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Resilience Education

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Resilience Education

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Abstract and Keywords

As a primary learning and social environment for most children, schools have tremendous potential to, and responsibility for, promoting resilience and well-being in children. This chapter reviews the rationale for focusing on resilience in education and illustrates some of the ways that schools can promote resilience in young people. Although resilience education can also encompass academic or educational resilience, the authors focus primarily on the power of schools to promote students' social and emotional well-being and provide examples from their team's work on school-based resilience and positive psychology interventions. As they hope to show, resilience education holds great promise in promoting the well-being of all students.

Keywords: resilience, positive youth development, prevention, well-being, positive education, positive psychology, children, adolescents, youth, schools, education

The aim of education should always transcend the development of academic competence. Schools have the added responsibility of preparing fully-functioning and resilient individuals capable of fulfilling their hopes and their aspirations. To do so, they must be armed with optimism, confidence, self-regard, and regard for others, and they must be shielded from unwarranted doubts about their potentialities and capacity for growth.

Pajares (2009, p. 158)

Introduction

ONE of the most striking findings in developmental and clinical research is that children who have been exposed to trauma, poverty, community violence, and other serious risk factors often reach, and sometime surpass, normal developmental milestones. Research has identified many qualities in individuals and their social environments that promote resilience, and many of these qualities are malleable. That is, individuals can learn specific

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skills that contribute to resilience, and social environments can be structured in ways that promote resilience.

As a primary learning and social environment for most children, schools have tremendous potential to—and responsibility for—promoting resilience and well-being in children. This chapter reviews the rationale for focusing on resilience in education and illustrates some of the ways that schools can promote resilience in young people. Although resilience education can also encompass academic or educational resilience, we focus primarily on (p. 610) the power of schools to promote students' social and emotional well-being and provide examples from our team's work on school-based resilience and positive psychology interventions. As we hope to show, resilience education holds great promise in promoting the well-being of all students.

Resilience

Many children who are exposed to harmful experiences and environments are remarkably resilient (Luthar, Cicchetti, & Becker, 2000; Masten, 2001). These children do not suffer the negative consequences that are expected for them. They adapt. Many of them thrive.

Such resilience does not imply that risk factors such as poverty, violence, and trauma are benign or should be accepted. The phenomenon of resilience does imply, however, that psychologists' understanding of children's development has been deficient. For many decades, clinical and developmental research focused on how children are damaged by adversity and ignored the capacity for positive development and growth even in the worst circumstances.

Resilience has been defined as a “dynamic process of positive adaptation or development in the context of significant adversity” (Luthar et al., 2000, p. 543). Youth who show resilience display “good outcomes in spite of serious threats to adaptation or development” (Masten, 2001, p. 228). As researchers have expanded their focus from predicting negative outcomes to also predicting positive outcomes and adaptation, they have discovered many qualities within people, families, and communities that can promote resilience. Although some qualities are especially important for children in high risk contexts, many promote children's social and emotional well-being in general (Collaborative for Academic, Social, and Emotional Learning (CASEL), 2003; Goleman, 1995; Luthar, 2006; Zins, Bloodworth, Weissberg, & Walberg, 2004). Fig. 46.1 lists many of these promotive qualities.

Some of the personal strengths and skills that are frequently mentioned across the resilience literature include: emotional competence (emotion awareness and regulation), self-regulation (impulse control, goal setting, self-discipline, perseverance), problem-solving and decision-making (being able to think creatively, flexibly, and realistically about the problems one encounters), social awareness (perspective taking, empathy, respect for others), social competence (communication, social engagement, teamwork, conflict management, giving and receiving help), self-efficacy, optimism, and a sense of purpose or

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meaning (for reviews, see Benard, 2004; CASEL, 2003; Goleman, 1995; Luthar, 2006; Reivich & Shatté, 2002; Zins et al., 2004). For example, personal skills and strengths such as self-control, problem-solving, and optimism are linked to higher academic achievement, to more positive relationships, and to greater emotional well-being (Duckworth & Seligman, 2005; Fincham & Bradbury, 1993; Seligman, 1991). These personal qualities include many of the character strengths identified in recent research in positive psychology (Park & Peterson, 2006; Peterson & Seligman, 2004).

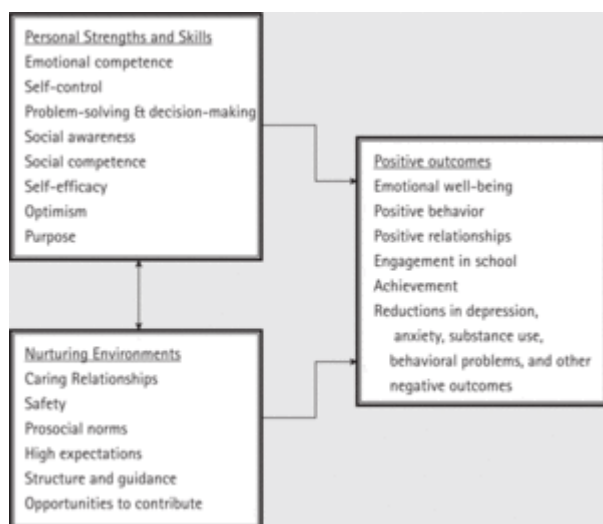


Fig. 46.1 Personal and social qualities that promote resilience.

