Commentary on Positive Youth Development in the United States: Research Findings on Evaluations of Positive Youth Development Programs

Positive Youth Development, Prevention, and Positive Psychology: Commentary on "Positive Youth Development in the United States"

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ABSTRACT
The review of positive youth development programs by R. F. Catalano, M. L. Berglund, J. A. M. Ryan, H. S. Lonczak, and J. D. Hawkins (2002) is an important milestone in positive psychology. It documents the potential power of building strengths and competencies in children. The present commentary explores the relationship of positive psychology to prevention and the broader field of positive psychology. We focus on (a) the ways in which positive youth development can benefit from research recommendations that are commonly made in the treatment and prevention literatures and (b) how prevention science can benefit by incorporating a positive youth development approach. Finally, we suggest that the current field of positive youth development is limited in that it focuses primarily on building strengths to reduce negative outcomes such as substance abuse, violence, teen pregnancy, and academic failure. An important and exciting goal for future programs is to foster an equally broad range of positive outcomes.

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Positive psychology is gaining momentum as a field. Parents, teachers, and community leaders are hungry for interventions that promote competence, optimism, compassion, and other strengths in children and adolescents. And there is growing awareness that when children are infused with these strengths, they are more resilient to a variety of problems, from depression to school failure to violence, that plague the United States today. Still, compared with research on the remediation of problems (or "negative psychology"), there is little research on the development of positive qualities in children. The review of positive youth development programs by Catalano, Berglund, Ryan, Lonczak, and Hawkins (2002) is an important milestone for positive psychology. It is encouraging that Catalano and his colleagues found 25 effective programs and that only 4 of the interventions evaluated with strong research designs failed to produce significant effects (Catalano et al., 2002). The effects of these programs can be inspiring. Children who participated in the Seattle Social Development Project reported stronger attachment to school and greater school achievement than did controls. They were less likely than controls to engage in sexual intercourse, abuse alcohol, and commit violent acts 6 years after the intervention ended (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999). The Quantum Opportunities Program reportedly increased high school graduation rates by 50% and more than doubled rates of college attendance (Catalano et al., 2002).

It is hard to draw any strong conclusions about the effects of positive youth development programs, however. Findings are quite varied, relatively few studies include long-term follow-ups, and effects of only a few programs have been replicated. The goals of effective programs are diverse, ranging from the prevention of substance abuse, violence, risky sexual behavior, and/or teen pregnancy, to the improvement of children's adjustment following parental divorce, to enhancement of academic achievement and graduation rates. Although all of the interventions strove to build strengths, competencies, and other positive qualities, there is a danger that lumping together such diverse interventions blurs important distinctions and fails to inform researchers about specific pathways for change. That it is possible for one article to review these interventions demonstrates just how far the field of positive youth development must travel over the next few decades.

Nevertheless, the review by Catalano and his colleagues is important for several reasons. First, it offers a definition of positive youth development programs and attempts to identify key positive youth development constructs. Second, it documents the potential power of interventions that focus on building strengths. Third, it identifies many of the problems in research on positive youth development and offers suggestions that will improve research in this area in the future. Finally, it demonstrates that positive youth development and prevention are closely intertwined and that prevention science may benefit from incorporating a positive youth development approach. We focus on the first, third, and fourth issues in the present commentary: definitions of positive youth development, research recommendations, and benefits for prevention science. We end by exploring the relationship between positive youth development programs and positive psychology.

**Definitions**

**Positive Youth Development Programs**

Most of the programs reviewed by Catalano and his colleagues were designed to prevent
behavior problems. Several of these programs (e.g., Responding in Peaceful and Positive Ways, The Providing Alternative Thinking Strategies [PATHS] Program, Positive Youth Development Program, Child Development Project, Seattle Social Development Project, Big Brothers/Big Sisters, Fast Track) are also discussed in a recent review of programs designed to prevent internalizing and externalizing disorders in children (Greenberg, Domitrovich, & Bumbarger, 2001). And many of the other programs were conceptualized by their developers as prevention programs. This raises questions about the definition of positive youth development programs and the ways in which these programs differ from preventive interventions in general.

