SCHOOL-BASED PREVENTION PROGRAMS
Lessons for Child Victimization Prevention

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Summary

Evaluations of school-based prevention programs on a wide variety of topics — drug abuse, sex education, traffic safety, dental health, mental health, driver education, suicide, school failure — suggest that certain features are associated with **more effective programs**:

+ a coherent theoretical basis
+ active, systematic and specific skills training
+ multiple program components, like classroom training combined with parent involvement
+ interactive instructional techniques
+ individualized instruction and lower teacher-child ratios
+ full program implementation
+ more intensive programs, perhaps surpassing 20 hours of exposure that is repeated over a multiple year period

Certain other kinds of programs have generally been shown to be **ineffective**:

+ teaching, lectures and presentations targeted simply at increasing knowledge
+ the use of fear tactics
+ efforts to change attitudes alone
+ generalized approaches such as affective education

Many **types of presenters** have been shown to be effective, but more experienced presenters do better in some domains.

Programs targeting younger children tend to be more effective in domains where it is important to intervene before negative behaviors and norms get established (e.g, smoking and sexual activity). In no domain has research suggested that immaturity or lack of comprehension is a barrier to effectiveness with younger children.

Programs have sometimes been shown to be differentially effective with one gender, especially in domains (like sexual behavior and suicide) where the problem dynamics differ by gender. This suggests the possible appropriateness of tailoring program content according to gender.

Introduction

Programs to help school-aged children to avoid becoming the victims of abuse, violence and abduction (victimization prevention programs - VPPs) have proliferated in recent years. Presented to children in schools or other group environments, they try to teach children to recognize interpersonal dangers, say no or get away from would be attackers or abusers and tell someone about it. These programs now join a lengthy list of other school based prevention efforts that have been implemented over the years, targeted at a variety of other problems from drug abuse to teen-age pregnancy to suicide, obesity and automobile safety.

Many of these other initiatives share important similarities with the victimization prevention efforts. Most address issues that fall beyond the conventional school curriculum. Many involve topics of a sensitive or embarrassing nature, such as illegal drug use, suicide or sexual behavior. Many require students to learn resistance skills, such as refusing offers of drug or tobacco use, pressure to engage in intercourse or temptations to eat sweet or fatty foods.

But in addition, many of these other initiatives have been exposed to more complete and extensive scientific evaluation than has victimization prevention, whose track record is still rather new. This paper provides a brief overview of some of the important conclusions from these other fields that might be useful for those trying to design and evaluate victimization prevent efforts.

We conducted this review by consulting the literature in the following domains: traffic safety and injury prevention, including driver education; drug, alcohol and tobacco usage; suicide prevention; delinquency prevention; health promotion, including heart health and dental hygiene; mental health promotion; school failure prevention; violence prevention; and sex education. We focused our search on scholarly review articles summarizing the formal evaluation studies, supplemented in some cases by examining certain important studies. We tried to obtain the most recent reviews, and in 7 of 9 domains found articles published since 1990. As much as possible, we have tried to constrain our conclusions to programs that had school-based prevention as their central or one of their most important components.

Overview

Clear successes have been demonstrated in some program domains, but in others the results are more ambiguous or discouraging

Successes

PREVENTION OF SCHOOL FAILURE:

Programs to prevent school failure have demonstrated improvements in a wide range of real-world outcomes -- grades, standard test scores, referrals to special education, and grade retention -- especially following preschool intervention. Some of these gains are maintained for many years and generalize to other areas of functioning (Slavin, Karweit, & Wasik, 1993).

MENTAL HEALTH:

Programs have demonstrated a decrease in mental health problems and an increase in competencies even with preschoolers and there is evidence of at least short term retention of gains (Durlak & Wells, 1997).

TRAFFIC SAFETY AND INJURY PREVENTION:

Programs have demonstrated an increase in safety-promoting behaviors in domains of pedestrian habits, latchkey children, emergency phone calling, bicycle helmet use, and home injury (Durlak, 1997b).

SUBSTANCE ABUSE:

Enduring, multi-component programs, especially those targeting tobacco use, have reported effectiveness. However, the most widely disseminated program, Drug Abuse Resistance Education (DARE), has produced inconsistent findings at best (Dusenbury, Falco, & Lake, 1997).

