

Editorial

Positive Youth Development as a Strategy to Promote Adolescent Sexual and Reproductive Health

Adolescents and young adults in the United States experience negative sexual and reproductive health outcomes, such as sexually transmitted diseases, HIV/AIDS, and pregnancy, at alarmingly high rates. Approximately 745,000 females younger than 20 years of age become pregnant every year. Birth rates among adolescents 15–19 years of age increased 3%, from 2005 to 2006—the first increase since 1991 [1]. One in four (26%, 3.2 million) young women between 14 and 19 years of age in the United States is infected with at least one of the most common sexually transmitted infections (STIs) [2]. In addition, more than 20,000 males and females 10–24 years of age are living with HIV/AIDS [3].

An essential part of public health is to provide America's youth with accurate, age-appropriate information about sexual risk reduction, the benefits of abstaining from sex, teen pregnancy, HIV/AIDS, and STI. A number of sex education programs have been developed and shown to effectively reduce sexual risk behavior [4]. However, there is widespread recognition that exposure to even the most effective sex education program is not enough to promote and sustain healthy adolescent sexual and reproductive health outcomes. Sex education approaches alone have short-lived and moderate effects on adolescent sexual risk behavior [5]. Therefore, in addition to evidence-based sex education, adolescents need access to clinical services, and they need efforts that build and/or support other protective factors operating in their family, school, and community [6–9].

Positive youth development (PYD) is a field of study that combines research and programmatic efforts to address other protective factors. PYD seeks to strengthen the adolescent's ability to respond to developmental challenges in effective ways. PYD may provide the motivation needed for adolescents to apply the skills and knowledge learned in sex education programs. PYD programs help youth to

strengthen relationships and skills, embed them in positive networks of supportive adults, and develop a more positive view of their future by providing academic, economic, and volunteer opportunities [6–15].

The Division of Reproductive Health at the Centers for Disease Control and Prevention examined the evidence base for PYD as a strategy to promote healthy adolescent sexual and reproductive health outcomes. To our knowledge, no comprehensive review of this literature is available. Therefore, we partnered with key leaders in the field to compile and synthesize the existing evidence and identify future priorities for research and programmatic activities on the basis of those findings.

Methods

The first challenge was to define PYD program. A wide range of definitions are available in the research and program literature, yet no clear consensus exists. We examined developmental theories, key research syntheses, and program literature to come up with a working definition (Appendix A).

We incorporated into our working definition 12 PYD program goals identified by Catalano et al [10]. The program goals serve as mediating influences through which behavior change occurs. For example, youth with a more positive view of their future, or youth who bond to pro-social adults, may be less likely to take behavioral risks that jeopardize their future goals or harm important relationships (Figure 1). We chose these goals because they identified a wide range of outcomes and the definitions are derived from theory and empirical research. We expect that more goals will be added over time. We then organized the goals into qualities that are commonly used in the practice community: connectedness (bonding), competence (social, behavioral, cognitive, emotional, and moral competence), confidence (self-efficacy, belief in the future, self-determination, clear and positive identity), and character (pro-social norms, spirituality) [13] (Appendix B).

Roth and Brooks-Gunn [12] proposed that PYD programs can be identified by the types of opportunities

The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention, Agency for Toxic Substances and Disease Registry.

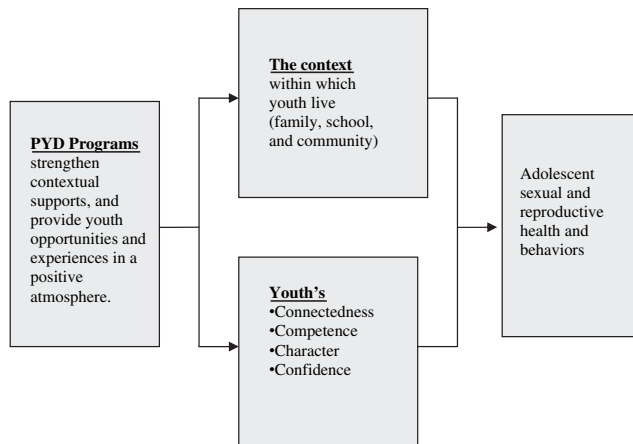


Figure 1. A conceptual framework for positive youth development (PYD) programs promoting adolescent sexual and reproductive health. Adapted from Durlak JA, Taylor RD, Kawashima I, et al. Effects of positive youth development programs on school, family and community systems. *Am J Community Psychol* 2007;39:269–86.

