
Family-Strengthening Approaches for the Prevention of Youth Problem Behaviors

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Effective parenting is the most powerful way to reduce adolescent problem behaviors. Dissemination of research-based family interventions has been slow, with most practitioners still implementing ineffective programs. This article reviews 2 federal studies that involved national searches for effective family interventions targeting pre-birth to adolescence: Preventing Substance Abuse Among Children and Adolescents: Family-Centered Approaches (Center for Substance Abuse Prevention, 1998) and Strengthening America's Families (R. Alvarado, K. L. Kumpfer, K. Kendall, S. Beesley, & C. Lee-Cavaness, 2000). Results identified 3 effective prevention approaches, 13 principles of effectiveness, and 35 programs. Recommendations include increased dissemination research on training and technical assistance systems, adoption with fidelity and quality, and gender-, age-, and culturally sensitive adaptations.

Strong families and effective parents are critical to the prevention of youth problems. Family and youth problems are unacceptably high; yet parents are spending less time parenting and more time working—240 more hours per year or 4.6 hours more per week than in 1989. With fewer parental supports from a second parent or extended family, parents need more than ever to know how to effectively parent their children. The critical role of the family is acknowledged in virtually every psychological theory of child development; however, many parents have given up parenting. They have heard they have little influence compared with peer and media influences. However, longitudinal research suggests parents have a larger impact on adolescent health behaviors than previously thought (Resnick et al., 1997). Although peer influence is the major reason youth initiate negative behaviors, a special analysis we conducted of the Monitoring the Future data (Johnson, O'Malley, & Bachman, 2001) found that concern about parent disapproval of alcohol and drug use is the primary reason not to use. The importance of the suppression effect of parental disapproval as a reason not to use does not decrease as youth mature from the 8th to 12th grades. For example, even by the 12th grade, boys report perceived parental disapproval as the number one reason not to use marijuana. Tested causal models (Ary et al., 1999; Center for Substance Abuse Prevention [CSAP], 2000; Kumpfer & Turner, 1990–1991) find that a positive family environment (e.g., positive parent–child relation-

ships, parental supervision and consistent discipline, and communication of family values) is the major reason youth do not engage in delinquent or unhealthy behaviors. These protective family factors are even stronger predictors for minority youth and girls (Center for Substance Abuse Prevention, 2000).

Focus and Content of This Review

Despite their best intentions, parents have limited opportunities to learn to be more effective parents because of the lack of adoption of science-based parenting programs by community agencies. In the past 20 years, prevention researchers have developed and tested a number of effective parenting and family interventions; however, only about 10% of practitioners are implementing these family-strengthening programs and only about 25% are implementing these with fidelity (Kumpfer, 2002). Recent comprehensive literature reviews of effective family-based prevention programs have identified many effective programs (Biglan & Taylor, 2000; Kumpfer, 2002; Kumpfer & Alder, 2003; Taylor & Biglan, 1998; Webster-Stratton & Taylor, 2001). This article does not attempt to be another comprehensive review of specific effective programs but aims to summarize two federal studies to determine if there is enough evidence to say a particular family-focused approach works. Principles of effective family-focused programs are also presented briefly to improve dissemination and adoption of evidence-based programs and practices.

Different criteria have been used to identify “effective” approaches. In addition, many different terms (e.g., evidence-based, science-based, research-based, empirically supported, best practices, exemplary, model, or promising

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programs) are used to refer to effective programs or approaches meeting a high level of evidence of effectiveness. The field could profit from agreement on terms and standards. Criteria or standards are proposed for considering an approach (i.e., a type of intervention) or an individual program as effective.

Two federal efforts to identify and disseminate effective parenting and family programs are summarized as well as research and practice recommendations. The major challenge now is getting practitioners to adopt and implement these family programs with fidelity and effectiveness. Collaborations of researchers, practitioners, and policymakers are needed to test methods of improved dissemination and adoption of comprehensive, enduring, and effective family programs that truly reduce the many interrelated negative outcomes of “early starters” and other high-risk youth (Biglan, Mrazek, Carnine, & Flay, 2003).

