPower, Peer Coping Skills Training, the Montreal Longitudinal Project) 11. Multi-modal programs (e.g., LIFT, Fast Track, Seattle Social Development Project) 12. Proactive prevention programs that shape student “morals” 	<p>and encourage responsible decision-making</p> <p>Juvenile Justice and Child Welfare</p> <ol style="list-style-type: none"> 1. Functional Family Therapy 2. Multisystemic Therapy 3. Multidimensional Treatment Foster Care 4. Intensive Protective Supervision 5. Teaching Family Home Model 6. Sending delinquent youth to programs that serve the general population of youth in their neighborhoods (e.g., Boys and Girls Clubs) 7. Community rather than custodial settings 8. Interpersonal skills training 9. Individual counseling 10. Treatment administered by mental health professionals 11. Early diversion programs 12. Victim-Offender Mediation 13. Teen Court programs 14. Therapeutic Jurisprudence 15. Community Commitment Orders 16. Psychiatric Advance Directives <p>Community Programming</p> <ol style="list-style-type: none"> 1. Public or private organizations that are open to all youth, regardless of risk status, and that provide structure and adult involvement (e.g., religious groups, service clubs, Scouts, Boys and Girls Clubs) 2. School-based extracurricular activities 3. Encouragement of commitments outside of gangs (e.g., to jobs, family roles, military service, mentors) 4. Early childhood interventions such as the Perry Preschool program 5. Job Corps 6. Policing programs that target high-crime neighborhoods where high-risk youth congregate 7. Community efforts to reduce marginalization of specific groups of youth <p>*Taken from Dishion, Dodge, & Lansford (in press)</p>
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group-administered psychotherapy for youth yielded an average effect size (Cohen's δ) that was 40% less, from 1.04 to .62. Effect size is a measure of the magnitude of impact that a treatment has on participants, relative to control-group youth, in units of a standard deviation. An effect size of 1.0 means that treatment-group participants had average scores that were one full standard deviation larger than those of control-group members. Weisz et al. (1995) updated their meta-analysis a decade later and found that the reduction in effect size was 26%, from .63 to .50. The diminished impact of group-administered treatments is sizeable and very costly. It is not clear how much of this loss of positive impact is due to administration in a group context versus the explicit exposure to deviant peers in that context.

Ang and Hughes (2002) tried to sort out these effects. They meta-analyzed social skills training interventions for conduct-problem children, specifically contrasting all-deviant peer groups with mixed groups (including both deviant and nondeviant children) as well as interventions administered individually. Given that the theory (cognitive behavioral), goals (reduction of conduct problems), and methods (combined didactic and role-play) of these interventions are generally common among all three contexts, this meta-analysis is a relatively specific test of the impact of deviant-peer aggregation. At the conclusion of treatment, individual-context intervention yielded the largest average effect size (.78), followed by mixed groups (.60), and then all-deviant groups (.55), on measures of overall psychological and behavioral adjustment. On measures of social adjustment, the all-deviant groups yielded an effect size (.41) that was about one third less than the other contexts (.64). At a one-year follow-up, the all-deviant peer-group context yielded an average effect size of .30, which was one third less than that of other contexts (.46). Thus, social skills training produces favorable effects, but about a third of the total possible effect is offset when the intervention is administered in a context consisting solely of deviant peers.

Randomized clinical trials illustrate the circumstances in which the effects of placement with deviant peers can lead not only to reduced positive effects but also to adverse outcomes. The Cambridge-Somerville Youth Study (McCord, 1992; 2003) is the largest mental health intervention experiment ever to prevent antisocial behavior among youth who were selected because of their early displays of deviant behavior. After five and a half years of treatment (on average), boys assigned to treatment were more likely than controls to have had a court appearance and had been brought to court for more offenses. Thirty years later, treatment boys were more likely than controls to have experienced a "bad" outcome. Because the treatment

was multifaceted and administered in different ways to different youth, McCord (1992) analyzed various subgroups and found that the 66 boys who had participated in summer camp groups for two or more consecutive summers were responsible for the adverse overall impact, relative to their matched controls. She concluded that aggregation with deviant peers, deviancy training, and the opportunity to show off and learn deviant behavior in this context were the mechanisms of impact. Because this subgroup of treatment youth self-selected into the summer camp intervention (and their matched controls had not), the virtues of random assignment are partially lost in this analysis, and this finding must be taken with caution.

