

RESILIENCE AND SELF-EFFICACY: THE IMPORTANCE OF EFFICACY BELIEFS AND COPING MECHANISMS IN RESILIENT ADOLESCENTS

Sarah K. Hamill

Abstract

Resilience, a construct defined as competence in the face of significant adversity, was examined among adolescents using both self-report and parental data. Participants were 43, 16 to 19 year old high school students currently enrolled in an elective psychology class. Self-efficacy, perceptions of control, response to stress, persistence and coping mechanisms were measured using several questionnaires and structured tasks. The analysis yielded four distinct groups: resilient adolescents, competent adolescents, maladaptive adolescents, and a low adversity/low competence group. The resilient and competent adolescents were similar in terms of self-efficacy and coping mechanisms, and the maladaptive and low competence/low adversity group scored lower on these measures than the resilient and competent groups. Self-efficacy and the ability to articulate coping responses were important personality characteristics that distinguished the resilient group from the maladaptive youths as predicted. Internal control, response to stress, persistence and the ability to select positive coping options did not differ across the four groups, leading to the possibility that these characteristics may serve a less important role in the development of competence in the face of adversity. Further investigation is needed to look at longitudinal correlations between resiliency and the effect of self-efficacy and coping strategies.

Introduction

Throughout the past three decades resilience research has grown in popularity and various models and data have emerged as well as criticisms about the usefulness of this construct in psychology (Masten, 2001). Resilience typically refers to the development of competence in the face of adversity. More specifically, it refers to a dynamic process of positive adaptation and development while simultaneously facing a significant amount of adversity (Luthar, Cicchetti & Becker, 2000). The idea of resilience being a “dynamic process” stands in contrast with the previously held belief that invulnerability to stress was an inherent and stable trait in resilient children (Luthar, Cicchetti & Becker, 2000). This perspective has largely been abandoned because research has shown that resilient children do not possess invulnerable or invincible qualities; rather some aspect of normal working adaptation systems have been preserved in spite of these children’s exposure to adversity (Masten, 2001).

The study of resilience originally grew from intriguing observations that some children function competently despite noticeable risks and adverse conditions (Masten & Coatsworth, 1998). From the start, research on resilience has focused on ways of

understanding what distinguishes resilience in some children, with the ultimate goal of developing and promoting those traits or factors once revealed. Throughout research on resilience, the operationalization of both competence and adversity has varied considerably within the literature. This has been both a criticism of resilience studies and a positive attribute. Some researchers have argued that the considerable variation in defining key constructs has undermined the interpretability of the subsequent results; others have contended that some variation in methodology is essential in expanding our knowledge of this construct (Luthar et al., 2000).

Despite these inconsistencies in the research on resilience, several studies have uncovered a core set of factors that have consistently been shown to promote competence despite adversity. These factors include relationships with caring prosocial adults, good problem solving skills, and good intellectual functioning (Masten & Coatsworth, 1998). These traits are important in promoting competence in normal development and it appears that the systems that promote competence in normal development are operating to protect a child against the threats posed by adversity (Masten & Coatsworth, 1998). For example, children with a supportive and loving adult in their lives will be more likely to experience better outcomes whether they are facing little adversity or are at a high risk for development problems. Although good problem solving skills, high intellectual functioning, and positive adults are consistent findings in the development of competence, there are several other qualities and traits that are not as well established in resilient children and adolescents. These characteristics include self-efficacy, self-confidence, attending effective schools, talents, and faith. Although some research has shown a positive link between these traits and the development of competence, other studies have found conflicting data.

The Role of Self-Efficacy in Promoting Resilience

A potentially important protective factor that has received limited research attention is self-efficacy; this trait is the focus of the present study. Albert Bandura (1981, 1983, 1999) has been a pioneer in self-efficacy research and Bandura has conceptualized self-efficacy as individuals' beliefs in their capabilities to mobilize the motivation, cognitive resources, and agency to exert control over a given event. It is the belief in one's capabilities to produce a certain outcome or goal that is seen as the foundation of human agency (Bandura, Pastorelli, Barbaranelli & Caprara, 1999). Efficacy beliefs regulate human functioning and emotional well-being through cognitive, motivational, affective and selective processes. When facing adverse events, those who retain the belief that they will be able to exert control over their thoughts are more likely to persevere in their efforts. Those who are self-efficacious are also more likely to reject negative thoughts about themselves or their abilities than those with a sense of personal inefficacy (Ozer & Bandura, 1990).

Thus, unless people believe they can produce desired goals through their actions they will have very little incentive to persevere in the face of difficulties. Presumably then, self-efficacy would be an important trait in the development of competence when facing adversity. Perceived self-efficacy likely affects individuals' ability to adapt and deal flexibly with difficult situations, and also affects individuals' aspirations, analytical thinking, and perseverance in the face of failure (Bandura et al. 2001). This is particularly relevant to adolescent development because in order to negotiate the risks

and challenges associated with this transitional period, adolescents' success is partly dependent on the strength of their perceived self-efficacy (Bandura et al., 1999). If adolescents receive positive feedback from those close to them, and are generally regarded well by others, they are likely to believe they are competent in activities important to them (Saarni, 1999). This reinforces individuals' self-efficacy beliefs, which play a major role in their willingness to engage in future activities, seek new challenges, and invest themselves in worthwhile tasks. Especially when faced with challenging and difficult situations, it is likely that self-efficacy beliefs are important in developing a sense of self-worth that in turn influences a persons' ability to persevere in the face of poverty, parental discord, death of a loved one, or how ever the adversity may challenge them. Although self-efficacy appears to play a potentially important role in resilience, research has not examined the effects of perceived self-efficacy beliefs on adolescents.

Components of Self-Efficacy

One central aspect of an individual's self-efficacy is the belief that through the exertion of control one can influence the outcome of events in one's life. Particularly when confronting stressors, retaining a sense of control over one's life is an important factor in the successful adaptation to a variety of circumstances (Aspinwall & Richter, 1999). Control beliefs have therefore been conceptually and empirically linked with greater persistence and successful adaptation to stress; such beliefs may be an important aspect in the development of competence in resilient adolescents (Aspinwall & Richter, 1999).

Likewise, the development of coping skills in adolescence is critical in helping youth maintain positive adaptation to stressors. Coping is a sub-set of self-regulatory processes and the type of coping skills an individual can enact will depend on the developmental level and the resources that are available to an individual. The development of coping skills in adolescence is critical in helping youth maintain positive adaptation to stressors. (Compas, Connor-Smith, Saltzman, Thomsen & Wasdworth, 2001). The way adolescents use their inner resources may be an important factor in their ability to employ coping strategies in their lives because psychosocial stress can occur as a result of significant adversity. Resilience and coping are interconnected and interdependent in that coping is a way to set into motion personal resources, and resilience is the positive outcome of successful coping (Compas et al., 2000).