Family Protective and Resilience Factors

The probability of a youth acquiring developmental problems increases rapidly as risk factors such as family conflict, lack of parent–child bonding, disorganization, ineffective parenting, stressors, parental depression, and others increase in comparison with protective or resilience factors. Hence, family protective mechanisms and individual resiliency processes should be addressed in addition to reducing family risk factors. The major protective family factors for improving adolescent health behaviors include positive parent–child relationships, positive discipline methods, monitoring and supervision, and communication of prosocial and healthy family values and expectations (Ary et al., 1999; Center for Substance Abuse Prevention, 2000). Resiliency research suggests that parental support in helping children develop dreams, goals, and purpose in life is a major protective factor (Kumpfer, 1999). The challenge is to implement interventions that effectively address such a broad range of family factors to prevent interrelated youth behavior problems (Jessor, 1993).

Effectiveness of Family Interventions

The effectiveness of parenting and family interventions to prevent many types of adolescent problems (e.g., conduct disorders, violent and aggressive behaviors, delinquency, substance abuse, depression, suicide, teen pregnancy, HIV disease, school failure, and eating disorders) has considerable empirical support in the research literature. Several major literature reviews include Brestan and Eyberg (1998), Kazdin (1993, 1995), Kumpfer (2002), Kumpfer and Alder (2003), Liddle, Santisteban, Levant, and Bray (2002), Lochman (2000), Taylor and Biglan (1998), and Webster-Stratton and Taylor (2001). Two major meta-analyses of family-based approaches include Serketich and Dumas (1996) for behavioral parent training programs only and Tobler and Kumpfer (2000) for all family-based approaches.

The two major federal studies reported in this article build on and support these scientific literature reviews,

which suggest there are a number of effective family-focused prevention programs for a variety of targeted family needs. However, the two scientific reviews reported here sought to extend these review results conducted generally by a single research group by determining which family-focused *approaches* (as contrasted to individual programs) had sufficient evidence of effectiveness. The Center for Substance Abuse Prevention’s (1998) Prevention Enhancement Protocols System (PEPS) and the National Institute of Justice’s Office of Juvenile Justice and Delinquency Prevention (OJJDP; Alvarado & Kumpfer, 2000) reviews used these literature reviews and studies mentioned to locate studies, categorized them into approaches, applied strict design criteria for effectiveness of each study, and used expert panels composed not of just one research group but of leading experts across different universities to determine if an approach had sufficient evidence of effectiveness. Prior reviews were generally only literature reviews (including several meta-analyses) published by proponents of the behavioral parent training approach or by those favoring the family systems approach.

The current studies support the prior literature reviews (Kumpfer & Alder, 2003), which suggest that many of the precursors of serious adolescent problems can be reduced or eliminated through early intervention to improve parenting and family systems dynamics from prebirth to adolescence. Parents of high-risk children can be provided early parenting and family support programs from birth to 5 years of age to improve cognitive and behavioral outcomes in children (Nixon, Sweeney, Erickson, & Touyz, 2003). Children who are early starters of aggressive behaviors have a higher risk of becoming delinquent or drug abusers. Hence, children manifesting aggressive behaviors should be referred for family-focused interventions (Brestan & Eyberg, 1998; Webster-Stratton & Taylor, 2001). Early elementary school parent training or family skills training programs have been found very effective in reducing aggression, conduct disorders, attention deficit/hyperactivity, and oppositional defiant disorders (Kazdin, 1993, 1995; Sanders, 1996; Taylor & Biglan, 1998), as well as preventing child abuse, later drug abuse (Dishion & Andrews, 1995), and delinquency (Alvarado & Kumpfer, 2000). The reviews of family skills training programs (Lochman, 2000) and brief family therapy used as prevention programs (Liddle et al., 2002) for high-risk teens and their younger siblings suggest these approaches are effective in reducing adolescent problems by improving family supervision and monitoring, facilitating effective communication of expectations and family values or norms, and improving positive family time together to increase parent–child attachment to reduce negative peer influence.