Another random-assignment study tested the impact of a modification of Guided Group Interaction Therapy, called Peer Culture Development (PCD, Gottfredson, 1987). Opportunities for deviancy training were likely, given the open context of nondirective discussion in school-based groups. The groups consisted of a majority of behavior-problem youth, along with a few nondeviant peers. Significant adverse effects of assignment to intervention were found for self-reported delinquency, drug use, attachment to parents, and school records for tardiness.

Dishion and Andrews (1995) created a peer-group intervention to prevent substance use that focused on cognitive-behavioral techniques to regulate behavior. They randomly assigned high-risk youth to receive this intervention, a parent-group intervention, both, or neither. The peer-group intervention achieved its proximal goal of increasing social-cognitive skills, but, within one year after treatment, teacher report of conduct problems and self-report of tobacco use were significantly higher for youth who had been assigned to one of the two peer-group intervention conditions than to other conditions. The effects persisted in the 2- and 3-year follow-ups, using reports by teachers who had no knowledge of the original intervention (Dishion et al., 1999; Poulin et al., 2001).

Yet another deviant peer-group intervention that yielded adverse impact was the St. Louis Study by Feldman, Caplinger, and Wodarski (1983). They randomly assigned high- and low-risk boys to a 24-session peer-group intervention administered through local community centers. The boys were randomly assigned to a group that was populated by high-risk-only boys, low-risk-only boys, or mixed peers (which included 1 or 2 high-risk boys, with the rest being low-risk boys). Direct observations, self-reports, and therapist reports revealed that high-risk boys assigned to all-deviant peer groups increased their rate of antisocial behavior, whereas high-risk boys assigned to groups with nondeviant peers decreased their antisocial behavior rate.

The children
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may in fact be
made worse by
our efforts.

It is important to note that the low-risk youth were not adversely affected by association with one or two high-risk youth in a group of 8 (versus interaction with only other low-risk youth). Generally, low-risk youth changed their behavior very little across time. A general finding in group interventions is that nondeviant youth are not adversely affected by interacting with deviant youth as long as the ratio of nondeviant to deviant youth is high and the cultural norm remains prosocial.

Shelton et al. (2000) aggregated high-risk children into classrooms where they received training in social skills and self-control. Compared to randomly assigned control children, treatment participants were 17.3% more likely to develop attention deficit hyperactivity disorder (ADHD) and 12.5% more likely to develop oppositional defiant disorder (ODD). Palinkas et al. (1996) contrasted high-risk girls who were randomly assigned to a routine educational curriculum with girls assigned to the curriculum plus a social skills training discussion group populated by other high-risk girls and found that girls assigned to a group were more likely than controls to use alcohol, marijuana, and tobacco. Duncan et al. (2005) used the natural randomness of college roommate assignment to find that males who had been drinkers in high school and who had been randomly assigned a college roommate who had been a binge drinker in high school were more likely to engage in binge drinking than similar males who had been assigned a nondrinker.

Solutions

Universal mental health approaches to bullying prevention in communities and schools have proven effective in several European countries. Although their promise for the US is strong, the major barrier seems to be the unwillingness of school districts to embrace the total commitment that these programs require in this day of accountability through standardized academic testing. It is possible that such efforts would receive stronger support if outcomes in social competence could be tested in more efficient yet valid ways.