As Catalano et al. (2002) note, positive youth development is not yet well defined. In their review, positive youth development programs are defined as interventions that are delivered universally or to children at risk (thus the overlap with prevention). But, in contrast to typical preventive interventions, positive youth development programs focus on building or promoting positive qualities in children and focus on children's development in a social context, including the family, school, and/or community. Whereas this is an important and useful definition, it may also be helpful to emphasize that these criteria are continuous rather than categorical. The programs reviewed vary in the degree to which they focus on promoting positive qualities versus reducing risk factors. Similarly, many prevention programs not reviewed attempt to increase self-efficacy and teach prosocial skills like negotiation and decision making in addition to targeting risk factors.

**Positive Youth Development Constructs**

Catalano et al. (2002) make an important call for the identification and assessment of positive youth development constructs. Their review identifies several important constructs, including social, emotional, and cognitive competence, bonding, resilience, self-efficacy, positive identity, prosocial norms, and future-mindedness. One approach to identifying constructs relevant to positive youth development is to examine the goals of existing programs. This seems to be the approach taken in the review. But it is likely that many other important positive qualities exist that have not yet been targeted by existing programs. Thus, another important approach is to identify the strengths and qualities that are widely valued in society, such as courage, leadership, authenticity, kindness, and generosity (Dahlsgaard, Peterson, & Seligman, 2001). This approach may be particularly useful, as it can lead to the development of new positive youth development programs.

**Research Recommendations**

**Assessment of Positive Youth Development Constructs**

All of the programs reviewed by Catalano and his colleagues sought to build strengths, competence, and/or other positive qualities in children. However, program evaluations focused primarily on the reduction or prevention of behavior problems. Few programs would have been reviewed had measurement of positive youth development constructs been an inclusion criterion (Catalano et al., 2002). Catalano and his colleagues call for the development and use of measures for assessing changes in social and emotional competence, resilience, positive identity, bonding, and other positive youth development constructs. Assessment of these constructs is essential for determining whether interventions succeed in building the strengths and competence they strive for. Assessment of these
constructs is also necessary for evaluating mediational hypotheses and determining which strengths are important for which outcomes. Because the focus on strengths and competence is the hallmark of positive youth development, researchers should consider making the assessment of these constructs an inclusion criterion in future reviews.

Catalano et al. (2002) note that there is a lack of consensus about what constitutes a complete set of positive youth development outcomes and suggest the development of more standardized assessments of strengths. Whereas assessment instruments are sorely needed, researchers also need to be careful that assessments are theoretically driven. As Dadds (2001) cautions, the multifinality and equifinality stances (the views that a single risk or protective factor can affect a variety of outcomes and that a single outcome can be caused by many risk or protective factors) are likely to be true but are nontheoretical. Researchers should assess constructs that interventions are expected to change, either directly or indirectly. From a practical perspective, the proliferation of measures in a single study can be quite costly in terms of reduced compliance and increased attrition. From a statistical perspective, the proliferation of measures increases the probability of a Type I error and invites caution in interpreting results, especially when assessment of constructs is not theoretically driven.

Assess Change From Multiple Perspectives

Another problem in some studies is the reliance on self-report measures. Children and adolescents are likely to underreport behavioral problems, and it is possible that reductions in self-reported behavior problems reflect a desire to please intervention leaders rather than true behavior change. Even self-reported achievement or grades (which seem less susceptible to bias) may correlate only moderately with grades listed on transcripts (Starfield et al., 1995). In the evaluation of the Life Skills Training Project, self-reported smoking correlated only moderately with carbon monoxide levels (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995). Although most participants in the Teen Outreach intervention were accurate in their reporting of academic failure and suspensions, approximately 25% of students gave inaccurate reports of these events at any given assessment point (Allen, Philliber, Herrling, & Kuperminc, 1997). Therefore, it is best to supplement self-report measures with parent and teacher reports, observations, school records, and/or other more objective measures. Some of the objective measures used in the studies reviewed include carbon monoxide levels and serum tests to assess nicotine use, achievement test scores, transcripts, suspension records, and court records. When using teacher reports, it is important that teachers are not program deliverers and, as much as possible, that they are blind to the intervention condition.