Although none of the literature reviews mentioned in this section conducted an expert panel scientific review of family-based approaches to be covered here, their general conclusions were very similar. These reviews found that behavioral parent training, family skills training, and brief family therapy were effective when applied as a prevention program with high-risk youth. They did not find much support for parent education, family education, family sup-

port, or in-home family preservation as effective approaches. Reviews of in-home family support (Yoshikawa, 1994) found significant effectiveness of this approach, but the two federal reviews could only find moderate levels of evidence of effectiveness and only for very young children (0–5 years old).

Standards for Effectiveness and Dissemination

Unfortunately, practitioners are not implementing these evidence-based family interventions routinely, compared with practitioner-developed or commercially marketed parenting programs, which often have no tested outcome results. To improve outcomes and increase accountability, federal and state government agencies are mandating that practitioners spend public funds only on effective programs as found on their lists of scientific programs. Unfortunately, different criteria have been used that produce incompatible lists. Different qualifying terms, such as *exemplary*, *model*, and *promising*, are used in different ways to define the level of evidence of effectiveness. Researchers are beginning to accept the Chambless and Hollon (1998) criteria (based on the American Psychological Association Task Force on Psychological Intervention Guidelines, 1995) as the standard for defining empirically supported therapies, namely at least two randomized control trials by two independent teams of investigators. Biglan et al. (2003) have developed a seven-level system in which the highest levels (Grades 1 and 2) include interventions with evidence of effectiveness in two or more independently replicated control trials (randomized or time series). Grade 3 is defined by multiple randomized or time series trials by a single research team, Grade 4 as one control trial, Grade 5 as a quasi-experimental comparison group study, Grade 6 as a nonexperimental design, and Grade 7, the lowest level of evidence, is defined as only endorsements by respected authorities based on clinical experience. Hence, the standard for disseminability (i.e., making an effective programs list) should be at least Grade 2 because it includes the criterion that the program must demonstrate positive results in a well-designed study by at least one independent research team from the original program developers.

In addition, we recommend that outcome effectiveness be measured not only by statistically significant improvements in which the results did not occur by chance, but also by the size of the behavioral changes or effect sizes in the desired ultimate outcomes or in well-documented powerful precursors of children's problem behaviors. Effect size should be at least .40 in three or more hypothesized outcomes with no major negative outcomes prior to being recommended as an evidence-based prevention program. In general, family-focused prevention programs average moderate to very large effect sizes for reductions in conduct disorders and aggression averaging nine times greater (effect size = .96 vs. .10) than child-only interventions (Serketich & Dumas, 1996; Tobler & Kumpfer, 2000).

Using similar review criteria, expert panels have evaluated family-based programs for their scientific rigor and effectiveness outcomes. Two of these reviews are discussed in the following section.

Federal Scientific Reviews to Identify Effective Family Programs or Approaches

OJJDP's Strengthening America's Families Project

One of the most ambitious federal efforts to disseminate evidence-based family programs was launched by the National Institute of Justice's OJJDP in 1989. In partnership with us at the University of Utah, they began a national search to identify specific family programs effective in reducing not just delinquency and drug abuse but any associated negative behavior. Over the past 13 years, first 25 and then 35 family programs targeting children from birth to adolescence were selected by an expert panel from over 500 programs nominated by eight different types of state youth-serving agencies or found in the research literature. Another expert panel review was conducted in November 1999 with higher weighting given to research design integrity, outcome data, and independent replications. Terminology used to categorize the 35 identified family programs (Alvarado & Kumpfer, 2000) into four levels of evidence of effectiveness corresponds roughly to Biglan et al.'s (2003) seven-level "grade" criteria for dissemination as defined below. The 35 programs include the following: 7 Exemplary I programs (Grades 1 and 2 independently replicated), 7 Exemplary II programs (Grade 3 multiple randomized trials by single research team), 16 model programs (Grades 4 and 5), and 5 promising programs (Grades 6 and 7 nonexperimental designs). Rerating is needed because many programs now have additional randomized trials—some by independent investigators. Dissemination efforts include a Web site (www.strengtheningfamilies.org) with a literature review, a program descriptions monograph, *Strengthening America's Families* (Alvarado, Kumpfer, Kendall, Beesley, & Lee-Cavaness, 2000), an OJJDP bulletin series with 18 single issues on the most effective programs, four national conferences, 20 program training workshops, technical assistance as needed, and \$5,000 minigrants for program implementation. See the project Web site for a complete description of the selection process and criteria and a matrix of selected model programs. With \$10 million in extra funds allocated by Congress in 1999, the CSAP under Karol L. Kumpfer's direction created a partnership with OJJDP to conduct two showcase conferences and funded \$100,000 per year to 96 communities to select, implement, and evaluate from the OJJDP/CSAP list the best family programs for their local needs. In 2000, CSAP and the Center for Mental Health Services funded 34 more communities.