Random-assignment experiments reveal that individual-level mental health interventions that emphasize parents' behavior management skills and the child's interpersonal skills development have demonstrated the strongest effectiveness in reducing conduct problems. Family-based interventions that utilize behavioral principles are becoming the standard in the field. With children, the relative deficits in social-cognitive skills displayed by conduct-problem youth, coupled with strong evidence of the effectiveness of social skills training programs, suggest the implementation of social skills training programs with individual children. Multimodal programs that include fam-

ily involvement, skills training with youth, and school behavior management should also be encouraged.

Family-centered treatment programs directed to individual children have repeatedly yielded successful outcomes in reducing both emotional and behavior problems in children and adolescents. If aggregation is necessary for treatment, then it is critical to provide substantial supervision, to be sensitive to the context of the intervention, and to continue to evaluate the potential deviant peer contagion.

Intensive parenting support that is linked to a range of mental health and substance use treatment services is a viable alternative to programs that aggregate neglected and abused children and adolescents. When out-of-home placement is necessary, then multidimensional treatment foster care with long-term adoption options is the optimal strategy for reducing deviant peer contagion.

Deviant Peer Effects and Solutions in Education

Deviant Peer Effects

It is clear that typical school policies tend to aggregate deviant youth with each other, and these practices exacerbate deviant behavior among those youth. These practices include academic tracking, retention, self-contained classrooms for children with emotional or behavioral disorders, and disciplinary practices that involve suspension, expulsion, or placement into alternative schools. In a startling recent study, Jacob and Lefgren (2003) found that school itself increases violent crime by 28%. On days when school is in session, violent crime is increased, and on days when school is not in session, violent crime is reduced. Jacob and Lefgren blame the influence of deviant peers on deviant youth, through interaction that had been fostered by school policies to aggregate deviant youth.

Because academic and behavioral difficulties are highly correlated, one inadvertent effect of tracking may be to aggregate students with behavior problems in the lower academic tracks. Deviant peer contagion may occur if students in the lower tracks incorporate disengagement from school into their collective identity. Similarly, to the extent that students who are retained in grade share a common experience that draws them to other students who may also identify themselves as school failures, this practice may foster connections among high-risk students who would otherwise not have associated with one another. Students who have been retained are at increased risk for dropping out of school (Jimerson et al., 2002).

Self-contained classrooms designed for students with emotional or behavioral difficulties and alternative schools or

Placement of deviant teens into groups with other deviant youth is the most common and most costly of all public policy responses to deviant behavior by a child.

classrooms for students who have been suspended or expelled from their regular schools aggregate deviant peers more directly. School leaders may feel that they must segregate these students from their well-behaving peers for safety. However, the best predictor of whether a student will be suspended in the future is whether the student has been suspended in the past (Tobin et al., 1996), and approximately 40% of suspensions are given to repeat offenders (Bowditch, 1993).

Solutions

The best empirical evidence suggests that the first solutions are to eliminate the routine practices of tracking low-performing youth into isolated classrooms, mandatory grade retention, self-contained classrooms for unruly students in special education, group in-school suspension, placement into alternative schools, and expulsion. A number of promising alternatives are available and should be implemented instead. One set of solutions concerns more effective school-wide behavior management policies. Universal, environment-centered programs such as the Good Behavior Game and School-Wide Positive Behavior Support Strategies emphasize effective behavior management practices for the entire school, without creating “pull out” programs for deviant youth, and have been found to be effective in improving the total rate of problem behavior in schools (Ialongo et al., 2001; Sugai & Horner, 2002).

Intervening with teachers through training, incentives, and supports for effective behavior management practices can also reduce problem behavior (Hoglund & Leadbeater, 2004). Using programs such as the Incredible Years Teacher Training Program to train teachers in behavior management practices such as group contingencies, self-management techniques, and differential reinforcement can help teachers to devise plans to manage individual students’ behavior (Webster-Stratton et al., 2004).