Family, school, and community environments also promote resilience. Some of the environmental factors that foster resilience include caring relationships, safety, prosocial norms, high expectations, structure and guidance, and opportunities to contribute or to matter (Benard, 2004; Benninga, Berkowitz, Kuehn, & Smith, 2006; CASEL, 2003; Eccles, Flanagan, Lord, Midgley, Roeser, & Yee, 1996; Luthar, 2006; Reivich & Shatté, 2002; Wang, 2009; (p. 611) Zins et al., 2004). Students with strong connections to school and to family are less likely than their peers to develop depression and to engage in substance use, violence, and other risky behaviors (Benard, 2004; Resnick et al., 1997; Rutter, Maughan, Mortimore, & Ouston, 1982; Wang, 2009). These connections may be especially important to children who are growing up in communities plagued by poverty and violence (Rutter et al., 1982; Wang, Haertel, & Walberg, 1994).

Positive environments and adaptive personal characteristics can be mutually reinforcing. Nurturing environments encourage the development of children's strengths. For example, teachers who convey high expectations and who help students to reach their potential promote optimism, self-efficacy, and persistence in their students. Children's strengths also shape their environments. Students who can control impulses help to create a safe school environment. Students who are kind help to create a nurturing and supportive environment. Over time, these different personal and environmental qualities interact and work together to promote resilience. Some qualities are linked to specific outcomes or

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are especially important in particular contexts. Thus, Fig. 46.1 presents a simplified model.

Research suggests that the characteristics of children's social environments are stronger predictors of resilience than children's personal qualities. In her review of the last 50 years of resilience research, Luthar (2006) concludes:

The first major take-home message is this: Resilience rests, fundamentally, on relationships. The desire to belong is a basic human need and positive connections with others lie at the (p. 612) very core of psychological development; strong, supportive relationships are critical for achieving and sustaining resilient adaptation. (p. 42)

This calls to mind Peterson's three-word summary of positive psychology research: "Other people matter" (Peterson, 2006, p. 249). Peterson also reminds us that "we are all the other people who can matter so much" (Peterson, 2008, np).

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The role of schools

Next to family, school is the most important social environment for most children. In the USA, more than 94,000 public schools provide education to more than 47 million students (Snyder & Hoffman, 2003). An additional 28,000 private schools provide education to more than 5 million children (Snyder, Tan, & Hoffman, 2006). Children and teens spend, on average, more than 30 hours a week at school (Juster, Ono, & Stafford, 2004). Because of its central role in children's development, formal education has enormous potential to promote resilience. Rutter and colleagues (1982) emphasize this potential in the opening to their ground breaking study of schools in the UK:

For almost a dozen years during a formative period of their development, children spend almost as much of their waking life at school as at home. Altogether, this works out to some 15,000 hours (from the age of five until school leaving) during which schools and teachers may have an impact on the development of children in their care. (p. 1)

Schools can promote resilience by providing nurturing environments and by cultivating students' personal skills and strengths. Schools that provide children with safe and caring learning environments make a profound difference in children's lives, especially when these qualities are lacking or inconsistent in children's communities or families (Rutter et al., 1982; Wang et al., 1994). Schools are an ideal place for children to learn self-regulation and social skills such as empathy and teamwork that are essential for positive relationships and achievement. And because interpersonal and academic challenges are a regular part of life for most students at one time or another, there is ample opportunity to teach coping and problem solving skills in schools. Ultimately, education that focuses on

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resilience has the potential to promote students' growth and well-being both in and out of school, and long after students' participation in formal education has ended.

Overlap with other educational initiatives

Resilience education (education that aims to foster students' resilience) overlaps with educational initiatives that promote good character (Berkowitz & Bier, 2004; Elias, Wang, Weissberg, Zins, & Walberg, 2002) and social and emotional learning (CASEL, 2003, 2007), as well as psychosocial interventions that aim to prevent psychopathology, substance use, and other negative outcomes (National Research Council and Institute of Medicine, 2009; Weissberg, Kumpfer, & Seligman, 2003). For example, CASEL defines social and emotional learning as "the process of acquiring the skills to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive (p. 613) relationships, make responsible decisions, and handle interpersonal situations effectively" (CASEL, 2007, p. 1). Similarly, Elias and colleagues define social emotional learning as "the process through which we learn to recognize and manage emotions, care about others, make good decisions, behave ethically and responsibly, develop positive relationships, and avoid negative behaviors" (Elias et al., 1997, as cited in Zins et al., 2004, p. 4). These behaviors and skills are central to resilience as well as to social and emotional well-being more generally. Resilience education is a component of "positive education" (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009) and of positive youth development (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004).