CSAP's Family-Based Prevention Review

In 1998, CSAP published their Prevention Enhancement Protocol System (PEPS) guide focusing on family inter-

ventions, called *Preventing Substance Abuse Among Children and Adolescents: Family-Centered Approaches* (Center for Substance Abuse Prevention, 1998). This guide discusses the results of an expert panel analysis cochaired by Karol L. Kumpfer and José Szapocznik focusing on which family intervention *approaches* work from a list of 10 possible intervention types or approaches: parent education, parent support, parent training, family skills training, family education, family support, family preservation, in-home family support, family involvement in youth programs through homework activities, and family therapy. A literature review produced over 700 articles to review. After the rigorous PEPS screening criteria were applied, 64 research articles on 52 different programs contained enough information to review. A national search soliciting exemplary case studies included letters and follow-up phone calls and yielded another 56 programs. A total of 108 programs were analyzed independently by the reviewers and through a group consensus process to determine: (a) type of approach, (b) type of research design, and (c) strength and type of the outcome results. The assessment of the evidence of effectiveness of each individual study was based on the following research criteria (Campbell & Stanley, 1966): (a) potential sources of bias, (b) internal validity, and (c) external validity.

Next, the expert panel aggregated these individual studies to determine whether a particular approach rated one of four levels of the strength of evidence of effectiveness: (a) strong, (b) medium, (c) suggestive but insufficient evidence, or (d) substantial evidence of ineffectiveness. The rules of evidence criteria for all PEPS reviews are spelled out in the *PEPS Planning Manual* and are based on existing federal guideline standards including those used by the Administration for Health Care Policy Research. The highest level of strong evidence of effectiveness required at least three well-executed experimental or quasi-experimental studies by three independent research teams using at least two different methodologies showing statistically significant positive results for improved children's behaviors. While improved parent outcomes were measured in about half the studies, parent changes *only* without child outcomes were not considered acceptable outcomes. Change in children's behaviors or mental health as measured by standardized tests or observation must have also been documented.

CSAP's Effective Family Approaches

The Center for Substance Abuse Prevention's (1998) expert review of family-focused approaches determined that only three family intervention approaches demonstrated the highest level of evidence of effectiveness (Level I: strong) in reducing behavioral and emotional problems in children five years and up. These include (a) parent training (primarily cognitive/behavioral parent training), (b) family skills training, and (c) family therapy (brief, manualized, structural, functional, or behavioral family therapy).

The first two of these family approaches, parent training and family skills training, have been endorsed by the prior mentioned reviews of behavioral researchers. The

third approach, namely, brief, manualized family therapy, is only included as an indicated prevention approach in a few reviews by family systems researchers (Liddle et al., 2002). However, the family-based prevention experts participating in these two federal reviews felt that four brief family therapy interventions should be included because they had evidence of effectiveness for indicated prevention with youth who are not using substances yet but are highly at risk. None of these literature reviews report any evidence of effectiveness for parent education or parent support approaches. These highly marketed programs are characterized by short-term (less than 8 hours), didactic, knowledge-only sessions or affectively based parent education (Center for Substance Abuse Prevention, 1998). The programs identified for the various CSAP approach categories were reviewed as part of the recent OJJDP/CSAP's Strengthening America's Families Project and the CSAP National Registry of Effective Prevention Programs (www.samhsa.gov/csap/modelprograms). Only program developers interested in widespread dissemination of their programs participated in these efforts.