HEALTH PROMOTION:

Health programs report successes for some heart health and obesity programs, especially those including environmental interventions such as parent involvement and changes in the school environment (Wolf, Cohen, & Rosenfeld, 1985).

Ambiguous or Discouraging Results

SEX EDUCATION:

Some sex education studies report delay of intercourse and increased use of contraceptives, but little can be said conclusively about their effectiveness on pregnancy prevention (Christopher, 1995). It is true that teen pregnancy rates have begun to decline dramatically in recent years.

DELINQUENCY:

Programs directly targeting delinquency have not been very effective in general. The most promising approaches appear to be early academic intervention (Mulvey, Arthur, & Reppucci, 1993).

DRIVER EDUCATION:

There have been clearcut disappointments in driver education, in part because it results in an increased licensure of 16 - 17 year old, the group with the highest rate of accidents per mile driven, without reducing their crash rates (Robertson, 1983).

SUICIDE PREVENTION:

Suicide programs, although not extensively evaluated, have failed to show effectiveness and in some cases have reported negative outcomes such as increased hopeless and willingness to consider suicide a possible solution (Mazza, 1997).

DENTAL HEALTH:

Any gains from dental health programs have appeared to be of small practical significance and transitory. Thus public health officials recommend fluoridation as the primary childhood prevention approach.

VIOLENCE:

This is a new prevention domain, but early evaluations have not confirmed clearcut reductions in violent behavior (Coben, Weiss, Mulvey, & Dearwater, 1994).

The differential results among these various domains may stem from many factors, such as the inherent difficulty and complexity of the problems, the design of the prevention programs, and the historical era when the programs were evaluated. We are not able to do a comparative analysis of domains. We can report from within the domains about what kinds of approaches proved to be ineffective or effective

Ineffective Approaches

Certain approaches have had particularly poor track records in getting children to change actual behavior:

- ***teaching, lectures and presentation targeted simply at increasing knowledge***
- ***use of fear tactics***
- ***efforts to change attitudes alone***
- ***generalized approaches such as affective education***

Each prevention domain has tended to make the same initial assumption: that increasing knowledge would result in people making better choices, an assumption repeatedly proven false (Durlak, 1995). Education alone about what one should do does not change behavior. This finding has been reiterated in reviews from numerous domains: substance abuset (Gorman, 1995); health, especially dental health which has relied heavily on this approach; traffic and injury safety (Pless & Aresenault, 1987); sex education; mental health (Kazdin, 1993); and suicide, for which this had been the typical program (Mazza, 1997). Also ineffective have been didactic approaches that employed fear tactics -- scaring them about consequenes of drug use (Durlak, 1997a) -- or just tried to change attitudes -- for example, about smoking. Affective education by itself,

targeting primarily psychological factors such as self-esteem, was ineffective in sex education and substance abuse programs, with Botvin and Botvin (1992) concluding that attempts to target psychological factors without emphasizing skills training are insufficient. Affective education had mixed effectiveness in mental health, but higher quality studies tended to produce negative results (Strein, 1988).

VPPs also began with such approaches, commonly without evidence of resultant behavior change.

More Effective Approaches

More effective programs have tended to have these features:

- coherent theoretical basis
- active systematic specific skills training
- multiple components, like classroom combined with parent involvement

Theoretical basis

Two kinds of theories have proved useful : Theories that address protective factors as well as risk factors, and theories that explain behavior change. Programs have proved more successful as theory has prompted programs to broaden their efforts from just reducing risk factors to also fostering protective ones (Dusenbury & Falco, 1995). The behavior change theory most often cited in effective programs is social learning theory (Kirby, 1992). This theory proposes that behavior change results from 1) the observation of a model's behavior and the reinforcements or punishments received, 2) active rehearsal of the desired behavior, and 3) consistent feedback about and reinforcement of the desired behavior. ***The actual modeling and rehearsal may be essential to learning the skills in contrast to just being taught (Kirby, 1992).***