Theoretically, effective and flexible coping strategies are employed to achieve the optimum level of self-regulation. Broadly, the two main coping strategies used to deal with stress are emotion-focused and problem-focused strategies. Problem-focused strategies are active problem solving methods used to resolve the stressful relationship between the self and the environment (Compas, Connor-Smith, Saltzman, Thomsen & Wasdworth, 2001). Emotion-focused coping strategies are ways in which people achieve an optimal level of emotional regulation and the capacity to deal with intense situations and feelings (Saarni, 1999). Emotion-focused coping strategies shown to be effective are distraction, cognitive reframing the meaning of the difficult situation and information seeking strategies. The key component to these successful coping strategies is the ability to be flexible in the selection of strategies depending upon the control an individual has over a stressor (Saarni, 1999). Optimal self-regulation occurs when active problem

solving and emotional regulation are used together to allow the individual to appraise a situation and make sense of what is going on. In addition, optimal emotional regulation is attained through effective coping strategies that will increase the capacity to tolerate difficult situations and adverse emotions. Alternatively, the use of avoidance, denial, and dissociation have been shown to be less effective emotion-focused coping strategies, because while this may offer short-term gain no long term solution is accomplished (Saarni, 1999). Chronically employing coping strategies of avoidance, denial and dissociation appear to restrict opportunities for learning and problem solving. These strategies work to restrict an individual's options rather than expand them (Saarni, 1999).

It is not yet clear whether problem-focused or emotion-focused strategies are more effective in coping with stress. Many problems in coping studies have resulted from a lack of consensus regarding the nature of coping during development; the inconsistent conceptualization of coping has led to confusion about the way in which effective coping can be facilitated in children and adolescents (Compas et al., 2001). However, consistent data have shown that, as children and adolescents mature, their repertoire of coping strategies expands (Saarni, 1997). Thus, older children or adolescents should be capable of generating more options to deal with stress and conflict situations.

Adolescents are at a point in their development where the complexity of their coping mechanisms should be diverse as well as possess a quality of depth. Emotional competence, including self-efficacious beliefs, in normal development and in the development of resilient children, is clearly necessary in the capacity for adaptive coping. Saarni (1999) has argued that all the abilities and skills needed for emotional competence are also involved in coping effectively. The greater the degree of internal resources and self-efficacy beliefs available to the adolescent the more comprehensive their coping mechanisms will be (Saarni, 1999). Self-efficacious beliefs may therefore play a key role in the ability to cope and persist with difficult situations in resilient children. Clearly, the various components of self-regulation and self-efficacy are inter-related. The ability to regulate one's emotions, a sense of control, and a sense of self-efficacy are necessary components for competent self-regulation and coping strategies (Saarni, 1999).

The Present Study

The present study is focused on the nature of the converging constructs of self-regulation and self-efficacy as they facilitate the development of coping mechanisms in resilient children. Although many traits are thought to be associated with resiliency, not all of these characteristics have been empirically demonstrated to be valuable protective factors for adolescents experiencing adversity. Although self-efficacy has been shown to be clearly connected to competence and self-regulation, relatively little research has focused on how this trait relates to resilient behavior in the face of adversity, as well as in normal development. In the present study, high school students were assessed on their level of adversity and competence to determine whether they currently exhibited resilience. A variety of methods were used to measure the complex construct of self-efficacy. Students' self-efficacy and locus of control beliefs were assessed to determine the presence of efficacious and internal regulatory beliefs. Two tasks, one a verbal anagram task and the other a story telling exercise, were used to assess students' persistence at difficult and unsolvable tasks as well as the coping mechanisms they would

employ in hypothetical situations. The present study is interested in using a multifaceted approach to measure these constructs in adolescents as well as obtaining a measure of coping strategies that students might be using in their daily life.

I predict that compared to maladaptive adolescents, resilient adolescents should possess self-efficacious qualities and an internal locus of control and should demonstrate the ability to persist at difficult tasks. Resilient adolescents should also demonstrate a range of effective coping strategies that are both positive and insightful. The perceived self-efficacy beliefs, locus of control, persistence, and effective coping mechanisms should be comparable in children who are competent but not facing a significant amount of adversity. I predict that these two groups of adolescents will demonstrate higher levels of self-efficacious beliefs than those participants who are faced with a significant amount of adversity and demonstrate a lack of competence.

Method

Participants

Forty-three adolescents participated in this study. All participants were from an urban high school in the central New York region and currently enrolled in an elective psychology class. Participants were recruited through a brief presentation from the researcher. Student participants were between the ages of 16 and 19 ($M=16$ years) and were in either 11th or 12th grade. The racial/ethnic composition of the sample was as follows: 51.2% white ($n=21$), 29.3% African-American ($n=12$), 9.8% Hispanic ($n=4$), 7.3% Bosnian ($n=3$) and 2.4% Asian ($n=1$). All participants gave their assent and all student participants who were under the age of 18 were required to obtain written consent from their parents. Student participants were given a coupon for a slice of pizza for their participation, and the teacher who participated was paid for her contribution to the study. At the completion of the data collection all participants were invited to attend a talk given by the researcher to explain the purpose of the study as well as what the study concluded.

Measures

Adversity. Adversity was measured using an adapted form of the Multidimensional Assessment of Stressful Life Events developed by Newcomb, Huba, and Bentler (1981; see Appendix E). Items included stressors selected from the family/parents, accident/illness and relocation domains. Participants were asked to select whether the event had occurred, if it had occurred within the past year and if it had occurred recently. The total level of adversity was scored using a coding method based on one developed by Gest, Reed, and Masten (1999) for rating the information about life adversity (see Table 4.1). The individual items were scored first and then the individuals overall level of adversity was computed based on general guidelines for the accumulation and combination of the severity of events (see Table 4.2).

Competence. The three aspects of competence, as adapted from DSM criteria, are rule-abiding versus anti-social conduct, academic achievement and social competence. Information about participants' competence was obtained using two methods. Participants were asked to fill out an adapted form of Achenbach's (1991) Youth Self-Report that assessed their academic achievement, social competence, aggressive behavior, and delinquent behavior (see Appendix C). Aggressive and delinquent

behavior questions were rated on a scale of 0-2, ranging from “Not True” to “Very true or Often”. Competence measures were also compiled from parents that filled out the Child Behavior Checklist, which was comprised of the same items as the Youth Self-Report (Achenbach, 1991; see Appendix D). The participants’ scores were compared to T-scores of a sample provided by Achenbach(1991), to see if the participants fell higher or lower than the mean percentile when compared to a larger group of adolescents.

For the self-efficacy scale, Multidimensional Measure of Children’s Perceptions of Control, and the Response to Stress Questionnaire refer to Table 1 for reliability statistics and sample items.

Self-Efficacy. Self-efficacy beliefs were measured using a slightly modified version of a Self-Efficacy Scale (SES) developed by Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs and Rogers (1982; see Appendix A). The questionnaire consisted of 30 items, with two subscales: general self-efficacy and social self-efficacy. This measure was designed to assess general expectations of self-efficacy that are not tied to specific situations or behavior. Participants read statements relating to their efficacious beliefs and selected on scale of 1 to 5 if they disagreed or agreed with the statement. Five of the statements were filler items and were not scored. The items listed in the questionnaire centered on statements about a person’s determination to persevere in the face of difficulty. The underlying assumptions of this scale are that personal expectations of mastering a task are crucial factors in behavioral change, and that differences in past experiences of success lead to various levels of self-efficacy expectations (Sherer et al., 1982).

Multidimensional Measure of Children’s Perceptions of Control (MMCP). To assess the participants’ feelings of control in their life an adapted form of the Multidimensional Measure of Children’s Perceptions of Control (MMCP) developed by Connell (1985) was administered (see Appendix B). This questionnaire consists of 48 items comprised of three sub-scales of sources of control: internal control, powerful others control, and unknown control. Each of these sub-scales are measured within four domains: cognitive (school achievement), social (peer relations), physical (sports activity), and general. For the present study the physical domain statements were omitted. Each control source is represented by two items, one in the positive direction and one in the negative direction. Participants are asked to read a statement and then select whether the statement was true or not true at all on a scale of 1 to 4, one being “Not True at All” and four representing “Very True.” The MMCP is designed to assess the different attributions that can be used to interpret successful and unsuccessful experiences. This measure was selected for the present study for its potential contribution to understanding the sense of control in an adolescent’s life, which is thought to contribute to one’s belief in the ability to persevere in difficult situations.