Effective Family-Focused Intervention Approaches

Descriptions of the three evidence-based approaches with strong evidence follow.

Behavioral Parent Training

This highly structured approach includes parents only, generally in small groups led by a skilled trainer following a curriculum guide averaging 6 to 15 sessions of one to two hours in child management strategies. Sometimes called parent training therapy when applied to individual families (Forgatch & Patterson, 1998), the major characteristic of this approach is that only the parents participate in the skills training, which focuses on cognitive, affective, and behavioral changes in the parent. Parents are encouraged to increase their positive interactions with their children through positive play, increased rewards for good behavior, ignoring unwanted behavior, and improved communication with clear requests and consequences. Sessions frequently include review of homework, video presentations of more or less effective ways of parenting, short lectures and discussions to elicit parenting principles, interactive exercises, modeling and role plays of direct practice in the parenting behavior to be changed, charting and monitoring of parenting and children's behaviors, assignment of homework, and sessions on effective discipline through timeouts or removal of privileges.

Patterson and associates (Patterson, Dishion, & Chamberlain, 1993; Patterson & Narrett, 1990) pioneered and disseminated the effectiveness of behavioral parent training and found that at least 45 hours are needed with high-risk families. Research suggests that therapist-guided role play was more effective than reading and discussion with lower socioeconomic status parents (Knapp & Deluty, 1989). Webster-Stratton's (1990) BASIC Parents Training Program for preschool and elementary school children in-

cludes 250 video vignettes effectively used for parental discussion (Taylor & Biglan, 1998; Webster-Stratton & Taylor, 2001). An analysis of parent training studies (Webster-Stratton & Taylor, 2001) suggests that (a) this parent training approach works best with young children (3 to 10 year old); (b) clinic-based changes generalize to the home setting, but not necessarily the school setting, for up to four years; (c) about two thirds of children show clinically significant improvements; (d) minority families and families with behaviorally disordered children prefer group-based services to individually delivered services; and (e) adding sessions on to address the parents' own issues increases effectiveness, as does adding children's skills training sessions (Tremblay, Masse, Pagani, & Vitaro, 1996; Webster-Stratton & Hammond, 1997). Serketic and Dumas's (1996) meta-analysis of 26 behavioral parent training studies found the mean age of children involved in the studies was 6.05 years and effect sizes were high, ranging from .84 for parental report and .85 for observer report on their children to .44 for parents' reports on themselves.

Family Skills Training

This multicomponent approach combines (a) behavioral parent training (described in the previous section), (b) children's social and life skills training, and (c) family practice sessions. This approach differs from parent training because children attend their own skills training group and the family has practice time together. Typically, the format involves the whole family coming to a community center, school, church, or family services agency. After a meal, they split into a parent group and a children's group. In the second hour, they reunite in family groups to practice together the skills learned in the first hour. Parents are taught special therapeutic play or parent-child interactive therapy (Forehand & McMahon, 1981; Herschell, Calzada, Eyberg, & McNeil, 2002; Nixon et al., 2003). The parents learn through observation, direct practice with immediate feedback by trainers and videotape, and trainer and child reinforcement of how to improve positive play by following the child's lead and not correcting, bossing, criticizing, or directing. Teaching parents therapeutic play has been found to improve parent-child attachment and improve child behaviors in emotionally disturbed and behaviorally disordered children (Egeland & Erickson, 1990). After the parents master "special play," they begin family communication and family meeting sessions. Finally, they practice effective discipline and request techniques to improve compliance.

Retention has been found to be about a third higher for family skills training than parent-only groups (Gottfredson, Kumpfer, Guttman, & Spoth, 2001). The children encourage the parents to sign up or stay in the program. Contents of the children's skills training program often include the following: identification of feelings, anger and emotional management, accepting and giving feedback and criticism or praise, problem solving, decision making, assertion and peer resistance skills, communication skills, and how to make and keep positive friends. Barriers to attendance are

reduced by providing meals, transportation, and child care. Family skills training is currently gaining increasing popularity and appears to work best for elementary and middle school children; however, a variant, called behavioral family intervention, involving the family sessions, has been found to have long-term positive impact on preschoolers with co-occurring disruptive behaviors (Bor, Sanders, & Markie-Dadds, 2002).