Skills training

More effective programs utilized active systematic skills training to obtain behavior change. These programs have been in the following domains: obesity prevention (Wolf, Cohen, & Rosenfeld, 1985); mental health (Durlak & Wells, 1997); latchkey safety (Roberts, Fanurik, & Layfield, 1987); sex education and substance abuse(Durlak, 1997b). More promising VPPs have also utilized skills training (Wurtele, Kast, & Melzer, 1992). Substance abuse programs have used two general types of skills training: resistance skills training (RST), which includes refusal and assertiveness skills, and life skills training (LST), which has obtained and maintained the largest gains (Botvin & Botvin, 1992; Dryfoos, 1990), and is a more intense program, supplementing resistance skills training with more generalized skills training to facilitate development of personal and social competence, including skills to promote decision making, coping, communication, and self-esteem (Botvin & Botvin, 1992). Skills behavioral training may be more effective when it focuses on rehearsing clear and specific skills, such as how to respond to your dating partner in a specific situation rather than only rehearsing communication skills in general (Kirby, Short, Collins, Rugg, Kolbe, Howard, Miller, Sonenstein, & Zabin, 1994). The

benefits of skills training were further enhanced in drug prevention when potential hindrances to implementing new behaviors (for example, feeling left out) were proactively addressed (Botvin & Botvin, 1992). Several domains have also reported behavior gains following the use of social skills training (SST) programs, which promote effective peer interactions through methods such as perspective taking (Beelman, Pfingsten, & Losel, 1994) and interpersonal cognitive problem solving (ICPS) skills, which include identifying alternative solutions, means to the solutions, and consequences (Denham & Almeida, 1987).

Multiple components

Multicomponent programs seem to be more effective by providing environmental support for more consistent and lasting behavior change. Such programs consist of classroom education combined with additional interventions that target potentially influential parts of the environment such as family, peers, and the community. The use of multiple components has been found to be effective in several domains and has even shown some promising indications in areas with otherwise limited effectiveness, such as teen pregnancy (Christopher, 1995). The effectiveness of a multicomponent approach is thought to be due to the targeting of multiple risk factors or risk factors at multiple levels simultaneously, which can provide environmental support for behavior change (Durlak, 1995; Kelly, 1995). A clearcut example of environmental support from diet and obesity studies is when changes are made in the school food services and physical education classes (Durlak, 1997b). Multicomponent programs do raise questions, though, about which component(s) contribute(s) to the reported gains, and how much the gains are due to greater program intensity rather than the multiple level of components.

Community components are effective when they promote greater community involvement and ownership, help shape the social norms, and address the perceived needs of the community. Community components that have been combined with a classroom program to form successful interventions include: support and active involvement by community leaders and agencies, coalitions between officials and citizens to identify and plan for meeting needs, screening programs, community education programs, and exhibits in public places such as libraries and pharmacies (Durlak, 1997a; Durlak, 1997b). Substance abuse programs report improvements in cigarette, alcohol, and marijuana use at three years following involvement by community leaders and social agencies and media components (Durlak, 1997a) and the rate of new adolescent smokers was reduced by 28% even at eight years following a program with screening, education, and media components (Durlak, 1997b). Safety programs report at least 30% more bicycle helmet use in two years following a program with health department, media, and business incentive components and at least 20% less home injuries in 3 years with a program involving coalitions between health officials and citizens (Durlak, 1997b).

Parent involvement and parental support have been cited by a number of domains as part of effective multicomponent programs. Parent involvement and parental support, which may include social network building, parenting training, and assistance in accessing needed services, have been a part of successful long-term academic interventions with both preschoolers and elementary school students (Durlak, 1997b; Zigler, Taussig, & Black, 1992). They have also worked in effective delinquency, bullying prevention, and weight loss programs (Prue, Wynder,

Scharf, & Resnicow, 1987; Tolan & Guerra, 1994). ***Children appear to benefit as parents become better parents*** (Durlak, 1995).

Parent involvement, while beneficial, is often difficult to obtain. In particular, attendance at school or community meetings are reportedly the least appealing to parents (Durlak, 1995). In contrast, parents did attend meetings about burn and gang prevention when meetings were small and hosted by a neighbor. Participation may also be more likely when children receive a reward contingent on parent participation, as reported in a seat belt use program (Roberts, Fanurik, & Layfield, 1987). Also, a heart health program rewarding children in school for the work they did at home with their parents over a 5 week period, reported parent participation rates of 77% or better.