Response to Stress Questionnaire (RSQ). The final survey contained in the questionnaire packet was the Response to Stress Questionnaire (RSQ), the social stress version developed by Compas (2000). The RSQ contains 57 items that are used to assess 6 major sub-scales of coping responses: Primary Control Engagement Coping, Secondary Control Engagement Coping, Primary Disengagement Coping, Secondary Control Disengagement Coping, Involuntary Engagement and Involuntary Disengagement. Participants were asked to check off certain stressful events that may have occurred recently, followed by questions about what they would do in response to those events.

Each item is answered on a 4 point scale, from “Not at All” to “A lot”, with the question for every item being “How much do you do this?” This specific measure was selected because it was a way to ask the participants about how they react and cope with stress in their lives, which is the essence of this study. By administering a questionnaire this data was used in comparison to the coping interview data, thereby obtaining two measures of the way these students cope with stressful situations in their life.

Persistence. Participants were administered an adapted form of Feather’s (1961) line drawing task to measure persistence with difficult and impossible situations. Five stacks of index cards were placed in front of each participant. Each stack of index cards contained the same anagram on all the cards in that particular group. Two stacks of anagrams were assessed to be of low level difficulty (trypa, rafme), two were of moderate to difficult (linpec, aafit), and one was unsolvable (acelo). The level of difficulty for each anagram was chosen after a pre-test session with all the participants. The participant was given between 30-40 seconds to successfully unscramble each anagram. If the anagram was completed successfully in that time frame the participant moved on to the next anagram. If they had not solved the anagram after the allotted time, the participant was given the option to continue working on it for another 30-40 seconds or they could choose to move on to the next problem. Since each of the five cards within one stack of cards contained the same anagram, the participant could continue working on the same anagram up to five times. Persistence was measured as the time each participant chose to work on a given anagram, and whether he or she chose to continue working on the same anagram. Whether the participant engaged or disengaged with the difficult and unsolvable tasks was used as an indirect measure of one type of coping strategy employed when confronted with a challenging problem. The anagram scores were coded as follows: if the participant was correct on the 1-5 card, they received a score of 1 if correct within the first 30 seconds, 2 if correct within the second 30 seconds, and so on; if the participants stopped working on the anagram they were given scores between 6-10, a 6 indicating they stopped working after the first card, a 7 indicating they stopped working on the second card, and so forth.

Coping Strategies. A modified version of Saarni’s (1999) story telling task was used to test for specific types of coping mechanisms and strategies participants would employ when dealing with hypothetical situations participants might encounter in their daily life. Participants were given brief vignettes of various situations they might find themselves in. The situations were modified to create scenarios that were more age appropriate for a participant pool of high school students. Participants were read each vignette and were also given a copy to follow along. Each vignette ended with an aversive emotion being clearly labeled in the story, but no outcome was provided. Five coping solutions were also given with each story reflecting problem solving, support-seeking, distancing/withdrawal, internalizing, and externalizing strategies. These were printed on a separate sheet of paper and presented to the participant. At the completion of the story participants were given a comprehension check to make sure the participant understood the protagonists’ emotional response. The standard interview questions for each vignette were as follows: (a) “Here are some ideas of what X (protagonists name) could do. Which option do you think would be the best choice for X to do?” (b) “How do you think that (the coping strategy selected) would make things better for X?” (c) “How will X feel after doing that?” (d) “Of the remaining options, which do you think would be

the worst thing for X to do?” (e) “How would that make things worse?” (f) “How will X feel after doing that?” The best coping options were considered the problem solving option (including discussing the problem with a friend or adult) and support seeking (including seeking help, comfort, and social approval). The worst coping options were distancing (e.g., avoiding the problem), internalization (e.g., hopelessness, self-depreciation) and externalization (e.g., aggressive acting out). For questions c, e, and f, the focus was on what the participant would do if they were in a similar situation, rather than on what the protagonist should do. The responses to the coping strategies were coded as outlined by Saarni (1997). The responses to the justification question for the best option were assigned to one of five categories, ranging from 1=don’t know, 2=restating the coping choice as though it were a self-evident justification, 3=a personalized response, 4=pointing out that the choice permitted the avoidance of a negative consequence associated with one of the other coping options, and 5=an elaborated outcome that specifically cited the protagonist as benefiting from the coping response in a social or interpersonal fashion. Responses to how the protagonist would feel were assigned to one of three categories, 1=don’t know to 3=a specific feeling was mentioned. Responses to the justification for the worst options were assigned to one of five categories, 1=don’t know, 2 and 3 same as for the best option, 4=a simple, nonsocial negative consequence, and 5=a more elaborated outcome that specified how the protagonist would lose in some interpersonal fashion as well. The responses to how the protagonist would feel after acting in the worst choice, were given a rating from 1-3, following the same format as for the best option. A second person served as a coder for 10 of the participants’ responses to the coping vignettes.

Procedure

Participants were tested in their high school in Utica, New York during free periods throughout the day. The entire length of testing was kept under 30 minutes for each student. The participants first signed a certificate of informed consent, and then completed the questionnaire packet. First the five questionnaires were administered to students as a group. Second, the students were individually tested in a separate room with the experimenter for each of the two tasks: anagram task and the story telling task. In order to ensure complete confidentiality, each student was assigned a number that appeared on his or her survey packet as well as on his or her anagram and vignette answer packet. The Child Behavior Checklists were sent home to parents/guardians by the participant and were then mailed back to the researcher by the parent/guardian.

Results

Defining Criteria for Resilient, Competent, Maladaptive and Low Adversity/Low Competence Groups

The first analysis focused on defining the individual participants into resilience categories based on their level of competence and level of adversity. Competence was defined as adequate when an individual was higher than one-half a standard deviation above the sample mean on all of the following competence measures: self-reported aggression, self-reported delinquency, parent reported aggression, parent reported delinquency, social behavior or academic achievement. Low competence was defined as

falling more than one-half a standard deviation below the mean on at least one of the measures listed above. High adversity on the Life Events Scale was defined by ratings of severe/extreme to catastrophic adversity (≥ 5) at the present time for adolescents. Low adversity was defined as ratings of moderate adversity or less, yielding scores below 5 on the Life Events scale. The resulting high adversity group had experienced either a single stressor of extreme severity (such as recent parental divorce, or recent death in the family), the accumulation of several stressors of moderate severity (such as family experiencing money problems, changing schools, parents fighting often), or chronic severe stressors (such as one/both parents abusing alcohol). The score for the adversity scale ranged from two to six across all participants, with a mean score of 4.28. For individuals who scored low on competence and low to moderate on adversity (scores 2-4) these individuals were placed in a fourth group called Low competence/low adversity.

These criteria yielded a total of 8 high competent, high adversity Resilient individuals (6 females, 2 males; 62.5% minority); 7 Competent individuals (7 females, 0 males; 42.9% minority), 11 low competent, high adversity Maladaptive individuals (9 females, 2 males; 45.5% minority) and 17 Low adversity/low competence individuals (12 females, 5 males; 41.2% minority). A one-way ANOVA analysis showed that the four groups differed significantly on the Youth Self-report aggression and delinquency measures ($F=6.59$ and $F=6.53$ respectively, $p<.001$). There were also significant differences between the groups on the Stressful Life Events scale ($F=17.06$, $p>.001$). This finding is in accordance with the way the four groups were defined based the combination of competence and adversity measures.