and experiences available to youth. That is, PYD programs seek to strengthen support available to youth in their homes, schools, and communities; help youth build skills; and provide opportunities to engage in real and challenging roles and activities. Another set of PYD program characteristics refers to the atmosphere within which activities are delivered. The atmosphere of the program should support and empower youth, communicate expectations for positive behavior, provide opportunities for recognition, and be stable and relatively long lasting, which allows youth to have adequate time to build relationships and benefit from program activities.

Next, we conducted 2 reviews of the published data. The first review summarized observational research examining the association between the 12 PYD goals and adolescent sexual and reproductive health outcomes, such as initiation of sexual intercourse, use of condoms and/or contraception, number of partners, pregnancy or birth, or having an STI. We were unable to find a review of this scope in the published data and felt that such findings would be necessary to establish the scientific underpinnings of a PYD approach. The second review identified and described the characteristics of PYD programs that attempted to promote adolescent sexual and reproductive health.

Finally, we invited a panel of experts in youth development to review our working definition and preliminary findings from the review of observational and program literature (Appendix C). These experts represented both research and program perspectives. It was important to bring these 2 perspectives together because each had recommended approaches to address common protective factors across development to strengthen youth development while reducing problems. The external experts also provided recommendations for future actions that could be taken in both the research and program arenas.

Summary

This issue presents the results of the reviews of observational and intervention research, and highlights recommendations from the panel of PYD experts.

Four papers summarize the observational research findings. The first paper, by House et al [16], summarizes the findings on social, behavioral, cognitive, emotional, and moral competence. Markham et al [17] summarizes the published data on connectedness or bonding. Gloppen et al [18] describes findings related to confidence (i.e., PYD goals of belief in the future, self-determination, clear and positive identity, self-efficacy). The fourth paper, by House et al [19], addresses character, which includes the PYD goals of pro-social norms and spirituality. A common approach for determining the strength of evidence for whether the PYD outcome predicted adolescent sexual and reproductive health outcomes was used across the 4 reviews. Our findings discuss how PYD outcomes are associated with adolescent sexual and reproductive health, highlight key areas where knowledge gaps exist, and suggest future research and program priorities to expand the evidence base. To our knowledge, observational research has not been summarized using these approaches.

One paper summarizes the PYD intervention research [20]. This synthesis updates the review conducted by Catalano et al [10], but with a focus only on programs in which the evaluation included an examination of the program's effect on at least one adolescent's sexual and reproductive health outcome. It finds that there are, indeed, a growing number of PYD programs, with evidence of promoting adolescent sexual and reproductive health. The paper also confirms some of the earlier published data about the key characteristics of PYD programs.

Finally, Catalano et al [21] set a vision for the future by presenting the research and program actions that will best move the field forward. When identifying future priorities, the authors draw on the lessons learned from years of research, findings from the systematic published data reviews conducted, and expert recommendations from the panel convened in December 2007. They highlight the role PYD can play in promoting adolescent sexual and reproductive health, but also call for an expanded focus to include other benefits of these programs, such as improved academic achievement and reduced levels of substance use and violence.

This journal issue provides an unprecedented compilation of the existing evidence for youth development as a strategy to promote adolescent sexual and reproductive health. Although further confirmatory research is needed, we conclude that there is compelling observational and controlled trial evidence that youth development programs can help youth develop the motivation, skills, and confidence needed to make healthy decisions. By combining youth development approaches with the provision of accurate, age-appropriate, and evidence-based sex education, as well

as access to clinical reproductive health services, the nation is far more likely to achieve sustain and a high degree of sexual and reproductive health among its youth.