Multicomponent programs have also employed incentives, legislation, media, and clinics. Incentives have been effectively used in safety prevention, including selling bicycle helmets at reduced prices and offering stickers and raffle tickets for pizza when both child and parent are seat belted upon arrival at school (Roberts, Fanurik, & Layfield, 1987). Helmet use increased over the years and both children and parents used seat belts more. The seat belt programs reported some decay in gains after removal of the incentives. Bicycle helmet use also increased following related legislation (Durlak, 1997b). A media component including posters and television ads for injury prevention (Pless & Aresenault, 1987) and for smoking prevention were associated with improvements. Greater benefits were reported for drug prevention when a media campaign saturated the market with advertisements (Durlak, 1997b).

Mode of Presentation

Program effectiveness has been associated with:

- ***Interactive instructional techniques***
- ***Individualized instruction and lower teacher-child ratios***
- ***Full program implementation***

Teaching approaches with greater student interaction, such as role playing, discussions and small group activities, rather than a more traditional teaching approach, may promote behavioral changes. Using these more interactive teaching techniques, drug prevention programs otherwise similar to DARE reported 2-3 times more improvement on social skills and drug use (Ennett, Tobler, Ringwalt, & Flewelling, 1994). A similar result was reported for drinking and driving programs (Tobler, 1994, -- cited in (Dusenbury & Falco, 1995)). Another technique, dialoguing, in which teachers talk individual children through the steps of new skills when they are faced by an actual problem, may contribute to improved behavioral outcomes. Individualized instruction, attention, or lower student-teacher ratios may also enhance behavioral gains, as has been reported by studies in dental health (Brown, 1994), sex education (Pierre & Cox, 1997), and Social Skills Training (Chandler, Lubeck, & Fowler, 1992; Schneider, 1992). Low teacher to child ratio is also recommended in academic interventions (Durlak, 1997b).

The level of program implementation by teachers in many cases is inadequate (Durlak, 1995). Several findings indicate htat more than half to three-quarters of teachers do not implement programs effectively, leaving out parts such as parental involvement. ***When substance abuse and health programs were not properly implemented, outcomes were worse than when programs were properly implemented.***

Identity of Presenter

Many types of presenters have been shown to be effective, but more experienced presenters do better in some areas.

Many types of presenters have been effective, including: teachers, paraprofessional aides, parents and peers for tutoring (Durlak, 1997a; Kohler & Strain, 1990); peer leaders, teachers, and research staff for drug prevention; and trained high school peer educators and teachers for sex education (Kirby, 1992). ***Direct comparisons indicate that a higher level of training related to the domain of interest may improve presenter effectiveness***. Tutoring by certified teachers produced larger and more lasting gains than paraprofessionals in three studies (Slavin, Karweit, & Wasik, 1993). More experienced trainers were more effective in problem solving and conflict resolution programs (Denham & Almeida, 1987; Johnson & Johnson, 1996). Mental health workers were more effective than teachers, peer leaders, and health education specialists for drug prevention (Tobler, 1992). Experience and training differences, however, were not always apparent. There was little difference between teachers and counselors for affective education (although there was a strong relationship between presenter and program type) (Strein, 1988), health specialists and specially trained teachers were equally effective in a heart health program, and self-instructed children did better than teacher instructed ones in another heart health program (Iammarino, Weinberg, & Holcomb, 1980).

Proper training for presenters, with monitoring, support, reinforcement, and clear demonstrations of what is to be taught, appears important. This is based on findings that a program's longevity is impacted by the type and amount of help received by the presenters during the program (Durlak, 1995). Adequate training to accustom presenters to discussing sensitive subjects may also be of particular importance when teaching victimization prevention. An evaluation of an AIDS program reported that students were aware when teachers were embarrassed about content, which left students feeling distrustful of the teacher and less inclined to speak openly (Lupton & Tulloch, 1996).

Program Intensity

More intensive programs, with some exceptions, show better results.