The need for resilience education

Many psychologists and educators have argued that resilience skills are more important for children today than ever before (e.g., Greenberg et al., 2003). The number of children exposed to major adversity is staggering. In the USA, close to 50% of youth are exposed to violence each year, including 19% who witness a violent act within their community (Finkelhor, Turner, Ormrod, Hamby, & Kracke, 2009). Nearly 10% of youth witness violence between family members each year and nearly 10% of children are victims of physical or emotional abuse or neglect (Finkelhor et al., 2009). About 20% of children under 18 live in poverty (US Census Bureau, 2009). Children who live in poverty are more likely to experience other family and community risk factors such as violence, parental depression, parental conflict, abuse, and neglect (Evans, 2004). They are more likely than children from middle class or affluent communities to attend struggling schools and to be exposed to pollution and other environment risk factors (Evans, 2004). Thus, multiple risk factors converge in the lives of many children.

Psychological and behavioral difficulties are also very common among children. In a given year, about 20% of children will have diagnosable psychological disorders, such as depression or anxiety, that create at least mild impairment in functioning (US Department of Health and Human Services, 1999). Each year, about 5–9% of children are classified as having a "serious emotional disturbance" (US Department of Health and Human Services, 1999). Many adolescents experience elevated symptoms of depression, anxiety, and other

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psychological difficulties that do not reach the threshold for clinical diagnoses (Nolen-Hoeksema, Girgus, & Seligman, 1986). In a recent Centers for Disease Control and Prevention study, 28.5% of youth reported feeling so sad or hopeless that they stopped their normal activities at some point in the past year, and 11.3% had made a plan to commit suicide (Centers for Disease Control and Prevention, 2008).

There is some evidence that rates of psychological problems have increased during the last century. For example, research by Twenge and colleagues indicates that narcissistic and antisocial personality traits, depression, and anxiety have increased substantially over the last 50–70 years (Twenge, 2000; Twenge & Foster, 2010; Twenge et al., 2010). These findings are controversial; other research suggests that the rates of depression and other disorders have not increased substantially (Costello, Erkanli, & Angold, 2006). Nevertheless, mental health and public health experts agree that psychological and behavioral difficulties are extremely prevalent among school-age youth, especially during adolescence. Adolescents who develop depression and substance dependence are at high risk for future episodes and the associated difficulties throughout adulthood (Harrington, Fudge, Rutter, Pickles, & Hill, (p. 614) 1990; Kim-Cohen et al., 2003). Thus, programs that promote resilience during adolescence could have an enormous impact across a life time.

Teaching resilience broadly

Relevant to all students

Recent studies suggest that prevention programs that target youth at high risk are particularly beneficial (Conduct Problems Prevention Research Group, 2007; Horowitz & Garber, 2006; Stice, Shaw, Bohon, Marti, & Rohde, 2009), but educational initiatives that aim to reach all children are also important. Many risk factors are common and many children (even those believed to be at “low risk”) will experience significant stressors or distress at some point during their school years. In addition, our knowledge of risk factors is incomplete. Significant risk factors may exist and even be common in environments that have traditionally been viewed as “low risk.” For example, recent research suggests that many youth from backgrounds that are traditionally considered to be privileged are at high risk for anxiety, substance use, and other problems, perhaps because of the intense pressures to achieve and limited time with parents (Luthar & Latendresse, 2005).

Applicable to a range of challenges

When people think about resilience, major adversities typically come to mind, for example, the child who performs well in school and who develops close connections to others despite enduring years of abuse and neglect. While such outcomes clearly signify resilience, our research team conceptualizes resilience more broadly. The process of resilience is also reflected in positive adaptation in response to everyday stressors (e.g., conflicts with peers, low marks in school) and common life transitions (e.g., the birth of a sibling, the break-up of relationship during adolescence). This broader definition appears justified given the evidence that both major life events and daily stressors contribute to depression and other difficulties (Bockting, Spinhoven, Koeter, Wouters, & Schene, 2006;

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Kwon & Laurenceau, 2002; Libby & Glenwick, 2010; Sund, Larsson, & Wichstrom, 2003; Thompson et al., 2007). Over time, responses to everyday events can develop into habits that either promote or detract from well-being, relationships, and ability to reach one's goals.

Consistent with comprehensive education

Resilience education is consistent with a broad view of the purpose of education, as preparing youth to become lifelong learners who are productive, caring, and responsible members of the community (Cohen, 2006; Elias et al., 2002; Seligman et al., 2009). This broader view of education is supported by many parents and educators. For example, recent surveys indicate that two-thirds of adults in the USA believe that schools should be responsible for dealing with the social, emotional, and behavioral needs of their students (Rose & Gallup, 2007). About 85% want schools to focus more on the prevention of drug and alcohol abuse (Rose & Gallop, 2000). Respondents also gave high ratings to educational goals such as preparing youth to become responsible citizens, improving social conditions, enhancing happiness, (p. 615) and enriching people's lives (Rose & Gallup, 2000). More than 70% of respondents wanted schools to focus more on promoting racial and ethnic understanding and tolerance (Rose & Gallup, 2000). Creating the conditions necessary to meet these expectations should be a focus of our educational system.