Integrating social competence enhancement into school curricula, in programs such as Responding in Peaceful and Positive Ways (RIPP; Farrell et al., 2003) and Providing Alternative Thinking Strategies (PATHS; Greenberg et al., 1995), is also likely to decrease behavior problem rates.

Dyadic coaching programs match one deviant child with one nondeviant peer for cooperative learning or skill development. Programs such as Brain Power (Hudley et al., 1998), the Peer Coping Skills Training Program (Prinz et al., 1994), and the Montreal Longitudinal Project (Vitaro et al., 1999) have yielded favorable outcomes for the deviant youth with no adverse impact on the nondeviant peer.

School-based individual-family interventions have yielded

the strongest and most reliable evidence of effectiveness in reducing deviant behavior. Interventions such as the family-based Adolescent Transitions Program (Dishion et al., 2002), LIFT (Eddy et al., 2000), and the Seattle Social Development Project (Hawkins et al., 1999) involve individual families through multiple components and have proven successful, especially when these programs use behavioral principles.

Deviant Peer Effects and Solutions in Juvenile Justice

Deviant Peer Effects

A variety of evidence based on random-assignment experiments, case studies, and meta-analyses supports the hypothesis that placement with deviant peers in juvenile justice interventions mitigates the otherwise positive impact of interventions and can have adverse effects. Lipsey’s meta-analysis (in Dodge et al., in press) of treatments for delinquency yielded a relative (to individual treatment) decrement in effect size for prevention programs administered to deviant peer groups of 30% (from .10 to .07). Peer-group counseling approaches to prevention were found to be 33% less effective (decrement from .12 to .08) than individual counseling approaches. Thus, about a third of the positive effects of juvenile justice intervention are offset by adverse effects of intervention administered in a deviant peer-group context. Furthermore, 42% of group-administered prevention interventions and 22% of group-administered probation interventions yield net adverse effects. What is not clear is whether these effects are due to the aggregation of deviant youth with each other in a way that allows deviancy training or to some other factor that distinguishes individual from group treatments (e.g., different amount of therapist attention).

Of course, there will be times when the youth’s family cannot provide a safe home, an alternative community placement cannot be found, or public safety demands that a youth be detained in a more restrictive setting. In these cases, a high staffing ratio and a high degree of structure provided by the residential program can minimize harmful effects (Osgood et al., 1996). That is, because deviant peer contagion is most likely to occur when youth have unsupervised opportunities to interact with one another in unstructured settings, residential programs should minimize times when youth are free for recreation in a day room or exercise yard and maximize times that youth are directly supervised by adult staff who organize their activities. In addition, deviant peer contagion is most likely to occur when younger youth are placed with slightly older youth who have committed similar crimes (Bayer et al., 2003). Further, negative outcomes are less likely to occur as a result of short-term placements (e.g., 10-day “holding tanks”) than of long-term

A meta-analysis (or analysis of the evaluations) of juvenile justice interventions reveals that 42% of group-administered prevention interventions and 22% of group-administered probation interventions yield net negative effects.

placements, suggesting that longer prison terms, such as those mandated by three-strikes laws, might do more harm than good (Greenwood et al., 1996).

Although aggregation of deviant youth is not a necessary part of non-residential programs, many non-residential programs take this approach. Probation officers still sometimes hold group sessions with youth on probation to discuss their problems and provide counseling, although more recently community agencies have been contracted to provide these services (Mays & Winfree, 2000). Scared Straight, Guided Group Interaction, and Positive Peer Culture are treatment programs that aggregate delinquent youth who have been found through rigorous analysis to have adverse effects (Empey & Rabow, 1961; Vorrath & Brendtro, 1985). Boot camps and wilderness camps have also been linked to worse behavioral outcomes, especially if the adult leaders are not highly trained or do not provide sufficient supervision (Lipsey & Wilson, 1998).