There is a wide range in the reported program length in different domains of school-based prevention. They range from less than two hours for most suicide programs (Mazza, 1997), half hour to 30 hours for AIDS programs (Kim, Stanton, Li, Dickerson, & Galbraith, 1997), while

some programs span years, including heart health (Durlak, 1997b), bicycle helmet use (Mann & et.al., 1986), and many early academic interventions (Slavin, Karweit, & Wasik, 1993). ***In most domains, longer programs are more effective in terms of larger and/or more enduring behavioral results***. Chandler, Lubeck, and Fowler (1992) report the best Social Skills Training programs for preschoolers are twice as long as poorer ones. Programs with some effectiveness on pregnancy rates are longer (Kirby et al., 1994) and AIDS programs that result in increased condom use or decreased number of partners were found to be 2-3 times longer than those without such changes (Kim, Stanton, Li, Dickerson, & Galbraith, 1997). A longer exposure to preschool and elementary school academic interventions is one factor resulting in greater results, including retention, a finding duplicated in other countries (Durlak, 1997b). In addition to academic interventions (Durlak, 1997b) bicycle helmet programs (Mann & et.al., 1986) and heart health programs (Durlak, 1997b) found that programs should span two years rather than one.

There may be a threshold of hours for results to be observed. Some heart health studies do not indicate gains until at least 20 hours, while greater gains occur after at least 50 hours (Durlak, 1997b). Similarly, ICPS skills seem learned better after 40 sessions (Denham & Almeida, 1987). Delinquency and substance abuse studies recommend programs that exceed one year (Glynn, 1994; Zigler, Taussig, & Black, 1992), and Durlak (1995) concludes that for drug prevention, persistence in terms of years and boosters is important. Booster programs are also particularly recommended when the skill to be learned is not used frequently, such as fire drills, in contrast to buckling one's seat belt or safely crossing the street (Durlak, 1997b). This could also apply to VPP, which involve prevention skills children would not be called upon to routinely use.

Program Timing

Programs targeting younger children tend to be more effective in domains where it is important to intervene before negative behaviors and norms get established (e.g. smoking, sexual activity)

While little about the optimal age for intervention is known, ***the overall consensus is to start early, before evidence of the problem appears, so that behaviors can be learned without having to first unlearn negative patterns, and before the peer group can convey contrary social norms***. Children of every school level have been targeted by at least some prevention domains addressed in this paper. Academic, mental health and safety interventions, as well Social Skills Training have targeted even preschoolers, while drug, sex education, and suicide interventions are primarily targeted at middle school and high school. A comparison of academic interventions found that a more intense preschool intervention is more effective than an early elementary school program in terms of reading and math skills, grades, special education referrals, and grade retention (Slavin, Karweit, & Wasik, 1993). It is also suggested that Head Start's lack of effectiveness when it was first introduced, relative to some other preschool programs, was in part because it was not introduced early enough (Durlak, 1997b). Recommendations for conflict resolution are also to start with young children, between 4 and 9 years old, before aggressive

patterns have formed (Webster, 1993).

Recommendations for drug programs are to start no later than the transition from elementary to middle school, before children might begin experimenting (Glynn, 1994), and for sex education to begin before intercourse is initiated, even as early as early elementary school (Sanderson & Wilson, 1991). A multicomponent sex education program that included a clinic reported greater impact on middle school than high school students, a finding consistent with other studies (Kirby, 1992). In contrast, a comparison of drug evaluations found larger effect sizes for high school rather than middle school students (Bruvold, 1993). ***For both domains, it is important to intervene before perceived peer norms become a contrary factor***. Sex education programs may be more effective with virgins, both in delaying intercourse and subsequent contraceptive use (Kirby et al., 1994). *For victimization prevention (VP), while countering social norms is not an issue, preventing revictimization of those who have already been victimized may require first unlearning behaviors. To intervene before many victimizations occur would point toward intervening at an early age.*

Age

In no domain has research suggested that immaturity or lack of comprehension is a barrier to effectiveness with younger children

Preschoolers have benefited from academic, mental health, social and problem solving skills, and emergency phone calling skills programs. Most domains had at least a few students that looked for age differences, and the ***most common finding is that younger subjects, sometimes preschoolers, showed greater gains than older subjects***. Within mental health interventions, affective education and interpersonal problem solving were most effective with the youngest children (2-7 year olds) (Durlak & Wells, 1997). In Social Skills Training, while all ages had significant gains, 3-5 year olds did significantly better overall and also made the greatest gains for social cognitive skills (such as social problem solving skills and perspective taking) (Beelman, Pfingsten, & Losel, 1994). Three to eight year old children also benefited more from monomodal programs, suggesting that multimodal programs may be too complex for young children. The appropriate age to introduce VPP has been a question raised by several researchers, in particular its appropriateness for preschoolers (Berrick & Gilbert, 1991). Preschool victimization prevention programs with active skill training have occasionally had gains comparable to those found in other prevention domains (Kraizer, Witte, & Fryer, 1989).