Further analysis of these four groups supported the validity of the distinctions between Resilient, Competent, Maladaptive and Low competence/low adversity groups. A one-way ANOVA was conducted to compare the four groups on the measures of self-efficacy and persistence, including the Self-efficacy Scale, the Multidimensional Measure of Children's Perceptions of Control, and the Response to Stress Questionnaire, as well as the anagram task and coping vignette interviews. Post-hoc tests (Fisher's Least significant difference) were used to determine which groups differed from one another. These ANOVAs are presented in Tables 2 and 3.

Self-efficacy Scale. A significant difference was found between the four groups on overall self-efficacy and general self-efficacy, a sub-scale of self-efficacy. For the overall self-efficacy differences were seen between the Competent group and the Low competent/low adversity group, as well as a difference between the Maladaptive group and the Low competence/low adversity group ($F=4.23$, $p<.01$). A significant difference was also found in the general self-efficacy scale, where the Competent group significantly differed from the Low competent/low adversity group, and the Maladaptive group differed significantly from the Low competence/low adversity ($F=4.67$, $p<.01$). For general self-efficacy the competent group scored the highest, while the Low adversity/low competence group scored lowest on this measure.

Response to Stress Questionnaire (RSQ). The overall RSQ measure did not yield significant differences, however the Secondary Control Engagement Coping subscale was significantly different between the Resilient group and the Low competence/low adversity group, with the resilient group scoring the highest, and a significant difference was detected between the Maladaptive group and the Low competence/low adversity group, with the Low competence/low adversity group scoring the lowest ($F=.04$, $p<.05$).

This subscale measured the extent to which the adolescents modified their perception of how they would think about and react to a difficult or stressful situation.

Coping Strategies Interview. Analysis of the coping strategy vignettes revealed significant differences between the four groups on their responses to four specific questions about how a particular option would improve/worsen the situation and how selection of that choice would make them feel ($F=4.12$, $p<.01$). These four questions measured the increasing complexity of thought in response to each vignette. The resilient group scored the highest on this measure, followed by the competent group, low competent/low adversity group, and finally the maladaptive group. The significant differences in complexity of thought were seen between the resilient group and the maladaptive group, and between the maladaptive group and the low competence/low adversity group. Significant differences were not found when the best and worst coping strategies were compared between the four groups (see Figures 1 and 2).

MMCP and Anagram Task. The one-way ANOVA for the Children's Perceptions of Control questionnaire and the anagram task showed that there were no significant differences between the four groups on these measures.

Discussion

The results in this study provide support for the hypothesis that self-efficacy is a trait present among competent adolescents facing adversity. There were four major findings of this study: 1) the resilient and competent groups were similar in terms of self-efficacy, secondary control engagement and response complexity, the items were significant differences were found 2) the four groups were more similar on a number of measures of self-efficacy, coping, and persistence than expected and 3) there was a surprisingly large group of students in the low competence/low adversity group and this group was characterized by low levels of adversity and high levels of aggression and delinquency 4) self-efficacy and complexity of response to difficult situations emerged as the items that distinguished the resilient adolescents from the maladaptive and the low competence/low adversity group. These findings add to the knowledge about personality characteristics that may promote good outcomes and that characterize those adolescents who remain competent despite adversity.

Resilient and competent adolescents

Overall, the resilient and competent adolescents look very similar on almost all of the self-report measures. The main difference between the two groups was that the resilient group reported a higher level of delinquent behaviors, a finding that has been noted in other studies (Masten, 1999). The two groups did not differ on scores of self-efficacy, control perceptions, responses to stress, persistence, or coping strategies. This finding is consistent with the original hypothesis that the resilient and competent groups should look similar because resilience by its very nature implies that those individuals are competent based on determined criteria. The fact that few differences were found between the resilient and competent groups is an important finding that replicates several studies reporting the finding that resilience is a phenomenon where certain aspects of normal functioning have been promoted (Masten, 2001). Therefore, even under the threat of adversity, successful adaptation can be achieved if the basic systems of functioning have been preserved. So the fact that in this study adolescents in the resilient

and competent groups scored similarly on a number of measures lends support to the currently held contention that resilience is an “ordinary” phenomenon in which adaptational systems have been maintained despite challenges.

Maladaptive Adolescents

The maladaptive youth differed greatly from the resilient and competent group, as expected. On the whole, this group displayed high delinquent and aggressive behavior, as well as a lower general self-efficacy when compared to the competent and resilient groups. However, this group did not differ significantly from the competent and resilient groups on overall self-efficacy, secondary control engagement, or on the coping strategies selected. These findings are in opposition to the original hypothesis that expected there to be more of a distinction on measures of efficacious beliefs (including persistence and control) and coping strategies between the students who were competent versus those who were maladaptive.

Low competence/low adversity adolescents

The Low competence/low adversity participants were an unexpected group that fared poorly throughout this study. This group of students was defined by low levels of competence as well as low levels of adversity, which has been a rare combination in previous research. In fact, Masten (2001) has referred to these groups as an “empty-cell phenomenon” because there are often so few of these students in school based samples. In this study this group displayed the highest levels of delinquent and aggressive behavior, as well as lower levels of self-efficacy and coping strategy complexity compared to the other three groups. The question arises as to why so many students in this study were categorized into this unusual group. It may be that the criteria used to define adversity are responsible for this group because the information about stressful events was gathered solely from the student and therefore may have been an underestimate of the levels of adversity experienced. Many of the students in the low competence/low adversity group they were assigned scores of moderate adversity. Perhaps if more information had been obtained about the true adversity experienced by these students (e.g., by contacting their parents) their adversity scores would have been higher, and some of these students would have been categorized as maladaptive.

Similarities Between Resilient, Competent, Maladaptive and Low competence/low adversity groups

Another important overall finding was that, for a number of variables, the four groups did not differ, specifically on the measures of persistence, responses to stress, control perceptions and selection of coping strategies. There are a number of reasons as to why these similarities may have occurred. For the persistence task, it may be the case that the adolescents’ ability to persist on a verbal task may have been more related to their intelligence, than to their ability to persist in difficult situations. Certainly the ability to persist in difficult situations is a trait that would likely be useful for someone faced with chronic and/or acutely stressful situations, for the greater the degree of internal resources available the better off that person will be when faced with difficult situations (Saarni, 1999). However in this case, although persisting on a verbal task was difficult for most students, the degree to which the adolescents persisted was not related to their

resilience. What was instead discovered was that the students who were better at verbal tasks, often with a higher academic rating, performed better on this task compared to the other participants. Likewise, the students across the four groups did not differ on the response to stress as measured by the RSQ questionnaire. The similarity between the groups is particularly surprising here in light of the differences found on the complexity of coping strategies, a similar construct.