Approaches and findings

Two general approaches to enhancing resilience are through: (1) teaching skills and cultivating strengths and (2) promoting a nurturing school climate or culture. Initiatives that focus on teaching resilience skills and cultivating strengths often use curricula and formal instruction, explicit modeling, and/or coaching. Initiatives that focus on school climate may focus on instructional practices; school rules, policies, goals, and aspirations; support networks such as counseling and advisory; and increased collaborations with families and with individuals and organizations in the community that serve youth (Bernard, 2004; Cohen, McCabe, Michelli, & Pickeral, 2009). Several approaches may be combined to weave resilience education into the fabric of the school.

Research findings

There is considerable evidence for benefits from curricula and other school-based interventions that are designed to promote resilience in youth. For example, the Coping with Stress Course, which teaches coping and problem solving to adolescents with elevated symptoms of depression, prevents the onset of depressive disorders (Clarke et al., 1995). The Social Decision Making and Social Problem Solving Program, a curriculum that teaches self-control, social awareness, problem-solving, and decision-making, increases prosocial behavior and reduces behavioral problems in students (Elias, 2004). The Promoting Alternative THinking Strategies (or PATHS) program, which teaches emotional awareness, social competence, and problem-solving, improves social skills and prevents behavior problems and symptoms of anxiety and depression (Greenberg, Kusché, & Riggs, 2004). The Seattle Social Development program, a program for 1st through 6th

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graders that promotes a positive classroom environment and teaches social competence and problem-solving skills, prevents aggression, violence, substance use, and other high-risk behavior through adolescence (Hawkins, Smith, & Catalano, 2004).

Programs that teach resilience and promote students' social and emotional development have a wide range of positive effects. CASEL recently reviewed the relevant research literatures for: (1) universal programs (often delivered to whole classrooms), designed for implementation with all students, (2) indicated programs (typically small group interventions), designed for students who are showing early signs of behavioral or emotional problems, and (3) after-school programs (Payton et al., 2008). Together these reviews included more than 300 studies with about 300,000 students. On average, these programs significantly improved students' emotional well-being, social skills, classroom behavior, attitudes about school, and achievement. All three types of programs (universal, indicated, after-school) were beneficial relative to control. These findings are consistent with those of other recent reviews of school and community programs designed to promote social and emotional development and prevent psychological and behavioral problems (e.g., Catalano et al., 2004; Greenberg et al., 2003; Zins et al., 2004).

(p. 616) The CASEL review also found that children from different geographic, socioeconomic, and racial, ethnic, and cultural backgrounds benefited from school-based programs. Findings from CASEL's reviews of universal and indicated programs suggest that these programs are effective when delivered by school staff, and not just by external research teams that may take the lead in developing and evaluating them. This is a promising finding that suggests that programs that promote social and emotional skills can be effectively incorporated into regular educational practice.

Benefits for learning and achievement

Despite the common concern that devoting resources to students' social and emotional well-being may detract from efforts to promote student achievement, recent reviews confirm what many teachers and resilience researchers have long argued: the personal and environmental qualities that promote social and emotional resilience also promote students' learning and engagement in school. For example, self-regulation and optimism predict success at school, even when controlling for past achievement or scores on intelligence tests (Duckworth & Seligman, 2005; Schulman, 1995). Students who feel more connected to school have better attendance and higher achievement (Christenson & Havsy, 2004; Goodenow, 1993; Gottfredson & Gottfredson, 1989). Indeed, these personal and environmental factors may be at least as important to achievement as intellectual capacity alone (Lopes & Salovey, 2004). For example, Duckworth and Seligman (2005) found that self-discipline was a stronger predictor than IQ of adolescents' grades. Sternberg and colleagues (2001) estimate that IQ accounts for less than 30% of grades, job performance, and other real-world outcomes, meaning that other individual and environmental factors play a crucial role in achievement.

Attending to social and emotional well-being may also prevent disengagement from school, which is common in adolescence. Children's enjoyment of school often declines during middle school and high school (Eccles et al., 1996). In the USA, more than 10% of students leave school without obtaining a high school diploma or its equivalent. Only about 74% of students graduate from high school on time (Snyder & Tan, 2005). Some students are pulled away from school by work, family, and other pressures. Research suggests, however, that factors that push students away (such as difficulties getting along with teachers and peers) are even more important (Christenson & Havsy, 2004; Jordan, McPartland, & Lara, 1999).

This disengagement coincides with changes in school environment that make it difficult to maintain a positive school culture. For example, as children make the transition from elementary school to middle school, they encounter larger schools, larger classes, more distant relationships with teachers and peers, and feedback systems that focus on performance relative to others rather than effort and self-improvement (Eccles et al., 1996). It is not surprising that students' perceptions of school become more negative during this time. In a recent survey of youth in California, 61% of 5th graders reported their schools provided caring relationships and 62% reported that their schools provided high expectations. By 11th grade, these numbers had dropped to 29% and 35%, respectively. Few students across all grades reported meaningful opportunities to participate (Benard & Slade, 2009). Thus, the social qualities that promote resilience appear to be lacking in many high schools. Programs that promote positive connections to school can enhance engagement in learning. For example, the Check & Connect program, which provides caring mentors from within the school (p. 617) community to students at risk for school failure, reduces students' behavioral problems and suspensions, and increases attendance and achievement (Christenson & Havsy, 2004). Programs that promote students' social and emotional skills can also enhance their academic achievement (CASEL, 2007; Elias et al., 2002; Greenberg et al., 2003; Seligman et al., 2009; Zins et al., 2004). For example, several substance use and violence prevention programs that promote problem-solving, coping, and social competence also improve grades, graduation rates, standardized test scores, as well as specific reading, math, writing, and cognitive skills (Substance Abuse and Mental Health Services Administration, 2009; Wilson, Gottfredson, & Najaka, 2001). The CASEL reviews found significant benefits on achievement for universal, indicated, and after-school programs (Payton et al., 2008).