Solutions

Randomized experiments suggest several promising alternatives that do not rely on incarceration or placement in deviant groups. Family interventions, such as Functional Family Therapy (FFT; Alexander et al., 1998) and Multisystemic Therapy (MST; Henggeler, 1998), that focus on enhancing parents' monitoring of youth and behavioral management through rewards and punishments have been rigorously evaluated and found to have beneficial effects, even cost-beneficial effects. When staying with the biological family is not a safe or viable option for youth, Multi-dimensional Treatment Foster Care (MTFC) has been found to reduce peer contagion, delinquency, and recidivism through training foster parents to set clear rules for acceptable behavior, monitor the youth's activities closely, and prohibit interaction with deviant peer groups (Eddy & Chamberlain, 2000).

More proactive, individual-level programs have also been found to be effective in preventing youth from initiating delinquency altogether. The High/Scope Perry Preschool Project documented success in preventing long-term delinquency through providing enriched preschool programs (Campbell et al., 2002). For youth in elementary school, programs such as the Montreal Longitudinal Project (Vitaro et al., 1999) and Fast Track (which has both group and individual components, Conduct Problems Prevention Research Group, 2002) have also demonstrated success in preventing antisocial behavior.

Deviant Peer Effects and Solutions in Neighborhoods, Housing, and Community Programs

Deviant Peer Effects

Deviant peer effects occur in neighborhoods and commu-

nity programs. Summer camps for behaviorally disturbed youth were once popular, and now nondirective after-school programs targeted toward high-risk youth are growing (Gottfredson et al., 2004), in spite of recent evidence that these programs that aggregate high-risk youth may harm children. A recent report (James-Burdumy et al., 2005) of the 21st Century Community Learning Centers Program revealed that these acclaimed after-school programs, which bring together high-risk youth, actually exert an adverse effect on participants. Over 1,000 children, mostly from low-income and high-risk backgrounds, were randomly assigned to come together for after-school groups or be placed on a waiting list. Those youth who were assigned to the coveted after-school programs displayed *higher* rates of deviant behavior, suspensions, and disciplinary actions than did the control youth. The programs also had a *positive* effect on parental employment and their feelings of safety for their children, which may be the source of their popularity.

A particular concern is that youth who live in neighborhoods with a high concentration of poverty are at risk for committing more crimes than they would commit if they had lived in a more advantaged neighborhood (Sampson et al., 1997). Studies of effects of public housing, housing choice vouchers, and programs that move low income families to areas where there is less concentrated poverty have yielded mixed results (Kling et al., 2005). Economic development programs, such as Enterprise Zones for high-risk neighborhoods, are typically not effective (perhaps because deviant youth remain aggregated) and should be discouraged (Ladd, 1994).

Street gangs are an example of deviant peer groups that appear to flourish in disadvantaged neighborhoods. Several intervention efforts have been implemented by police and community agencies (e.g., the Gang Resistance Education and Training Program, the national Comprehensive Gang Intervention program, the "Safe Futures" program), but these efforts have been found to increase cohesion within the gang and should therefore be avoided (Klein, 1995).

Solutions

Community programs, including after-school programs, are too important to this country to be terminated, nor should they be. They benefit families in tangible ways, but they need to be modified to avoid adverse outcomes for youth. Characteristics of neighborhoods and community programs that can reduce deviant peer contagion are similar to those that reduce deviant peer contagion in education and juvenile justice. That is, structured programs that provide opportunities to learn skills and interact with adults in positive settings (as opposed to programs that simply provide a place for youth to hang out) can reduce

Boot camps and wilderness camps have been linked to poor outcomes, especially if the adult leaders are not highly trained or do not provide sufficient supervision.

time youth would otherwise have to engage in risky activities (Eccles & Barber, 1999) and can foster parents' efforts to monitor their adolescents' activities (Mahoney & Stattin, 2000). As in other domains, the composition of the group is also important. Programs that target only high-risk youth are less advisable than those that are open to all children, in part because peers shape one another's emerging identities during adolescence and a group composed exclusively of high-risk youth may come to define its collective identity in terms of deviance (Barber et al., 2001). Active supervision by adults who can monitor behavior and serve as mentors is also an important feature of successful community programs (Mahoney & Stattin, 2000). Finally, youth who are just beginning to engage in deviant behavior appear to be the most susceptible to negative peer influence, so it is particularly important to avoid grouping these vulnerable adolescents with more deviant peers (Mahoney et al., 2001).