Karol L. Kumpfer (DeMarsh & Kumpfer, 1985; Kumpfer & Alder, 2003) conducted outcome studies using a randomized control trial with a four-group dismantling design on the Strengthening Families Program (SFP) in the early 1980s. This research suggests that each component of a family skills training program targets slightly different family outcomes: Parent training reduces conduct disorders, children's skill training improves children's social competency, and family practice sessions increase positive family communications and relationships. Hence, family skills programs address more risk and protective factors. A cost-benefit ratio of \$9.60 per dollar spent has been found for the junior high version of SFP (Spoth, Guyll, & Day, 2002). For examples of family skills training programs, see OJJDP's Strengthening America's Families Web site (www.strengtheningfamilies.org).

Family Therapy

This approach barely met criteria for recommendation as an indicated primary prevention approach. Only four randomized control trials by independent investigative teams could be found with positive outcome results for high-risk youth, rather than when applied as a treatment program for youth already diagnosed with the disorder to be prevented. All four programs were brief, manualized, family therapy programs. Their intensity or dosage is sometimes even less (8 family sessions) than that for family skills training programs with 12 to 16 two-hour sessions. The major differences from family skills training programs are that these brief family therapy models are (a) typically implemented with individual families rather than in groups, (b) are implemented by trained and licensed mental health clinicians or interns rather than prevention specialists, and (c) intervene with higher risk youth with minimal but detectable signs and symptoms for shadowing mental disorders but who do not meet diagnostic levels to prevent the development later of the disorder to be prevented (e.g., conduct disorder, delinquency, substance abuse, depression, and school or social problems; Liddle et al., 2002). For further distinctions between these indicated prevention programs, which target individual families, and selective prevention programs, which target high-risk groups of families, see Tolan (2002). Sometimes called *family-based empirically supported treatments*, these interventions are preventive also for younger siblings through improvements in maladaptive family processes (Alexander, Robbins, & Sexton, 2000).

Additional Effective Family Interventions

After the CSAP review, two other family approaches have had additional studies published that suggest they could

also be considered evidence-based approaches: in-home family support programs and family education programs. A meta-analysis of family programs conducted by Tobler and Kumpfer (2000) found a very high average effect size for 14 in-home family support programs in reducing conduct disorders in young children. Family education programs using school homework assignments in which parents and students are asked to participate have begun to publish positive outcome results with as few as four sessions at home costing only \$140 per family (Bauman et al., 2000). Whereas in-school parenting programs generally attract a small percentage (about 33%) of parents in schools, 62% to 94% of parents have been found to participate in family homework assignments (Rohrbach et al., 1995). Because of the cost-effectiveness of this approach, we are reevaluating the effectiveness of this approach.

Comprehensive, Multicomponent Family Programs

Similar to the multicomponent family-skills training model, adding family-focused interventions to community-based interventions (Borduin et al., 1994; Pentz, 1995) or school-based interventions (Webster-Stratton & Taylor, 2001) increases effectiveness. Multicomponent programs including the family address more risk and protective factors. For example, the Fast Track program, one of the largest prevention research clinical trials ever funded (Bierman, Greenberg, & the Conduct Problems Prevention Research Group, 1996; McMahon, Slough, & the Conduct Problems Prevention Research Group, 1996), incorporates McMahon's parenting program with teacher training to reduce conduct disorders in over 9,000 kindergarten children. By the end of the third grade, a moderate reduction in serious conduct problem disorder and improvement in children's social cognitive skills were found (Conduct Problems Prevention Research Group, 2002). Our research team found larger effect sizes for school bonding, social competencies, impulse control, and other variables when SFP was combined with the teacher-led I Can Problem Solve Program (ICPS) (Shure & Spivack, 1979) than when SFP or ICPS was implemented alone in a randomized control trial involving 12 elementary schools (Kumpfer, Alvarado, Tait, & Turner, 2002).