Two Programs for Children and Adolescents

For the past 15 years, our research team has been developing, evaluating, and (more recently) disseminating school-based interventions designed to promote resilience and well-being in children and adolescents. Much of this work has focused on two types of interventions: programs designed to promote resilience by teaching problem solving and coping skills, and programs intended to increase students' positive emotions, personal

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strengths, and sense of meaning and fulfillment. Here we briefly review two of our programs for school-age youth.

The Penn Resiliency Program

The Penn Resiliency Program (PRP; Gillham, Reivich, & Jaycox, 2008) is a school-based, group program for late elementary through middle-school age students (approximately 10–14 years old). PRP grew out of cognitive behavioral theories and interventions used to treat psychological disorders, especially depression (Beck, 1976; Beck, Rush, Shaw, & Emery, 1979; Ellis, 1962; Seligman, 1991).

PRP is delivered in a small group format by teachers and counselors. The program uses a variety of teaching methods. Group leaders introduce concepts and skills through skits, discussions, and didactic instruction. Students then practice these skills through role plays and other hands-on activities, first using hypothetical scenarios. Group leaders then help students apply the skills to their own experiences. Each lesson ends with assignments that encourage students to use the skills in real life situations. For a detailed description of PRP see Gillham, Brunwasser, and Freres (2008).

PRP fosters several personal strengths and skills that are related to resilience (Reivich & Gillham, 2010; Reivich & Shatté, 2002):

- Emotional competence—being able to identify, label, and express emotions, and control emotions when appropriate.
- Self-control—being able to identify and resist impulses that are counterproductive for a given situation or for reaching long-term goals.

(p. 618)

- Problem-solving and decision-making—especially the skills of flexibility (being able to consider a range of possible interpretations, to see situations from multiple perspectives, and to generate a variety of solutions to problems) and judgment (being able to make informed decisions based on evidence).
- Social awareness—being able to consider others' perspectives and empathize with others.
- Social competence—being able to work through challenges in important relationships.
- Self-efficacy and realistic optimism—confidence in one's abilities to reach goals and to identify and implement coping and problem-solving skills that are suited to a situation.

PRP includes two major components: cognitive skills and problem-solving. The cognitive component teaches a variety of skills that help students to become more aware of their emotions and to think more flexibly and accurately about problems. Ellis's ABC model is central to this component: when Activating events (or adversities) occur, our *Beliefs* or interpretations largely determine the event's emotional and behavioral *Consequences*.

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Thus, in the same situations, different sets of beliefs may lead people to respond in very different ways.

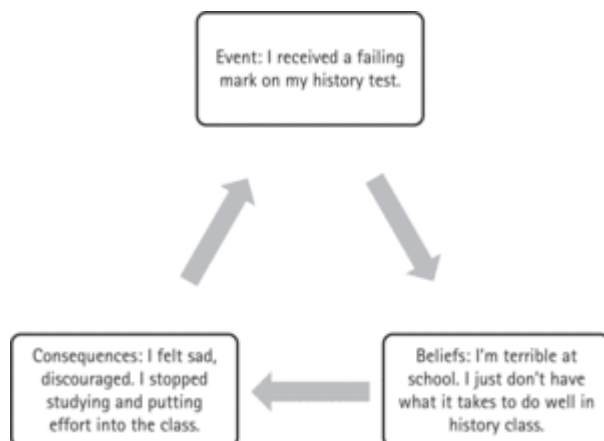


Fig. 46.2 A negative self-fulfilling prophecy in an achievement context.

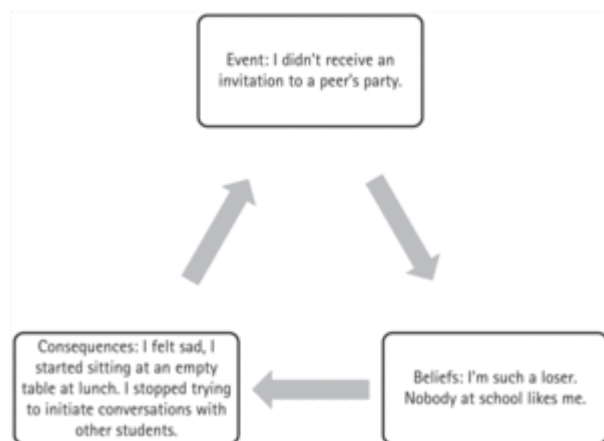


Fig. 46.3 A negative self-fulfilling prophecy in a social context.