Include Follow-up Assessments

Catalano and his colleagues note that more than one half of the program evaluations employed pre-post designs. Lack of follow-up is a common problem in treatment outcome research (Chambless & Hollon, 1998), but it is especially problematic in studies of prevention and positive youth development programs. Informed parents, schools, and communities are unlikely to devote time and resources to interventions that produce only short-term effects. Longer term follow-ups will enable researchers to better document the effects of the interventions and to determine if and when booster sessions may be beneficial.
**Analyze Effects for High- and Low-Risk Subgroups**

Universal interventions may produce different effects for high- and low-risk students. Some of the interventions were ineffective or, worse, backfired with high-risk children. Project Northland significantly prevented alcohol, cigarette, and marijuana use among participants who were nonusers at baseline but had no significant effect for participants who initially used these substances (Perry et al., 1996). Negative outcomes were found for children in Project Alert who smoked at the start of the study (Ellickson & Bell, 1990), and moderately aggressive 5th and 6th graders in the Metropolitan Child Area intervention reportedly fared worse than did their controls (Catalano et al., 2002). These findings highlight the importance of subgroup analyses and suggest that the most effective approach for preventing psychological disorders and enhancing youth development will involve a combination of targeted and universal interventions (Guerra, Eron, Huesmann, Tolan, & Van Acker, 1997; Pearson & Koretz, 2001).

**Develop and Share Strategies to Minimize Attrition**

Attrition is a common problem in studies of school- and community-based intervention programs. In the studies reviewed, attrition rates of 20-40% were fairly common. Attrition rates are likely to increase as researchers include longer term follow-ups in their program evaluations. Children who fail to complete assessments may differ in important ways from their peers who complete assessments. They may exhibit more behavioral problems, more risk taking, lower achievement, and lower school attendance (Allen et al., 1997; Farrell & Meyer, 1997; Kirby, Barth, Leland, & Fetro, 1991). Thus, heavy attrition limits researchers’ knowledge about the effectiveness of positive youth development programs for children who are at higher risk for future problems.

Despite the importance of retaining participants, research reports rarely give much detail on procedures that may have been used to reduce attrition. One noteworthy exception that may be useful to positive youth development researchers is an article by Clarke (1993) that outlines a fairly comprehensive protocol for retaining child participants in longitudinal studies. Prevention and positive youth development program research will benefit enormously if other research groups share successful strategies for tracking and retaining participants.

**Report the Magnitude of Effects**

The use of large samples is a common strength in evaluations of positive youth development programs. As Catalano et al. (2002) note, intervention and control groups typically consist of 100 to over 1,000 children. Obviously, large samples have many benefits. They allow for subgroup analyses (by risk level, gender, race/ethnicity, grade, etc.). These analyses are critical given the finding that interventions may be ineffective for some groups of children. Large samples also ensure sufficient statistical power to detect intervention effects and are usually necessary to detect differences in categorical variables like teenage pregnancy or graduation from high school (Muñoz, 1993). However, large samples also invite caution. Some statistically significant effects are not very meaningful.

Many of the intervention effects reported are substantial. For example, graduation rates reportedly increased by 50% following the Quantum Opportunities Program (Catalano et al.,
The Seattle Social Development Project reduced heavy drinking by 40% (Hawkins et al., 1999). But some of the differences reported seem small. With a sample of 1,000 per condition, an effect size of just 0.13 standard deviations will be significant (with a two-tailed alpha of 0.05 and power = 0.80). With a one-tailed alpha, an even smaller effect will be significant. Although small effects for large numbers of individuals may translate into large benefits for society (Offord, Kraemer, Kazdin, Jensen, & Harrington, 1998), most parents and many teachers are interested in programs that produce medium or large effects for the average student who participates. They assume that "significant" means large.

Clearly, the magnitude of differences is as important as their significance (Dadds, 2001). Yet research reports often indicate statistical significance without including information about effect sizes or odds ratios. We echo Catalano et al.’s (2002) call for the reporting of this information.

Positive Youth Development and Prevention

Several of the research recommendations discussed have been made in reviews of treatment and prevention studies (e.g., Chambless & Hollon, 1998; Gillham, Shatté, & Freres, 2000; Greenberg et al., 2001). This is one way in which positive youth development programs may benefit from prevention science. We turn now to the relationship between positive youth development and prevention, particularly what prevention science can learn from the positive youth development movement. The development of strengths and competencies may be crucial for prevention (Greenberg & Weissberg, 2001; Seligman, 2001), and a positive youth development approach may benefit the field of prevention in several ways.