Principles of Effective Family-Focused Interventions

Principles of effective family-focused programs can help practitioners judge whether a program is worth adopting. We derived 13 principles or characteristics of successful family programs (see the Appendix) by reviewing and listing principles found in the research literature specifically on prevention principles (Alvarado & Kumpfer, 2000; Nation et al., 2003; Sloboda & David, 1997), reviewing the results of the prior mentioned literature reviews on effective family interventions (Lochman, 2000; Taylor & Biglan, 1998; Webster-Stratton & Taylor, 2001), reviewing individual family research studies supporting these principles, and clustering similar principles together. A longer

description of these principles and the research supporting them can be found in Kumpfer and Alder (2003). These principles characterize the effective family strengthening approaches and programs that have been discussed in this article. Practitioners can use these principles as a checklist in selecting, adapting, or creating a new family program that best matches their client's needs (e.g., by age, developmental level, gender, culture). They should be cautioned that family interventions having these characteristics still may not be effective. Only programs with positive outcomes reported in high-quality research studies should be judged as empirically supported.

Additional Resources for Effective Family Programs

Online registries of effective programs are currently being developed to create searchable databases of empirically supported programs such as the Society for Prevention Research's International Registry of Prevention Trials (Brown, Mrazek, & Hosman, 1998), CSAP's National Registry of Effective Prevention Programs (www.samhsa.gov/csap/modelprograms), and the Centers for Disease Control and Prevention's Guide to Community Preventive Services (www.thecommunityguide.org). These registries, when completed, will enhance literature searches and meta-analyses and serve as databases for computerized decision support systems such as CSAP's Prevention Decision Support System (www.preventiondss.org) or the Western Center for the Application of Prevention Technology (www.westcapt.org) online support system to find matches on the best evidence-based program for local communities. Collaborations should continue among prevention scientists to attract the substantial funding needed to create a single prevention registry with agreed-on coding schemes.

Recommendations for Research and Practice

Scientific evidence suggests family interventions can be powerful and cost-effective tools for reducing youth problems when implemented properly with the right populations. Often the effect sizes are smaller when science-based programs are implemented by practitioners. Unfortunately, there is often little research to answer practitioners' implementation questions on how much they can change the program, staffing, and incentives for attendance, when they have less funding.

Practice Research Recommendations

Additional research is needed on (a) population-specific versions of evidence-based programs to increase appropriateness for age, gender, cultural, geographic location, and special needs (Kumpfer, Alvarado, Smith, & Bellamy, 2002; Lutzker, 1998); (b) reasons why providers select, modify, cut length, add own content, or implement with reasonable fidelity; (c) engagement, recruitment, and retention strategies such as prior relationship building, improving perceived relevance of the intervention, removing attendance barriers (e.g., meals, child care, transportation,

and incentives for homework completion), and therapist warmth and competence (Coatsworth, Szapocznik, Kurtines, & Santisteban, 1997); and (d) types of training methods that lead to the best program implementation and outcomes.

Research Methodology Recommendations

Improved research methodologies are needed, including (a) improved measurement and data analysis strategies, such as multiple baselines allowing growth curve modeling, culturally appropriate measures, retrospective pretests at posttest to control for positive bias at pretest, and studies examining impact on participation if signing up for “research”; and (b) follow-up data collection strategies to improve gathering longitudinal data to determine the long-term impacts of parenting and family programs.

Dissemination and Policy Research Recommendations

Increased attention should be focused on diffusion of innovations applied research (Backer, 2000; Biglan & Taylor, 2000). Backer (2000) summarized four principles of effective dissemination from over 10,000 studies. These principles include (a) *user-friendly and easily-accessible communication* such as newsletters or Web site decision support systems rather than academic research journals, (b) *user-friendly evaluations* demonstrating that the innovation works better than alternatives, (c) *sufficient resources* to implement the new innovation, and (d) *systems rewarding and facilitating change* to new innovation. Cost-effectiveness and cost-benefit studies are needed to demonstrate the cost savings to policy makers as well as studies on funding mechanisms promoting long-term implementation. Dissemination systems for broad population impact, such as parenting media campaigns and prime time television series (Sanders, Turner, & Markie-Dadds, 2002), also should be studied. Research is needed to understand barriers to marketing by researchers, such as academic role, incentives, time requirements, or other marketing strategies such as partnerships with commercial marketers. The usefulness of computer Web-based technology should be studied in developing online technical assistance support systems, such the CSAP Prevention Decision Support System (www.preventiondss.org). Beyond research, we should fund providers to implement evidence-based programs and invest in nationwide training and technical assistance systems and community-university partnerships (Molgaard, 1997) to increase the provider's capacity to implement these effective prevention programs with fidelity.