Gender Differences

Programs have sometimes been shown to be differentially effective with one gender, especially in domains (like sexual behavior and suicide) where the problem dynamics differ by gender.

Of the few evaluations assessing for potential gender differences, there were mixed trends in sex education and more favorable results for girls in suicide prevention. Potential trends in sex

education include girls doing better on knowledge, attitudes or values (Brooks-Gunn & Paikoff, 1993) and more often reporting increases in contraceptive use (4 of 6 studies), while boys do better in continued postponement of intercourse (3 of 4 studies) (Christopher, 1995; Kirby et al., 1994). In suicide prevention, for which boys are considered more at risk (Garland & Zigler, 1993; Mazza, 1997), girls were more likely to benefit. They rated the programs more favorably, had some small knowledge increases, and they changed positively regarding hope/hopelessness and coping responses, while boys changed negatively. Tailoring suicide programs according to gender has been recommended, especially considering the gender related differences regarding suicide. There was no clear pattern of gender differences reported in the limited findings for drug prevention, health education, mental health programs, or conflict resolution training.

VPP also deals with a subject for which reported statistics differ by gender, with girls more often the reported victims. Also, as with suicide prevention programs, girls have been reported to regard victimization prevention programs more favorably than boys (Finkelhor & Dziuba-Leatherman, 1995). Little theory has been developed, however, about whether or how to educate boys and girls differently on this topic.

Ethnicity and Social Class

The evaluation literature gives little guidance about whether program effectiveness differs in a general way by ethnicity and SES.

Only a few reviews reported any studies that assessed whether any outcome differences were due to racial, ethnic or class differences, revealing no consistent pattern of findings.

Risk Status

Programs in some domains are more effective for higher risk children, but less effective for those who may have already engaged in the problematic behavior.

Those at higher risk benefited more in a pedestrian injury prevention study (Pless & Aresenault, 1987) and in an elementary school academic intervention (Durlak, 1997b). Risk status based on whether children exhibited social problems predicted greater gains from an ICPS program (Denham & Almeida, 1987). Similarly, socially deprived children (Beelman, Pfingsten, & Losel, 1994) and withdrawn children, but not aggressive children (Chandler, Lubeck, & Fowler, 1992) had greater gains from Social Skills Training programs. In contrast, prior suicide attempters benefited less from suicide prevention programs (Mazza, 1997). Reduced effectiveness for those already participating in the undesired behavior was also found in some sex education programs, with programs seeking to delay intercourse more effective for virgins.

Unanticipated Program Outcomes

Negative or paradoxical outcomes are rare but have been noted.

Findings on unanticipated outcomes are based on a limited number of evaluations. Some studies do actually on occasion report increases in the behavior to be prevented. Most of these reports of paradoxical effects are from driver education and suicide programs, domains which have lacked positive effects. Studies reporting increases in behaviors to be prevented include: 9 of 177 mental health studies with small negative effect sizes (Durlak & Wells, 1997); 2 drug programs with higher rates of drug use by the treatment group (Dusenbury, Falco, & Lake, 1997; Gorman, 1995); a sex education study with a treatment group less likely to use contraceptives than those in the control group (Kirby, 1992); and a peer group delinquency program which increased tardiness and self-reported delinquency behaviors and decreased attachment to parents (Gottfredson, 1987). Driver education has resulted in the increased licensure of 16 and 17 year old drivers, the age group with the highest crash rate per mile driven (Robertson, 1983). Two drinking and driving programs reported negative effects on attitudes and on drinking frequency (Mann & et.al., 1986). Out of the small number (11) of suicide program evaluations, almost 1/3 report negative outcomes (Garland & Zigler, 1993; Mazza, 1997). These include a small, significant increase in the number of students who came to regard suicide as a viable option to problems, and who experienced their problems as worse after the program. Boys reported increased hopelessness and maladaptive coping, and prior suicide attempters reported negative program reactions.