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Appendix A. Working Definition of PYD Programs Promoting Adolescent Sexual and Reproductive Health

Youth development has been described as “the ongoing growth process in which all youth are engaged in attempting to meet their basic personal and social needs to be safe, feel cared for, be valued, be useful, and be spiritually grounded, and to build skills and competencies that allow them to function and contribute in their daily lives” [13]. Therefore, PYD programs that promote adolescent sexual and reproductive health are intentional efforts to promote positive developmental outcomes for young people. The potential for realizing positive youth outcomes starts at birth and continues through early adulthood; therefore, it is important to provide the needed supports along the developmental continuum. Family, peer groups, school, and community influence a youth’s development, thus resulting in youth development programs that take place in multiple settings. High-quality youth development programs are characterized by the presence of *goals* that promote positive development, the creation of *opportunities and experiences* that enable young people to nurture their interests and talents, practice new skills, and gain a sense of confidence, competence and belief in the future, and the creation of an *atmosphere* of hope and the valuing of youth.

Goals

PYD program goals should foster one or more of the following developmental outcomes in youth:

- Connectedness—pro-social and bonding.
- Competence—cognitive, social, behavioral, emotional, and moral.
- Character—spirituality and pro-social norms.
- Confidence—self-efficacy, belief in the future, self-determination, clear and positive identity [7, 12, 13].

Opportunities and experiences

Programs seek to strengthen supports available to youth at home, school, and in their community, provide formal and informal opportunities for youth to practice new skills, and nurture their interests and talents [10, 12]. The program strengthens developmental supports, for example, through parenting classes that promote bonding by teaching parents better ways to communicate with, set and reinforce behavioral expectations for their child; teacher training to strengthen teachers' ability to build competencies in youth; modifying the school climate or structure to create more opportunities for pro-social involvement; or changing community attitudes or norms. They help youth build skills (cognitive, social, behavioral, emotional, or moral), for example, through a competency-building curriculum, direct academic instruction, homework help, community service. Programs provide opportunities to engage in real and challenging roles and activities by exposing them to new people, places, and situations. Examples of real and challenging roles include designing, writing, and producing a newspaper, employment, leadership opportunities such as tutoring or peer mediation, decision making in families, schools, and communities, and community service. Examples of activities that broaden youth's horizons include visiting a museum or college campus, engaging in a new sport or recreational activity, cultural activities, and having a pro-social mentor who helps them experience these roles and activities.

Atmosphere

The program creates an atmosphere of hope and an atmosphere where youth feel valued [10, 12]. It does so by being supportive, for example, by encouraging youth to develop a supportive relationship with program staff and adults involved in the program, and encouraging a sense of belonging or bonding with other program participants. The atmosphere of the program is empowering, for example, by encouraging youth to engage in useful roles, practice self-determination, and develop or clarify their goals for the future. The programs convey a belief that adolescents are capable individuals when they communicate expectations for positive behavior. The program can achieve this by defining clear rules for behavior and consequences for infractions, and by fostering pro-social norms and encouraging youth to practice healthy behaviors. Programs can provide opportunities for recognition by rewarding positive behaviors within the program, or by structuring opportunities for public recognition of skills. Programs should be stable and

relatively long-lasting to give youth adequate time to build relationships and benefit from program activities.

Appendix B. Definitions of PYD Program Goals^a

Bonding (connectedness)

For this review, a program was classified as promoting bonding if one or more of its components focused on developing the child's relationship with a healthy adult, positive peers, school, community, or culture.

Social competence

Social competence is the range of interpersonal skills that help youth integrate feelings, thinking, and actions in order to achieve specific social and interpersonal goals. Programs were classified as promoting social competence if they provided training in developmentally appropriate interpersonal skills, and rehearsal strategies for practicing these skills. These skills included communication, assertiveness, refusal and resistance, conflict-resolution, and interpersonal negotiation strategies for use with peers and adults.

Emotional competence

Emotional competence is the ability to identify and respond to feelings and emotional reactions in oneself and others. Five elements of emotional competence have been identified, including knowing one's emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships. Programs were classified as promoting emotional competence if they sought to develop youth skills for identifying feelings in self or others, skills for managing emotional reactions or impulses, or skills for building the youth's self-management strategies, empathy, self-soothing, or frustration tolerance.