One very interesting finding in this study was that an internal locus of control, as measured by the Multidimensional Measure of Children's Perceptions of Control, found the four groups to be similar on this measure across cognitive, social and general aspects of control. This result stands in opposition to the original hypothesis, which predicted that resilient and competent adolescents would differ from the maladaptive adolescents on the internal locus of control measure. In addition, based on previous literature I would have expected that if significant differences between the four groups were seen on the self-efficacy measure that those differences would have also been reflected in the locus of control measure, particularly on the measure of internal control. Previous literature has linked control beliefs with successful adaptation to stress and control has been identified as an important aspect in the development of competence in resilient adolescents (Aspinwall & Richter, 1999). Bandura et al. (2001) have also linked control beliefs to self-efficacy, because it is thought that a person's belief that they can produce a desired outcome is a crucial factor when persevering in the face of difficulties. The fact that this study did not support the idea that control beliefs correlate with self-efficacy in resilient and competent adolescents leads to either one of two conclusions: 1) that the measure of locus of control was not an effective measure of this construct, or the sample size was too small to exhibit a difference, or 2) that an internal locus of control about cognitive, social and general aspects of one's life may not be an essential factor in the self-efficacy of adolescents.

A final finding that is noteworthy is the lack of differences observed in the selection of best and worst coping strategies for each of the vignettes. In fact, the coping strategies selected were surprisingly similar across the four groups of adolescents. Initially one would have expected to see differences between the resilient and competent groups with the maladaptive group, because it is reasoned that the resilient and competent groups would be more likely to select prosocial options (such as problem solving and support seeking) whereas one would expect that the maladaptive and low competence/low adversity adolescents would be more likely to select the negative options (externalizing). However, the fact that the groups did not differ on this measure is both interesting and thought provoking. On the one hand, it is very hopeful to know that overall most students, even those considered maladaptive and low competence, are able to recognize and articulate what choices are best and worst in various situations. Of course, then the question arises as to why maladaptive and low competence students are able to select the right choices in a hypothetical situation but do not always select the best choice in difficult situations in their own lives. It should be noted that this task developed by Saarni (1999) was originally intended for younger students, and although it was modified it may not have accurately represented the types of situations adolescents find themselves in. However, based on the personal contact with each student it appears more likely that there exists a discrepancy between what the best strategy would be and what each student would actually choose. A number of times throughout the data

collection the students would make comments such as, “Well I guess the best option would be to seek help from a parent/teacher, but to tell you the truth I would have done X” (X being any number of options that would fall under the category of distancing, internalizing, or externalizing behavior).

Limitations of the Current Study

This study had a number of limitations that require caution when interpreting the results. First, the sample size here (n=43) was too small to be able to generalize the results to a larger population of adolescents. Also the data presented here are correlational and a causal link between self-efficacy, coping mechanisms and resilient behaviors cannot be concluded from this study. In addition, the sample was disproportionately composed of females, so the present study cannot be generalized to a male population.

Furthermore, one of the most important limitations concerns the level of adversity for each participant and the subsequent categorization of the adolescents into one of four groups. The measure of stressful life events was a self-report questionnaire and the only measure that was used when evaluating the stressors and adversity each adolescent faces. In retrospect this measure did not include enough items about potential stressors in home and school life. There was an attempt made to gather more detailed information from the adolescents’ parents about the type of family and home adversity faced however the response rate for the parental surveys was too low to include the parental ratings in the estimates of adversity.

Directions for Future Research

Future research in the study of resilience should address questions of how resilience can be fostered in so many diverse ways and environments. There are numerous ways for adaptation throughout development to occur, and it would be especially interesting to know more about the diverse situations that positive outcomes can be fostered, particularly for those adolescents developing competence in the face of adversity. Future studies may reveal more clearly the nature of how resilient youth are able to adjust and develop normally under diverse and adverse conditions.

This study was unable to answer questions about long term outcomes however such a longitudinal study of resilient youth would be able to address how resilient adolescents compare in adulthood to their competent and maladaptive peers. Long-term studies are also needed to look at consequences of being resilient over time. Thus far, there have been conflicting findings on this issue, where some studies have found that resilient adolescents suffer from internal distress, despite their outward positive adaptation, while other studies have not found evidence for heightened internal distress (Luthar, 1991; Masten et al., 1999).

Another lingering question that this study was not able to address concerns the group of maladaptive adolescents. While this study’s main objective was to focus on the nature of resilient adolescent’s it should be recognized that a deeper understanding of maladaptive youth would contribute significantly to our knowledge about why and how some youth are able to adapt positively and others are not. A specific question raised in the present study is why the maladaptive students were able to identify and select the socially desirable coping strategies as the best options, and the externalizing strategies as

the worst options, yet it is assumed that in their own lives they are not always able to enact these choices based on their self-reported delinquent and aggressive behavior.

In addition, while this study focused on self-efficacy as a potentially important trait for resilient adolescents there are still a number of characteristics that may operate to promote positive outcomes and have yet to be explored. Such potential protective factors include self-confidence, talents and religious faith. The more attention focused on the nature of positive processes that promote competence in the face of adversity, the more this research will be able to offer in order to promote competence in individuals throughout society.

References

- Aspinwall, Lisa G., & Richter, Linda. (1999). Optimism and self-mastery predict more rapid disengagement from unsolvable tasks in the presence of alternatives. Motivation and Emotion, 23 (3), 221-245.
- Bandura, Albert, & Cervone, Daniel. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. Journal of Personality and Social Psychology, 45 (5), 1017-1028.
- Bandura, Albert, & Jourden, Forest J. (1991). Self-regulatory mechanisms governing the impact of social comparison on complex decision making. Journal of Personality and Social Psychology, 60 (6), 941-951.
- Bandura, Albert, & Schunk, Dale H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. Journal of Personality and Social Psychology 41 (3), 586-598.
- Bandura, Albert, Barbaranelli, Claudio, Caprara, Gian Vittorio, & Pastorelli, Concetta. (2001). Self-efficacy beliefs as shapers of children's aspirations can career trajectories. Child Development, 72 (1), 187-206.
- Bandura, Albert, Barbaranelli, Claudio, Caprara, Gian Vittorio, & Pastorelli, Concetta.(1999). Self-efficacy pathways to childhood depression. Journal of Personality and Social Psychology, 76 (2), 258-269.
- Compas, Bruce E., Conner-Smith, Jennifer K., Saltzman, Heidi, Thomsen, Alexandra Harding, & Wadsworth, Martha E. (2001). Coping with stress during childhood and adolescence: problems, progress, and potential in theory and research. Psychological Bulletin, 127 (1), 87-127.
- Connell, J.P. (1985). A new multidimensional measure of children's perceptions of control. Child Development, 56, 1018-1041.
- Conner-Smith, J.K., Compas, B.E., Wadsworth, M.E., Thomsen, A.H., & Saltzman, H. (2000). Responses to stress in adolescence: measurement of coping and involuntary stress response. Journal of Consulting and Clinical Psychology, 68 (6), 976-992.
- Cowen, Emory L., Wyman, Peter A., Work, William C., Kim, Julia Y., Fagen, Douglas B., & Magnus, Keith B. (1997). Follow-up study of young stress-affected and stress-resilient urban children. Development and Psychopathology, 9, 565-577.
- Feather, N.T. (1969). Attribution of responsibility and valence of success and failure in relation to initial confidence and task performance. Journal of Personality and Social Psychology, 13 (2), 129-144.