In PRP, students learn to identify their emotional experiences, to monitor their interpretations (or “self-talk”), and to identify habitual patterns in their thinking (e.g., pessimism) that may be inaccurate or maladaptive. A major goal of the cognitive component is to interrupt self-defeating thought-behavior patterns. Pessimistic beliefs (e.g., “I’m stupid”) often lead to maladaptive behaviors (e.g., not studying), which then increase the likelihood of negative outcomes (e.g., poor grades). The negative outcomes then reinforce the person's initial pessimistic belief, creating a self-fulfilling prophecy. These downward spirals are often visible in achievement contexts but play an important role in social interactions as well (see Figs 46.2 and 46.3). Once they are able to identify self-talk, students learn to challenge negative or maladaptive interpretations by evaluating the accuracy of their beliefs and by (p. 619) considering alternative interpretations. These twin skills, accuracy and flexibility, are at the heart of PRP.

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Our goal is not simply to swap a pessimistic thinking style with an optimistic one. Rather, we want to help students detect patterns in their self-talk, feelings, and behaviors that may be counterproductive. Often, the skills of flexibility and accuracy lead to greater optimism. But sometimes they can lead students to recognize that they are at least partly responsible for a problem. By learning to interpret problems more accurately, students can begin to solve them. The cognitive component can also promote social awareness as students apply their knowledge of emotions and self-talk to understand the perspectives of others.

The second component of PRP teaches a variety of problem-solving skills. Students learn to set realistic goals and subgoals and to develop plans for reaching them. Assertiveness training helps students to express their needs respectfully without escalating conflicts. The negotiation skill incorporates assertiveness as well as active listening and creative brainstorming to find solutions that work for both parties. PRP teaches a five-step approach to problem-solving that is based on Dodge's and Crick's (1990) social information processing model and incorporates many of the other PRP skills. When problems arise, students are encouraged to: (1) stop and think, especially about their goals, (2) evaluate the situation (look for clues, consider others' perspectives), (3) brainstorm about solutions creatively (generate a list of possible solutions), (4) decide what to do (consider the pros and cons of different options and how they affect short- and long-term goals), and (5) go for the goal (enact the solution and evaluate the outcome; if the solution didn't work try the process again). The creative brainstorming and decision-making steps apply the cognitive skills (e.g., flexibility, accuracy, and critical thinking) learned in previous lessons to one's outward behavior.

Finally, PRP also teaches skills for managing difficult emotions and for coping with negative events that are beyond one's control. Students share their personal methods of coping (p. 620) with intense emotions and also learn new skills, like deep breathing and relaxation techniques. PRP emphasizes the importance of seeking help and support from friends and family. Although the second component focuses on behavioral skills (or what students can do when problems happen), students continue to apply the cognitive skills throughout the program. For example, they examine and challenge beliefs that can interfere with effective problem-solving, that fuel procrastination, or that lead to aggression or passivity and interfere with assertiveness. The problem-solving and coping skills target behaviors that often contribute to downward spirals (see Figs 46.2 and 46.3).

In addition to teaching specific cognitive, coping, problem solving, and social skills, PRP's group format also provides opportunities for students to receive support from teachers and for students to support and help each other. Thus, although PRP primarily develops personal skills and strengths, it may also help to create a nurturing social environment.

Research findings

PRP has been evaluated extensively. Recent meta-analytic reviews identified 19 controlled studies of PRP, including 17 that evaluated PRP's effects on depression and 15 that evaluated PRP's effects on hopelessness, pessimism, and other cognitive styles linked to

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depression (Brunwasser & Gillham, 2008; Brunwasser, Gillham, & Kim, 2009). Together, these studies evaluated PRP with more than 2000 children from a wide variety of geographic, cultural, and socioeconomic backgrounds. Findings from these reviews indicate that PRP significantly improves thinking styles. Students who participated in PRP were more optimistic than controls and these effects endured for at least 1 year (the last assessment examined in the meta-analysis). Similarly, PRP significantly reduced and prevented depressive symptoms and these effects also endured for at least 1 year. Although fewer studies have examined PRP's long-term effects, findings from some of these studies are promising. For example, the first study of PRP found that the benefits on depression lasted for 2 years and the benefits on optimism lasted for at least 3 years (Gillham & Reivich, 1999; Gillham, Reivich, Jaycox, & Seligman, 1995). A few recent studies have found positive effects on anxiety symptoms and behavioral problems (for a review, see Gillham, Brunwasser, & Freres, 2008). Research on PRP's effects on academic achievement is underway. A similar resilience program developed by our team for older adolescents and young adults has also been found to improve optimism and reduce and prevent symptoms of anxiety and depression (Seligman, Schulman, DeRubeis, & Hollon, 1999; Seligman, Schulman, & Tryon, 2007).