Document Broader Effects and Cost-Effectiveness

Traditional prevention programs focus on psychological disorders (depression, conduct disorder, substance abuse). Investigations of these programs typically assess one major outcome of interest (e.g., depressive disorders or symptoms) and occasionally assess improvement in risk factors thought to mediate the intervention effect (e.g., pessimistic explanatory style). The positive youth development movement reminds researchers that outcomes other than disorder (e.g., teenage pregnancy, violence, graduation rates) are equally important and that a given risk or protective factor likely affects a variety of outcomes. For example, a pessimistic explanatory style is a risk factor for low achievement and poor physical health as well as for depression (Peterson, 1988; Schulman, 1995). Programs that prevent depression by boosting explanatory style may also affect these outcomes (e.g., Buchanan, Gardenvartz, & Seligman, 1999). By focusing on a broader range of outcomes, prevention researchers may be able to discover the true benefits of their interventions and document their cost-effectiveness (Shinn & Toohey, 2001).

Understand Why Interventions Work

The positive youth development movement encourages prevention researchers to focus on strengths, competencies, and other positive qualities their interventions may foster. The assessment of such qualities may provide important information about the pathways through which interventions work and, ultimately, the intervention ingredients that are essential or most important for change.
Prevention researchers often ignore the assessment of mediators or focus on one or two potential mediators. However, the positive youth development movement reminds researchers that small changes on a variety of skills, competencies, and risk factors can add up (or interact) to produce large changes on important outcomes.

**Improve Acceptance of Interventions**

A positive youth development approach will likely increase the acceptance and adoption of prevention programs in the community. It is a disheartening fact that, after studies are completed, few school-based intervention programs are incorporated into the curriculum (Offord, 1996; Smith, Redican, & Olsen, 1992). This is in part due to factors that researchers cannot control, such as limited school district budgets and the departure of key administrators who are involved in projects (e.g., Smith et al., 1992). However, by documenting a broad range of long-lasting effects, researchers can boost enthusiasm and commitment from parents, teachers, and administrators and increase the chances that their programs are adopted on a wider scale.

Universal interventions (that include all children) minimize stigma and are often more easily incorporated into school and community settings than are targeted interventions (that select children on the basis of risk factors or symptom levels). In addition, interventions that focus on the promotion of strengths and other positive qualities may be more appealing than those that emphasize prevention of problems. We have found this to be the case in our own research on a school-based depression prevention program. Over the past decade, we have moved from a targeted approach (selecting children who report elevated symptoms or high levels of family conflict) to a universal approach (including all children for whom we have consent) (Gillham, Reivich, Jaycox, & Seligman, 1995; Shatté, Seligman, Gillham, & Reivich, 2001). Although a major goal of our intervention remains the prevention of depression, we have begun to focus more on the skills and competencies our program may foster, including optimism, careful and realistic assessment of everyday events, decision making, assertiveness, and perspective-taking-skills that may benefit all children.

**Positive Youth Development and Positive Psychology**

The promotion of strengths and competencies is a goal shared by positive youth development researchers and the broader positive psychology movement. But what is the relationship between positive youth development and positive psychology? Are the existing positive youth development programs positive psychology programs?

The promotion of protective factors and strengths is an important piece of the positive psychology movement (Seligman, 2001). But this movement also calls for an increased focus on positive outcomes-on joy, fulfillment, and the development of high talent, deep friendships, and civic engagement (Seligman, 1998). In contrast, the major goal of most youth development programs reviewed is the prevention of behavior problems such as substance abuse, teen pregnancy, violence, and academic failure. Most of the programs strove to maximize normal or acceptable behavior in children and adolescents. The competencies and strengths targeted in these programs appear to have been conceptualized primarily as mediators or protective factors against negative outcomes rather than as qualities that might help children to thrive.
Conclusion

Traditionally, prevention research has been remedial and disorder focused. It has focused on the reduction of risk factors within the individual. The growing field of positive youth development demonstrates that a range of societal problems may be prevented by interventions that focus on developing children's strengths and competencies in a social context. Ultimately, children will benefit most when interventions also strive to create an equally broad range of positive outcomes. It is our hope that future work on positive youth development programs will pursue this endeavor.

References