- Lengua, Liliana J. (2002). The contribution of emotionality and self-regulation to the understanding of children's response to multiple risk. Child Development, 73 (1), 144-161.
- Luthar, Suniya S., Cicchetti, Dante, & Becker, Bronwyn. (2000). The construct of resilience: a critical evaluation and guidelines for future work. Child Development, 71 (3), 543-562.
- Masten, Ann S. (2001). Ordinary magic: resilience processes in development. American Psychologist, 56 (3), 227-238.
- Masten, Ann S., & Coatsworth, Douglas J. (1998). The development of competence in favorable and unfavorable environments: lessons from research on successful children. American Psychologist, 53 (2), 205-220.
- Masten, Ann S., Hubbard, Jon J., Gest, Scott D., Tellegen, Auke, Garmezy, Norman and Ramirez, MaryLouise. (1999). Competence in the context of adversity: pathways to resilience and maladaptation from childhood to late adolescence. Development and Psychopathology, 11, 143-169.
- Newcomb, Michael D., Huba, George J., & Bentler, Peter M. (1981). A multidimensional assessment of stressful life events among adolescents: derivations and correlates. Journal of Health and Social Behavior, 22, 400-415.
- Ozer, Elizabeth M., & Bandura, Albert. (1990). Mechanisms governing empowerment effects: a self-efficacy analysis. Journal of Personality and Social Psychology, 58 (3), 472-486.
- Saarni, Carolyn. (1999). The development of emotional competence. New York: Guilford Press.
- Saarni, Carolyn. (1997). Coping with adverse feelings. Motivation and Emotion 21 (1), 45-63.
- Sherer, M., Maddox, J.E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., and Rogers, R.W. (1982). The self-efficacy scale: construction and validation. Psychological Reports, 51, 663-671.

Table 1

Reliability Statistics and Sample Items for Self-efficacy, Multidimensional Perceptions of Control and Response to Stress Questionnaire

Scale	No. of items	Alpha	Sample Item (s)
Self-efficacy Scale (SES)	23	.88	
General Self-efficacy	17	.88	When I make plans, I am certain I can make them work.
Social Self-efficacy	6	.71	I have acquired my friends through my personal abilities at making friends.
Multidimensional Measure of Children's Perception of Control			
Unknown Control	11	.64	When I do well in school I usually can't figure out why.
Powerful Others Control	12	.87	If I want to be an important member of my class, I have to get the popular kids to like me.
Internal Control	12	.74	I can pretty much control what happens in my life.
Response to Stress Questionnaire (RSQ) Social Stress Version			
Primary Control Engagement Coping	9	.68	I try to think of different ways to change the problem or fix the situation.
Secondary Control Engagement Coping	9	.65	I tell myself that everything will be all right.
Primary Control Disengagement Coping	6	.55	When something goes wrong with other kids, I say to myself, "This isn't real."
Secondary Control Disengagement Coping	6	.47	I deal with the problem by wishing it would just go away, that everything would work itself out.
Involuntary Engagement	15	.90	When problems with other kids come up, I can't stop thinking about how I am feeling. When I have problems with other kids, I feel it in my body.
Involuntary Disengagement	12	.81	When problems with other kids happen I don't feel anything at all, it's like I have no feelings.

Table 2

Group Means for Defining Criteria for competent, resilient, maladaptive and low competence/adversity adolescents

	Resilient	Competent	Maladaptive	Low competence/ Low Adversity	One-Way <i>F</i> for Group
Defining Criteria					
Adolescent Competence					
YSR Social	8.0	7.86	8.34	7.68	.27 (NS)
YSR Academic	2.41	2.24	2.41	2.06	2.75 (NS)
YSR Aggression	7.63 ^a	5.86 ^a	11.73 ^b	12.35 ^b	6.59***
YSR Delinquency	3.88 ^a	2.00 ^b	5.18 ^{ac}	5.24 ^c	6.53***
CBC Aggression	3.60	2.50	7.13	6.43	1.56 (NS)
CBC Delinquency	1.00	1.25	2.38	2.43	1.17 (NS)
Adolescent Adversity					
Stressful Life Events Scale	81.13 ^a	89.00 ^b	87.91 ^a	73.82 ^b	17.06***

* .05 or smaller

** .01 or smaller

*** .001 or smaller

Groups with different subscripts differ significantly.

Table 3

Group Means for Planned Comparisons for Adolescent Measures of Self-efficacy, Multidimensional Perceptions of Control, Response to Stress Questionnaire, Anagram Task and Coping Strategies

	Resilient	Competent	Maladaptive	Low competence/ Low Adversity	One-Way <i>F</i> for Group
Planned Comparisons					
Self-Efficacy	81.13 ^a	89.00 ^a	87.91 ^b	73.82 ^{ac}	4.23**
General Self-efficacy	58.88 ^{abc}	67.00 ^{ab}	65.73 ^b	53.82 ^c	4.67**
Social Self-efficacy	22.25	22.00	22.18	20.00	.96 (NS)
Multidimensional Measure of Children's Perception of Control					
Unknown Control	20.00	18.71	21.64	19.18	.86 (NS)
Powerful Others Control	20.88	20.57	20.91	21.41	.04 (NS)
Internal Control	36.50	36.86	37.18	36.00	.15 (NS)
Response to Stress Questionnaire					
Primary Control Engagement	24.00	25.36	26.73	24.24	.96 (NS)
Secondary Control Engage.	27.63 ^a	24.43 ^{ab}	26.36 ^a	23.35 ^b	3.06*
Primary Control Disengage.	12.88	13.57	13.00	12.94	.07 (NS)
Secondary Control Disengag.	15.00	13.57	13.91	15.00	.49 (NS)
Involuntary Engagement	29.75	27.07	31.63	33.24	.85 (NS)
Involuntary Disengagement	20.00	17.43	21.82	21.88	1.16 (NS)
Anagram Task					
Solvable Anagrams	3.66	3.18	3.11	3.61	.20 (NS)
Unsolvable Anagram	6.57	7.33	7.00	7.29	.67 (NS)
Vignettes					
Story Complexity	53.57 ^a	48.50 ^{ab}	43.50 ^a	50.21 ^b	4.12 **
Best Options					
Support Option	.75	1.14	.81	.88	.29 (NS)
Problem Solving	1.88	1.43	2.00	1.35	1.00 (NS)
Distancing Option	.50	.43	.45	.41	.41 (NS)
Internalizing Option	.13	.14	.00	.12	.04 (NS)
Externalizing Option	.25	.29	.27	.53	.80 (NS)
Worst Options					
Support Option	.00	.00	.00	.00	.49 (NS)
Problem Solving	.13	.00	.00	.35	1.94 (NS)
Distancing Option	.25	.00	.27	.24	.72 (NS)
Internalizing Option	.63	.29	.73	.53	.45 (NS)
Externalizing Option	2.50	3.00	2.55	2.12	.68 (NS)

* .05 or smaller

** .01 or smaller

*** .001 or smaller

Groups with different subscripts differ significantly.