In neighborhood contexts, the Job Corps Program teaches job skills and connects youth with career opportunities, and its benefits suggest that it should be encouraged (Schochet et al., 2000). Increased police monitoring of hot spots of illegal activity has also proven effective (Sherman & Weisburd, 1995). Efforts to disperse gangs that emphasize individual characteristics of members are likely to be more effective than efforts that inadvertently increase gang cohesiveness (Klein, 1995).

The most effective community programs are those that integrate deviant youth with the mainstream of nondeviant peers. Community programs and school-based extracurricular activities that combine high- and low-risk youth such as sports, music clubs, Scouts, and church activities should be encouraged (e.g., Eccles & Barber, 1999).

Factors that Moderate the Adverse Impact of Deviant Peer-Group Placement

Individual Characteristics

Child factors including age, history of problem behavior, and self-regulation ability moderate peer contagion effects, both in group interventions and in the natural environment (Dodge et al., in press). Young adolescents are most susceptible to deviant peer influence. Evidence (Feldman et al., 1983) suggests that iatrogenic effects are most severe for youth who begin the intervention with modest levels of delinquency. That is, aggregation of deviant youth does not add appreciably to negative outcomes for already highly deviant youth, and inclusion of nondeviant youth in a group does not turn those youth into deviant adolescents, but aggregation catalyzes antisocial development among initially moderately deviant youth.

Cultural Norms

Evidence suggests that the cultural norm of promoting deviance is a strong mechanism in deviant peer contagion. Evidence also suggests that group culture may be engineered to optimize the probability of establishing a prosocial cultural norm. One model is the Montessori Program method with young children, which integrates new children into the group gradually. Engineering a prosocial culture is thus a major task for peer-group program leaders, worthy of careful planning.

Leaders, Structure, and Theory of the Intervention

Feldman et al. (1983) identified several factors that mitigate deviant peer group effects. The first factor is therapist experience. During all-deviant peer group sessions, high-risk boys who had been placed with inexperienced therapists became increasingly antisocial over time and fared the most poorly, whereas experienced therapists were able to keep high-risk boys from becoming more antisocial. Second, the theoretical basis for the treatment had a large impact in tempering the adverse effect of all-deviant peer groups. In both nondirective-traditional and minimal interventions administered to all-deviant peer groups, high-risk youth displayed worse behavior problems than did high-risk youth in the highly structured behavioral intervention condition. The authors concluded that the high degree of structure in the behavioral groups dampened any deviant peer contagion effect.

Recommendations

Three sets of recommendations result from this review of the research. The first recommendation is to increase the use of scientific evidence about peer aggregation effects in making decisions about funding of programs for youth. The second recommendation is to identify empirically validated intervention principles that are both cost-effective and do not involve aggregating deviant youth. The final recommendations address ways of minimizing deviant peer contagion in interventions that do involve aggregation of deviant youth.