Unexpected positive effects have also been reported, particularly in academic interventions, and especially from the Perry Preschool study. At follow-ups, when participants were 19 and then 27 years old, benefits in addition to academic gains were improved rates of arrest, delinquency, teen pregnancy, welfare, and employment (although not as good as general population rates). Improvements are also reported for peer tutoring in attitudes toward school, peer relationships, self-concept, and disruptive behaviors (e.g. Durlak, 1997b) . This has prompted some prevention programs in other domains to add an academic component to boost the range of effectiveness.

While evaluations in the reviewed domains rarely test for negative program side effects, perhaps reflective of the relative lack of controversy associated with most, such testing has been much more frequent in VPPs, especially since concerns were raised about unnecessary increases in anxiety (Reppucci & Haugaard, 1989). Testing for fear and anxiety, one of the more frequent measures following VPPs, is not addressed at all in these other domains, although one might expect the concern would apply, in particular with subjects that raise the issue of dying, such as suicide and HIV/AIDS prevention.

Conclusion

The good news for victimization prevention programs is that prevention education has been successful in other domains and particularly domains that try to teach some conceptually similar resistance skills.

The challenge is that most victimization prevention programs available to date lack the intensity, multi-year continuity, and fully implemented multilevel components that have characterized the successful programs in other domains.

This review of other prevention efforts targeted at school age children has both encouraging and sobering implications for victimization prevention. The encouraging news is that prevention has seemed to work in a number of domains, like substance abuse, that are not that conceptually different from the goals and structure of victimization prevention. The sobering news, however, is that the kinds of prevention programs that have established their efficacy in these other domains seem to be generally of much a more intensive and comprehensive nature than what is typical for child victimization prevention. The effective programs in the domains reviewed here have most often included curricula that entailed intensive exposure over the course of a year, continuations of the efforts over the course of several years, and the involvement of other community institutions beyond the schools (families and media in particular). This contrasts with many victimization prevention curricula which tend to be modest curricular additions — a few sessions — with some limited and often unmonitored attempts at gaining family involvement. It may be that for true success in protecting children, programs will have to be substantially enlarged.

The review clearly suggests that VPPs that rely on didactic approaches and that do not have specific skill rehearsal and practice components (as many of them do) are unlikely to be successful. The review also points to the importance of VPPs possibly increasing their theoretical depth and including enhanced social and resistance skills training. Other suggestions from the review include more efforts to individualize instruction, to insure full program implementation, to guarantee that program presenters are well-trained, experienced and adequately supported and to tailor programs differently for boys and girls.

However, before accepting the broad and sobering implications of this conclusion, two important cautions are needed.

Caution 1: It may not necessarily require comprehensive and intensive programming to promote disclosures.

One of the important goals of victimization prevention training is to promote disclosures. In principle, this is a much easier task than preventing victimization itself. None of the other prevention domains reviewed here have a parallel goal that has been subject to evaluation. It may well be that the promotion of disclosures does not require the kind of intensive programming suggested from the other domains and that most of the conclusions of this review do not apply to

that particular goal. If modest intensity VPPs achieve this goal, they may be justified whether or not they prevent victimization.

Caution 2: It may not necessarily require comprehensive and intensive programming to deter certain kinds of child offenders.

Although the intent of most victimization prevention program is to affect the behavior of potential victims, the programs have potential effects on offenders as well, those in the child's family, social network or school. With their emphasis on disclosure, these programs may possibly serve to deter some of the offenders. This is not a dynamic that has a clear parallel in the other domains reviewed here, and we can conclude little about it. It points to the need to evaluate not just whether VPPs change children's behavior but also whether they ultimately reduce victimization rates.

We do believe that this review clearly establishes that those with an interest in victimization prevention should familiarize themselves with other school-based prevention efforts, try to stay aware of the developments and evaluation in these other fields and perhaps work collaboratively with educators from these domains to help craft approaches that might truly succeed in making children healthier and safer.

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