Table 4.1
Coding for Stressful Life Events Scale

Severity	Event/Stressor
Minimal	-reported no stressors within the past year or in the past
Very low/low	<ul style="list-style-type: none"> -Family member (or student) ill more than 1 year ago -Parents experienced financial problems more than 1 year ago -Parents changed jobs more than 1 year ago -Parents fight more than 1 year ago -Changed schools more than one year ago
Moderate	<ul style="list-style-type: none"> -Family member (or student) ill/accident within past year -Parents changed jobs within past year -Family experienced money problems within past year -Parents fight a lot within past year -Changed schools in past year -Parent remarries -Family moves
Severe/extreme	<ul style="list-style-type: none"> -Parents divorced More than 1 year=severe Within past year=extreme -Death in family Within past year=extreme More than 1 year=severe -Parents abuse alcohol Within past year=extreme More than one year=severe

Table 4.2

Overall severity of adversity: General guidelines (Guest, Reed & Masten, 1999)

1	Minimal	-No stressors or very few stressors that require minimal adjustment
2	Very Low or	-Single acute stressor of “moderate” severity
3	Low	-Accumulation of acute stressors of “low” severity -Chronic stressor of “low” severity
4	Moderate	-Single acute stressor of “severe” severity -Accumulation of acute stressors of “low” to “moderate” severity -Chronic stressor of “moderate” severity -Accumulation of chronic stressors of “very low” to “low” severity -Combination of both acute and chronic stressors of “low” severity
5	Severe or	-Single acute stressor of “extreme” severity -Accumulation of acute stressors of “moderate” or “severe” severity
6	Extreme	-Chronic stressor of “severe” severity -Accumulation of chronic stressors of “moderate” severity -Combination of both acute and chronic stressors of “moderate” severity

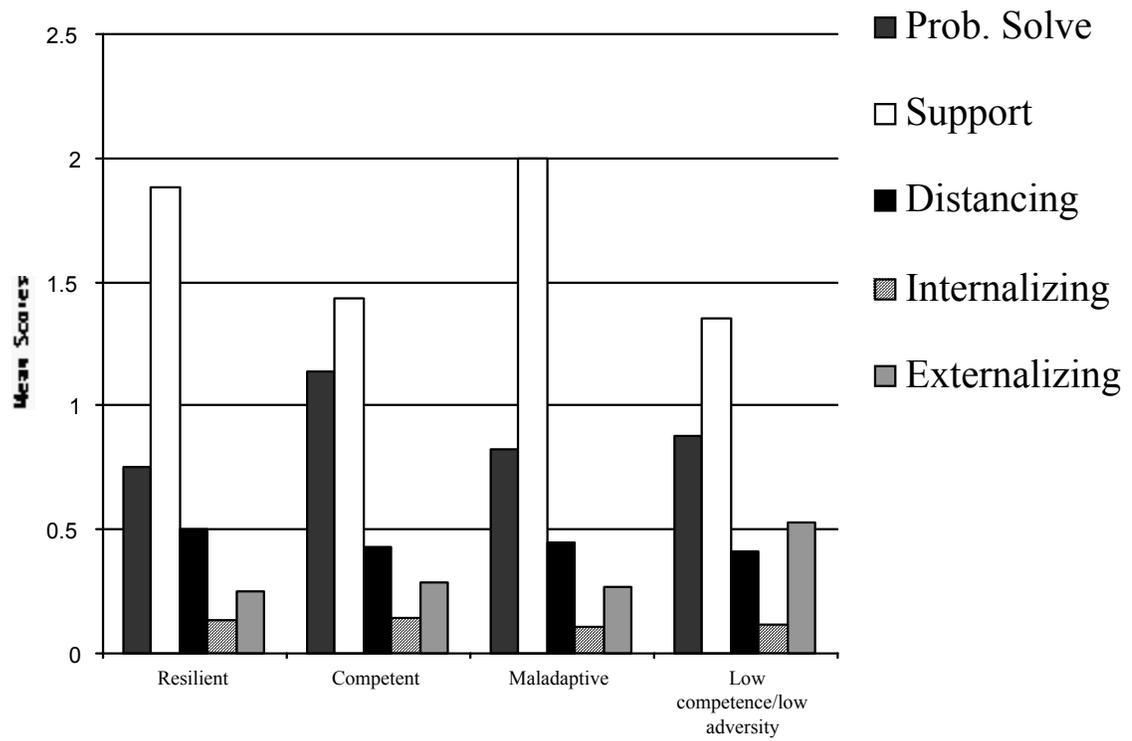


Figure 1. Mean Scores for choice of best strategy for combined vignettes for each of the four groups of adolescents: Resilience group (n=8), Competent group (n=7), Maladaptive group (n=11) and the Low competence/low adversity group (n=17). Prob. Solve=problem solving strategy.

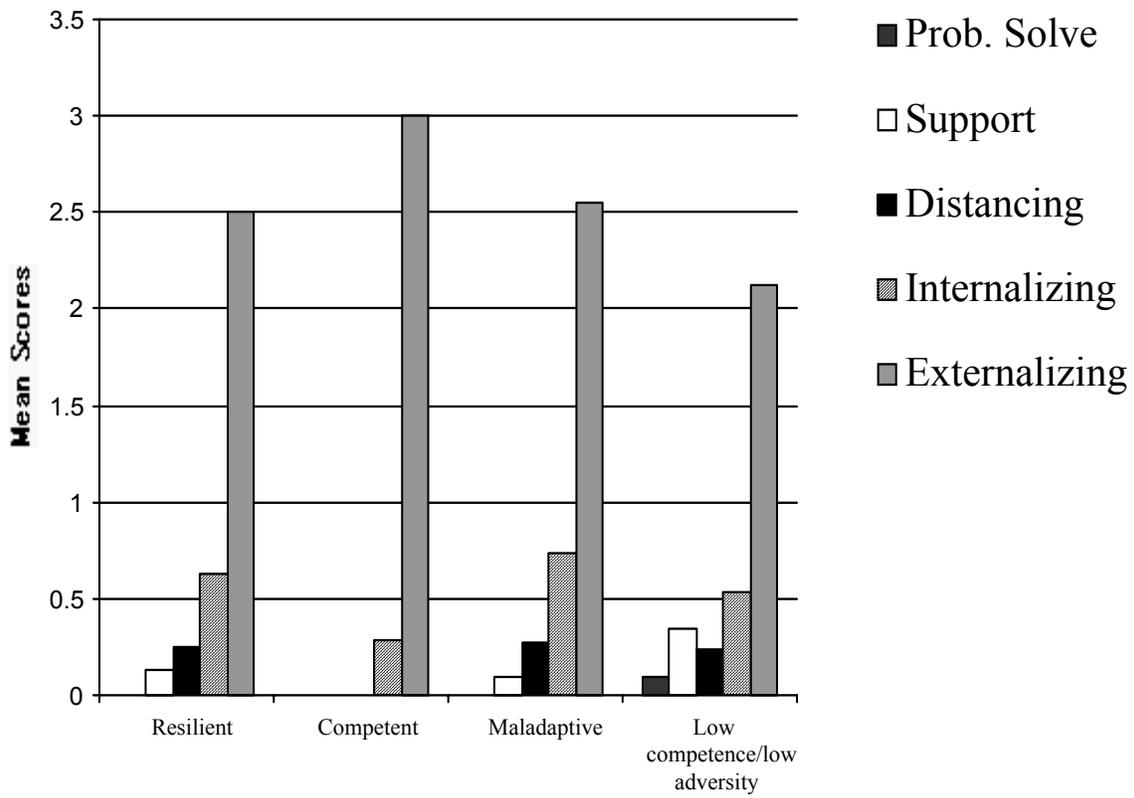


Figure 2. Mean Scores for choice of worst strategy for combined vignettes for each of the four groups of adolescents: Resilience group (n=8), Competent group (n=7), Maladaptive group (n=11) and the Low competence/low adversity group (n=17). Prob. Solve=problem solving strategy.

Appendix A

Self-efficacy Scale

This questionnaire is a series of statements about your personal attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your feelings about each statement below by marking the letter that best describes your attitude or feeling. Please be honest, and describe how you really are, not as you would like to be.