Cognitive competence

Cognitive competence includes two overlapping but distinct sub-constructs. The first form of cognitive competence is the "ability to develop and apply the cognitive skills of self-talk, the reading and interpretation of social cues, using steps for problem-solving and decision-making, understanding the perspective of others, understanding behavioral norms, a positive attitude toward life, and self awareness." The second aspect of cognitive competence is related to academic and intellectual achievement. The emphasis here is on the development of core capacities including the ability to use logic, analytic thinking, and abstract reasoning. A program was classified as promoting cognitive competence if it sought to influence a child's cognitive abilities, processes, or outcomes, including academic performance, logical and

^a For more complete definitions and citations to original sources see reference 10.

analytic thinking, problem-solving, decision-making, planning, goal-setting, and self-talk skills.

Behavioral competence

Behavioral competence refers to effective action. Three dimensions of behavioral competence have been identified: “Nonverbal communication (through facial expressions, tone of voice, style of dress, gesture or eye contact), verbal communication (making clear requests, responding effectively to criticism, expressing feelings clearly), and taking action (helping others, walking away from negative situations, participating in positive activities).” Programs were classified as promoting behavioral competence if they taught skills and provided reinforcement for effective behavior choices and action patterns, including nonverbal and verbal strategies.

Moral competence

Moral competence is a youth’s ability to assess and respond to the ethical, affective, or social justice dimensions of a situation. A program was classified as promoting moral competence if it sought to promote empathy, respect for cultural or societal rules and standards, a sense of right and wrong, or a sense of moral or social justice.

Self-determination

Self-determination is the ability to think for oneself, and to take action consistent with that thought. Programs were classified as promoting self-determination if their strategies sought to increase youths’ capacity for empowerment, autonomy, independent thinking, or self-advocacy, or their ability to live and grow by self-determined internal standards and values (may or may not include group values).

Self-efficacy

Self-efficacy is the perception that one can achieve desired goals through one’s own action. Programs were classified as fostering self-efficacy if their strategies included personal goal-setting, coping and mastery skills, or techniques to change negative self-efficacy expectancies or self-defeating cognitions.

Clear and positive identity

Clear and positive identity is the internal organization of a coherent sense of self. The construct is associated with the theory of identity development emerging from studies of how children establish their identities across different social contexts, cultural groups, and genders. Programs were classified as fostering clear and positive identity if they sought to develop healthy identity formation and achievement in youth, including positive identification with a social or cultural sub-group that supports their healthy development of sense of self.

Belief in the future

Belief in the future is the internalization of hope and optimism about possible outcomes. This construct is linked to studies on long-range goal setting, belief in higher education, and beliefs that support employment or work values. Programs which sought to influence a child’s belief in his or her future potential, goals, options, choices, or long range hopes and plans were classified as promoting belief in the future. Strategies included guaranteed tuition to postsecondary institutions, school-to-work linkages, future employment opportunities, or future financial incentives to encourage continued progress on a pro-social trajectory. Belief in the future could also be fostered by programs designed to influence youth’s optimism about a healthy and productive adult life.

Spirituality

Spirituality is defined as “relating to, consisting of, or having the nature of spirit; concerned with or affecting the soul; of, from, or relating to God; of or belonging to a church or religion.” Programs were classified as fostering spirituality if they promoted the development of beliefs in a higher power, internal reflection or meditation, or supported youth in exploring a spiritual belief system, or sense of spiritual identity, meaning, or practice.

Pro-social norms

Programs that foster pro-social norms seek to encourage youth to adopt healthy beliefs and clear standards for behavior through a range of approaches. These may include providing youth with data about the small numbers of people their age who use illegal drugs, so that they decide that they do not need to use drugs to be “normal”; encouraging youth to make explicit commitments in the presence of peers or mentors, not to use drugs or to skip school; involving older youth in communicating healthy standards for behavior to younger children; or encouraging youth to identify personal goals and set standards for themselves that will help them achieve these goals. Programs were classified as fostering pro-social norms if they used strategies for encouraging youths to develop clear and explicit standards for behavior that minimized health risks and supported pro-social involvement.

Appendix C. Panel of Expert Consultants

Joseph Allen, Ph.D., Professor of Psychology, University of Virginia, Charlottesville, VA.

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