The high school positive psychology program

Like many programs designed to promote resilience and positive youth development, PRP focuses extensively on students' responses to setbacks and challenges. Our team's high school positive psychology curriculum (Reivich et al., 2007) is based on recent work in positive psychology (Peterson & Seligman, 2004; Seligman, 2002) which offers an alternative, complementary approach to resilience. Positive psychology highlights the importance of enhancing well-being more broadly, and not simply in response to stressors. Schools can also promote resilience by helping students to develop close relationships, to identify and use their strengths, to experience positive emotions, and to engage in activities that are meaningful to them. Interventions that target these outcomes improve life satisfaction and (p. 621) reduce depression (Seligman, Rashid, & Parks, 2006; Seligman, Steen, Park, & Peterson, 2005; Sin & Lyubomirsky, 2009). Ultimately, we believe that educational initiatives that integrate both perspectives will be most helpful.

The high school positive psychology curriculum is based largely on Seligman's (2002) three pathways to happiness. The program includes three units: The Pleasant Life, the Engaged Life, and The Meaningful Life. Many of the program's skills and activities have been used and tested in other positive psychology interventions (e.g., Seligman et al., 2005, 2006). The Pleasant Life unit focuses on increasing positive emotion. Lessons focus on savoring, gratitude, and optimism. For example, a gratitude lesson encourages students to think about people who have helped them but whom they have not yet thanked. Students write a letter expressing gratitude and are encouraged to share it in person. A lesson on "counting our blessings" encourages students to think about the good things that happen each day and to log them in a journal each evening. These activities can counter negative thinking styles that are targeted in PRP and so they are likely to reduce

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negative emotions. But they go far beyond this. They actively promote positive emotions like contentment and joy, and may deepen interpersonal relationships.

The Engaged Life unit is the largest. It promotes strengths (e.g., kindness, creativity, perseverance, integrity) that are valued across time and throughout history (Dahlsgaard, Peterson, & Seligman, 2005; Peterson & Seligman, 2004). The program encourages students to identify their personal (or signature) strengths and to use them more in their everyday lives. Students identify their strengths through several activities including completing the Values in Action Inventory of Strengths for Youth (Park & Peterson, 2006), and by reflecting on past experiences when they were “at their best.” They develop action plans for using signature strengths and for developing other strengths that are important to them. The family tree of strengths activity encourages students to interview family members and find out about strengths that run through their family tree.

During the Meaningful Life unit, students reflect on life purpose and meaning. Rather than focus on meaning in the abstract sense (i.e., What is the meaning of life?), teachers encourage students to think about what makes life meaningful for *them*. Teachers engage students in discussions about meaning, and students read relevant passages from literature and from the personal reflections of others. We've used excerpts from *The Meaning of Life* (Friend & the Editors of *Life*, 1991), which contains short essays by philosophers, writers, artists, politicians, spiritual leaders, sports figures, comedians, and others. Students reflect on how these different perspectives fit with their own views on life meaning. Students and their parents then complete a back-and-forth meaning journal in which they dialogue about the meaning of life. In our experience, students' discussions of meaning typically center on the importance of connections to others, institutions, and values that are larger than the self.

The positive psychology curriculum is designed to be delivered by teachers in a small- or large-class format. The program uses a variety of teaching methods. Teachers introduce concepts and skills through in-class activities and discussions. Most lessons end with assignments that encourage students to apply the positive psychology concepts and strategies in their everyday lives. Students write reflections about their experiences when using the positive psychology strategies. Lessons typically begin with a discussion of students' experiences and reflections.

We developed our positive psychology program to target well-being broadly, rather than resilience specifically. But we now believe that these concepts and skills are as essential to (p. 622) resilience as the skills covered in PRP. By promoting students' capacity for positive emotions, to use strengths such as kindness, teamwork, humor, and creativity, and to experience strong connections with other people and with purposes outside the self, positive psychology provides a strong foundation that can help youth cope with adversity. Research indicates that positive emotions enhance problem-solving (Fredrickson, 2001). Also, many studies over many decades document the power of close relationships to protect against depression and other psychological and physical health problems (Leavy, 1983; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). The positive psychology program aims to pro-

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mote upward spirals; it promotes flourishing by helping students to build upon what they do well.

Research

We have nearly completed our first scientific evaluation of the high school positive psychology program. In that study, 347 9th grade students were randomly assigned to regular grade Language Arts classes or to Language Arts classes that included the positive psychology curriculum. We followed students for 4 years, until graduation from high school. Preliminary analyses examining effects through students' 11th grade year suggest two major areas of benefit (Gillham, Linkins, & Reivich, 2009; Seligman et al., 2009). The positive psychology program improved students' social skills (e.g., empathy, cooperation, assertiveness, and self-control) according to both teachers' and mothers' reports. It also improved students' engagement in school, according to teacher reports. The findings on teachers' report measures are especially encouraging. Teachers who completed questionnaires did not deliver the curriculum and were not informed about students' condition assignments. Thus, they are unlikely to be biased by an awareness of students' participation in the positive psychology program. There was no overall effect on students' achievement, but follow-up analyses indicated that the positive psychology program significantly improved Language Arts achievement among students with average and low (but not high) levels of achievement at baseline. Contrary to our expectations, we found no effects on students' symptoms of depression or anxiety although other positive psychology interventions have been successful at reducing depressive symptoms (Seligman et al., 2006; Sin & Lyobomirsky, 2009).