Conclusion

Many effective family-focused, evidence-based prevention programs and approaches exist in the research literature; however, the slowness of their diffusion from research to practice has been frustrating and costly to society. Future research should test dissemination, capacity building, funding mechanisms, and prevention support systems to promote their widespread adoption and fidelity of implemen-

tation (Kumpfer & Kaftarian, 2000; Wandersman & Florin, 2003). Advancing the adoption of empirically validated family interventions will depend on sufficient funding and more sophisticated partnerships and collaborations among policymakers, researchers, practitioners, marketers, and technology transfer specialists. These new family intervention research projects will help the United States to more effectively meet the desire of parents to be better parents and help their children become happy, healthy, and productive adults.

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Appendix

Principles of Effective Family-Focused Interventions

1. Comprehensive multicomponent interventions are more effective in modifying a broader range of risk or protective factors and processes in children than single-component programs (DeMarsh & Kumpfer, 1985; Kumpfer & Alder, 2003; Taylor & Biglan, 1998; Webster-Stratton & Hammond, 1997).
2. Family-focused programs are generally more effective for families with relationship problems than either child-focused or parent-focused programs, particularly if they emphasize family strengths, resilience, and protective processes rather than deficits (DeMarsh & Kumpfer, 1985; Dishion & Andrews, 1995).
3. Components of effective parent and family programs include addressing strategies for improving family relations, communication, and parental monitoring (Ary et al., 1999; Center for Substance Abuse Prevention, 2000; Taylor & Biglan, 1998).
4. Family programs are most enduring in effectiveness if they produce cognitive, affective, and behavioral changes in the ongoing family dynamics and environment (Kumpfer & Alder, 2003).
5. Increased dosage or intensity (25–50 hours) of the intervention is needed with higher risk families with more risk factors and fewer protective factors and processes than low-risk universal families who need only about 5 to 24 hours of intervention (Patterson & Narrett, 1990).
6. Family programs should be age and developmentally appropriate with new versions taken by parents as their children mature (Kumpfer & Alder, 2003).
7. Addressing developmentally appropriate risk and protective factors or processes at specific times of family need when participants are receptive to change is important (Center for Substance Abuse Prevention, 2000).
8. If parents are very dysfunctional, interventions beginning early in the life cycle (i.e., prenatally or early childhood) are more effective (Webster-Stratton & Taylor, 2001).
9. Tailoring the intervention to the cultural traditions of the families improves recruitment, retention, and sometimes outcome effectiveness (Kumpfer, Alvarado, Smith, & Bellamy, 2002; Turner, 2000).
10. High rates of family recruitment and retention (in the range of 80%–85%) are possible with the use of incentives, including food, child care, transportation, rewards for homework completion or attendance, and graduation (Kumpfer, Alvarado, Smith, & Bellamy, 2002).
11. The effectiveness of the program is highly tied to the trainer's personal efficacy and confidence, affective characteristics of genuineness, warmth, humor, and empathy, and ability to structure sessions and be directive (Alexander, Barton, Schiavo, & Parsons, 1976).
12. Interactive skills training methods (e.g., role plays, active modeling, family practice sessions, homework practice, and videos/CDs of effective and ineffective parenting skills, etc.) versus didactic lecturing increase program effectiveness and client satisfaction particularly with low socioeconomic level parents (Webster-Stratton, 1994).
13. Developing a collaborative process whereby clients are empowered to identify their own solutions is also important in developing a supportive relationship and reducing parent resistance and dropout (Sanders & Dadds, 1993; Webster-Stratton & Herbert, 1994).