Improving Evaluation and the Use of Science in Policy Decision-Making

Despite recent advances in intervention science, the existing empirical literature remains woefully underdeveloped with respect to the issue of deviant peer contagion. Because the practice of deviant peer aggregation is typically confounded with other factors, we have very little systematic knowledge about the unique effects of peer aggregation. Schools, juvenile justice, and mental health programs rarely use random assignment and systematic observation procedures to study the risks and benefits

A more thorough and system-encompassing perspective is needed that balances and weighs the perspectives of all of the stakeholders in a youth system.

of aggregate program delivery. Studies that do use random assignment are usually conducted by the program developers; thus it is possible that these studies are biased to focus exclusively on positive intervention effects and to ignore or collect no data on possible harm. To help decision-makers make better decisions, we make the following recommendations:

1) *All real-world social-program interventions, services, and policies should be required to undergo rigorous evaluation, with the explicit goal of examining the impact of peer aggregation.* The best evaluation is through random-assignment experiments. These evaluations should contrast a deviant peer-group aggregation intervention with a very similar intervention administered in an individual context or a group context in which most of the peers are nondeviant. Evaluation should assess the impact on the entire system, including both participants and peers.

2) *Funding for rigorous evaluation should be dramatically increased by requiring that a portion of all program funds be devoted to evaluation of impact.*

3) *Sometimes, natural experiments (e.g., school lotteries, roommate assignment) can be excellent sources of evaluation information.* Scholars should interact with policymakers more closely to identify these opportunities.

4) *Scholars should develop a scientific consensus on the set of variables to be measured in the context of intervention evaluation and should encourage evaluation reports to include these measured variables.* Scientific journals are beginning to require standards for reporting subject attrition, computation of effect sizes, and participant characteristics. A consensus on the key variables to measure and report for intervention studies would enhance our potential to document a range of outcomes for any given intervention or program. These variables should include information about the size and membership of group interventions.

5) *Evaluators should report the range of clinically significant individual responses to interventions, as well as central tendencies.* Reports should include the numbers of children who improved, did not change, and grew worse during the course of intervention and afterward (e.g., Jacobsen & Truax, 1991). Reporting only the average effects masks variability in responses to an intervention. Some interventions, especially those that aggregate deviant youth, might result in average improvement across youth, but serious deterioration for a sub-group of youth. This possibility cannot be evaluated unless individual responses are summarized in scientific reports.

6) *Evaluators should examine the impact of expanding the behavior management repertoire of teachers, counselors, and residential supervisors to address the process and dynamics of deviant peer contagion.* It is plausible that developing adult leadership skills in the management of deviant peer contagion is a key factor in rendering group interventions more effective.

7) *Evaluators should conduct system-wide cost-benefit analyses that clarify the relative costs and benefits to the general public that accrue from interventions and policies that aggregate deviant youth.* Programs that aggregate deviant youth may increase the problem behavior of deviant youth but improve the education and socialization experiences of the majority of nondeviant youth in the community. These trade-offs should be made explicit.

8) *Public policy decisions about programs for youth should be made with input from a team of stakeholders that includes evaluators, ethicists, representatives of program participants, representatives of nondeviant youth, taxpayers, and community leaders.*

Alternatives to Aggregating Deviant Youth

The second recommendation is to encourage the implementation of empirically-supported alternatives to aggregating deviant youth. Some of these programs are listed in Table 3.

1) *Mental health.* Treatment programs that have repeatedly been shown to reduce emotional and behavior problems in children and adolescents are those that are family-centered and directed to individual children, such as multi-systemic therapy.

2) *Education.* Strategies that emphasize the behavior management practices of the entire school, without creating “pull-out” aggregate schools or programs for deviant youth, are effective in improving the total rate of problem behavior in schools. Supporting behaviorally based classroom management practices of teachers, especially for the more disruptive youth, reduces problem behavior and prevents escalations to other forms. Integrating children’s social skill-development interventions within the school environment is effective in reducing disruptive behavior and preventing future problem behavior. Finally, for high-risk youth, linking family-centered interventions with school staff efforts to manage and teach children is effective for both short- and long-term outcomes.

3) *Juvenile justice.* Strategies that address parenting practices, increase collaboration between parents and juvenile court workers, and avoid out-of-home placement are effective. When out-of-home placement is inevitable, individual multi-dimensional treatment foster care is a viable alternative and has been shown to reduce deviant peer contagion, delinquent offending, and recidivism.