School community and culture

Curricula like PRP and our high school positive psychology program appear to promote well-being in students. Such programs are likely to be most effective when delivered as part of a school's comprehensive focus on social and emotional well-being and resilience. Reviews of research on positive youth development, social and emotional learning, prevention, and character education converge on the conclusion that isolated curricula are not as helpful as approaches that are embedded into school culture and delivered over many years in a child's life (e.g., CASEL, 2003; Gottfredson, 2000). This finding is consistent with research documenting the importance of social contextual factors in promoting resilience in youth (Luthar, 2006).

Recently, our team's work has increasingly focused on promoting resilience through the classroom, school, and other contexts where children live. In our trainings for teachers and counselors who deliver our programs, we first encourage teachers to apply the concepts and skills to their own lives so that they can experience first-hand the benefits of the resilience (p. 623) and positive psychology skills. We hope that our approach to training teachers leads to a strong personal connection with the concepts and skills, increasing the likelihood that they will be effective models for students both in and out of the classroom. In some of our school collaborations, we are consulting with teachers, counselors, and other staff to develop curricula for all ages and to infuse resilience education

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into everyday interactions and instruction across disciplines. Integrating resilience and positive psychology skills explicitly through formal instruction also helps to create common language and practices among educators and students that contribute to a culture of resilience education.

Given the daily stress and challenges they face, teachers who are resilient and use their strengths are likely to be more effective (Stanford, 2001). Even in the absence of formal resilience curricula for students, supportive work environments and professional development for teachers can go a long way in the promotion of resilience and learning in the students that they teach. When schools support teachers in their own social and emotional development, for example, those teachers can more effectively model social and emotional skills for students (Elias et al., 1997). A teacher's optimism can motivate a child to persist through a challenging assignment; a teacher's own flexible thinking about problems can encourage students to think through conflicts from multiple perspectives. In addition, teachers who can regulate their own impulses and emotions may be skilled in classroom management and creating environments conducive to student learning and well-being. Indeed, teachers who approach classroom management with respect for students' perspectives and appreciate the importance of group cohesion ultimately have more time for academic subjects throughout the school year (Elias et al., 1997).

Both life satisfaction and grit, or perseverance toward long-term goals, determine teacher effectiveness as measured by student learning (Duckworth, Quinn, & Seligman, 2009). The hard work of gritty teachers pays off in terms of student learning and achievement. Duckworth and colleagues also suggest that "teachers higher in life satisfaction may be more adept at engaging their pupils, and their zest and enthusiasm may spread to their students" (p. 545). More broadly, a positive school culture that cultivates strengths enables teachers to bring the best of themselves to their professions. As a result, increased teacher engagement can promote students' learning in the classroom as well as foster the meaningful teacher-student relationships that nurture positive development in students.

Recent reviews of social and emotional learning programs highlight the importance of strengthening ties between home and school, as well as between school and the larger community. We have developed a resilience program for parents that teaches them the core PRP skills so they can apply them in their own lives and support their children's use of these skills. Several activities in the positive psychology curriculum (e.g., family tree of strengths, meaning journals) create opportunities for students and parents to work together, and for parents to provide guidance as students identify their personal strengths and what makes life most meaningful. Many parents appreciate the opportunity to share their values so openly with their children. Students' reflections suggest that they are grateful for the deeper connection to parents and the life lessons learned.

Other activities help to strengthen connections to the larger community. For example, in the paragon of strengths activity, students interview members of the larger community who exemplify different strengths. Community service projects help youth put many of their strengths to use. These projects can provide youth with meaningful opportunities to

connect with others and make a positive difference in the world. Community service may (p. 624) also lead to long-term benefits in well-being (Bowman, Brandenberger, Hill, Lapsley, & Quaranto, 2010).

Conclusions

Positive psychology and resilience research have identified many qualities of individuals and social contexts that enable people to adapt and to thrive in their everyday lives and when confronted with adversity. Given their central role in students' lives, schools have enormous potential (and, many argue, responsibility) to promote social and emotional well-being and resilience in youth both within and outside of school settings.

Many educators are understandably skeptical of curricula that purportedly foster well-being in students, as many isolated programs—even some that have been implemented widely—either have not been evaluated rigorously or have not shown positive effects. Recent reviews, however, suggest that comprehensive and well-integrated programs do, in fact, contribute to well-being in children and adolescents, and research has identified several programs that can significantly reduce emotional or behavioral problems and dramatically cultivate social skills, strengths, positive relationships, and achievement.

As we have shown, integrating resilience into education through explicit instruction can equip students with the skills needed to rise above and grow from major challenges and daily struggles. Simultaneously, embedding principles of resilience and positive psychology into educational practices can help to create a school climate that contributes to student learning and positive development in non-academic domains. Perhaps now more than ever before, resilience education has the power to help students successfully navigate the academic and non-academic demands they juggle, as well as grow and thrive in the face of adversity and the challenges of childhood and adolescence.

Disclosures

The University of Pennsylvania has licensed the Penn Resiliency Program to Adaptiv Learning Systems. Drs. Reivich and Seligman own Adaptiv stock and could profit from the sale of this program. None of the other authors has a financial relationship with Adaptiv.

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