	1	2	3	4	5
	Disagree strongly	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree Strongly
1. I like to be outside.	1	2	3	4	5
2. When I make plans, I am sure that I can make them work.	1	2	3	4	5
3. One problem I have is that I am not able to get my school work done when I am supposed to.	1	2	3	4	5
4. If I can't do something the first time, I keep trying until I can.	1	2	3	4	5
5. What my parents think is important to me.	1	2	3	4	5
6. It is difficult for me to make new friends.	1	2	3	4	5
7. When I set a goal for myself, I often do achieve it.	1	2	3	4	5
8. I give up on things before I finish them.	1	2	3	4	5
9. I like to play sports.	1	2	3	4	5
10. If I see someone in school or on vacation that I would like to meet, I go to that person instead of waiting for him or her to come to me.	1	2	3	4	5
11. I avoid things that are difficult.	1	2	3	4	5
12. If something looks really complicated, I will not even bother to try it.	1	2	3	4	5
13. There is some good in everybody.	1	2	3	4	5
14. If I meet someone interesting and nice but who is very hard to make friends with, I'll soon stop trying to make friends with them.	1	2	3	4	5
15. When I have to do something boring or something I don't like, I stick to it until it is done.	1	2	3	4	5
16. When I decide to do something, I go right to work on it.	1	2	3	4	5
17. I like learning about nature and the way the world works.	1	2	3	4	5
18. When I am trying to learn something new, I soon give up if I don't get it right away.	1	2	3	4	5
19. When I am trying to become friends with someone who doesn't seem interested at first, I don't give up very easily.	1	2	3	4	5
20. When something bad happens out of the blue, I do not handle it very well.	1	2	3	4	5
21. I think that everyone should be treated fairly.	1	2	3	4	5
22. I do not try to learn new things if they look too difficult for me.	1	2	3	4	5
23. When I fail at something, it makes me try harder the next time.	1	2	3	4	5
24. I am not very good at being around people in	1	2	3	4	5

social situations.

25. I do not seem capable of dealing with most problems that come up in my life.	1	2	3	4	5
26. I feel unsure about my ability to do things.	1	2	3	4	5
27. I rely on myself more than others.	1	2	3	4	5
28. I have friends because people like who I am.	1	2	3	4	5
29. I give up easily.	1	2	3	4	5
30. I really like meeting new people.	1	2	3	4	5

Appendix C
 Youth Self Report

Please print your answers to the following questions.

 First Name Middle Last Name

____M____F
 Your Sex

 Your Age

 Ethnic Group or Race

____/____/____
 Today's Date

____/____/____
 Your Birthdate

 Grade in School

1. About how many close friends do you have? ____ None ____ 1 ____ 2 or 3 ____ 4 or more
 (Do not include brother & sisters)

2. About how many times a week do you do things with any friends outside regular school hours?
 (Do not include brothers & sisters) ____ less than 1 ____ 1 or 2 ____ 3 or more

Compared to others of your age, how well do you:

	Worse	About Average	Better
a) Get along with your brothers and sisters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Get along with other kids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Get along with your parents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Do things by yourself?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Performance in Academic Subjects.

<i>Check a box for each subject that you take</i>	Failing	Below Average	Average	Above Average
a. English or Language Arts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. History or Social Studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Arithmetic or Math	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The blank spaces are for other academic subjects –for example computer courses, foreign languages, business.
 Do **not** include gym, shop, driver's ed., etc.

Below is a list of items that describe kids. For each item that describes you **now** or **within the past six months**, please circle the **2** if the item is **very true** or **often true** of you. Circle the **1** if the item is **somewhat or sometimes true** of you. If the item is **not true** of you, circle the **0**.

0 = Not True	1 = Somewhat or Sometimes True	2 = Very True or Often True	
0	1	2	I enjoy a good joke
0	1	2	I argue a lot
0	1	2	I brag
0	1	2	I am willing to help others when they need help
0	1	2	I am mean to others
0	1	2	I try to get a lot of attention
0	1	2	I destroy my own things
0	1	2	I destroy things belonging to others

0	1	2	I disobey at school
0	1	2	I am pretty honest
0	1	2	I don't feel guilty after doing something I shouldn't
0	1	2	I can do certain things better than most kids
0	1	2	I am jealous of others
0	1	2	I get in many fights
0	1	2	I hang around with kids who get into trouble
0	1	2	I lie or cheat
0	1	2	I can be pretty friendly
0	1	2	I physically attack people
0	1	2	I would rather be with older kids than with kids my own age
0	1	2	I run away from home
0	1	2	I like to try new things
0	1	2	I scream a lot
0	1	2	I set fires
0	1	2	I have a good imagination
0	1	2	I show off or clown
0	1	2	I steal at home
0	1	2	I can stand up for my rights
0	1	2	I steal from places other than at home
0	1	2	I enjoy being with other people
0	1	2	I am stubborn
0	1	2	I like to make others laugh
0	1	2	My moods or feelings change suddenly
0	1	2	I swear or use dirty language
0	1	2	I like to help others
0	1	2	I talk too much
0	1	2	I try to be fair to others
0	1	2	I tease others a lot
0	1	2	I have a hot temper
0	1	2	I threaten to hurt people
0	1	2	I cut classes or skip school
0	1	2	I like to take life easy
0	1	2	I am louder than other kids
0	1	2	I use alcohol or drugs for nonmedical purposes (describe): _____

Below is a list of items that describe children and youth. For each item that describes your child **now or within the past six months**, please circle the **2** if the item is **very true or often true** of your child. Circle the **1** if the item is **somewhat or sometimes true** of your child. If the item is **not true** of your child, circle the **0**. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True	1 = Somewhat or Sometimes True		2 = Very True or Often True
1. Argues a lot	0	1	2
2. Bragging, boasting	0	1	2
3. Cruelty, bullying, or meanness to others	0	1	2
4. Demands a lot of attention	0	1	2
5. Destroys his/her own things	0	1	2
6. Destroys things belonging to his/her family or others	0	1	2
7. Disobedient at home	0	1	2
8. Disobedient at school	0	1	2
9. Doesn't seem to feel guilty after misbehaving	0	1	2
10. Easily jealous	0	1	2
11. Gets in many fights	0	1	2
12. Hangs around with others who get into trouble	0	1	2
13. Lying or cheating	0	1	2
14. Physically attacks people	0	1	2
15. Prefers being with older kids	0	1	2
16. Runs away from home	0	1	2
17. Sets fires	0	1	2
18. Showing off or clowning	0	1	2
19. Steals at home	0	1	2
20. Stubborn, sullen, or irritable	0	1	2
21. Swearing or obscene language	0	1	2
22. Talks too much	0	1	2
23. Teases a lot	0	1	2
24. Temper tantrums or hot temper	0	1	2
25. Threatens people	0	1	2
26. Truancy, skips school	0	1	2
27. Unusually loud	0	1	2
28. Uses alcohol or drugs for nonmedical purposes	0	1	2
(describe): _____			

29. Vandalism	0	1	2

Appendix E
Life Events Scale

Please read each statement and indicate if you have experienced the event within the past year by circling 1, circling 2 if you have experienced the event more than one year ago, or circling 0 if you have not experienced the event.

	0 = event has not occurred	1 = event has occurred within the past year	2 = event has occurred more than one year ago
1. Your parents divorced	0	1	2
2. A family member got into an accident or experienced an illness	0	1	2
3. There was a death in the family	0	1	2
4. One or both of your parents changed jobs	0	1	2
5. You changed schools	0	1	2
6. Your family has experienced money problems	0	1	2
7. Your parents argue or fight a lot	0	1	2
8. Your family moved	0	1	2
9. One or both of your parents remarried	0	1	2
10. You were in a serious accident or had a serious illness	0	1	2
11. One or both of your parents abuse alcohol	0	1	2