4) *Community organization and programs.* Community efforts to reduce marginalization of specific groups of families and youth are likely to reduce the formation of gangs and peer groups that amplify deviance. Providing opportunities for low-resource families to “move into opportunities” is a promising community strategy. Community programs should serve both high-risk and low-risk youth in fully integrated settings. Community-organization strategies need to be accompanied by a long-term commitment to evaluate the impact of community

change on youth problem behavior, using systematic monitoring strategies.

Support Harm Reduction by Implementing Empirically Validated Intervention Principles to Mitigate the Adverse Impact of Deviant Peer Aggregation

It is recognized that in many circumstances deviant youth will continue to be segregated from the mainstream and aggregated with each other in isolated settings because the public supports this practice. The harm in these policies can be reduced by adopting empirically based strategies and policies.

1) *Modestly deviant young adolescents should not be aggregated in groups.* Early adolescents who have begun a path toward deviant behavior but are only modestly deviant are most vulnerable to peer influence and should not be aggregated with more deviant, older youth.

2) *Amount of time in a group should be minimized.* The effects of placement in a group with deviant peers follow a dose-response relation. The amount of time that a youth spends in a setting with more deviant peers should be minimized.

3) *Opportunities for unstructured interaction with deviant peers should be minimized.* When deviant youth are placed together, they should not be allowed to interact freely or without structure, supervision, or monitoring by trained adults. For outpatient interventions, care should be taken to minimize interaction before and after group sessions.

4) *Program directors should create and maintain a prosocial peer culture.* Empirically based strategies include minimizing the ratio of deviant to nondeviant youth in a group, maximizing the ratio of adult leaders to youth, and infusing an already-prosocial group with new deviant members only gradually and only while maintaining the positive peer culture.

5) *Group settings should be highly structured and led by well-trained adult leaders.* Training of adult leaders makes a difference. Supervision of these leaders, including on-site observation, is essential. Behavioral principles are most effective, and nondirective open discussions among groups of deviant youth should be avoided.

Conclusions and Implications

Given that society's general response to problem behavior

in youth is to segregate them in groups, it is necessary to attend to the risk of peer contagion but also to remain cautious about dismantling the current system in favor of sweeping policy change. Although the individual youth themselves may not benefit from placements with deviant peers, it is plausible that youth remaining in the community (e.g., a public school) benefit from their removal. Most individual decisions regarding placement of a deviant youth have a decidedly and understandably myopic perspective. That is, parents of a deviant child want the best outcome for their child, whereas parents of nondeviant peers want their children protected from deviant youth. Elected judges are most responsive to public politics, whereas advocacy groups lobby on behalf of the interests of their constituencies. Agency directors are most attentive to cost containment and short-term outcomes. Individual parents must certainly advocate for their child, but public officials should be encouraged by the use of incentives to think more broadly at the system level. What is needed is a system-encompassing perspective that weighs the perspectives of all stakeholders in a youth system, such as the one offered by Cook and Ludwig (in Dodge et al., in press). Unfortunately, very little research has been completed at the system level, and so public policy decision makers are left to their own weighting schemes.

In many respects, the entire conceptualization of interventions, policies, and services needs reform. Rather than a medical model of youth illness and after-the-fact treatment of youth deviance or a moral model that justifies retribution toward deviant youth, a new model that emphasizes the cultural and developmental context of deviant behavior may be more appropriate. This new model will rely on education and socialization of all children, every day from birth through adulthood. More appropriate analogies than medical care may be preventive dentistry and education. Thus, interventions that are effective for reducing deviant peer contagion and improving outcomes are likely to be long-term strategies that follow youth through development in the context of normative institutions.

It is clear from this report that simple good intentions to benefit youth are not sufficient. We have learned, once again, the necessity of scientific rigor in studying the impact of interventions, addressing the complexity of possible outcomes, and understanding the dynamics of human behavior.

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