

Understanding Resilience in Diverse, Talented Students in an Urban High School

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This article summarizes findings from a 3-year study of 35 economically disadvantaged, ethnically diverse, academically talented high school students who either achieved or underachieved in their urban high school. In particular, the resilience of these two groups of high ability students is explored. Comparative case study and ethnographic methods were used to examine the ways in which some academically talented students develop and/or employ strategies associated with resilience to achieve at high levels. Both risk factors and protective factors are examined to explore participants' pathways toward either positive or negative outcomes. The results of this study suggest that some protective factors helped some academically talented students to achieve at high levels. The protective factors include supportive adults; friendships with other achieving students; opportunity to take honors and advanced classes; participation in multiple extracurricular activities both after school and during the summer; the development of a strong belief in self; and ways to cope with the negative aspects of their school and urban environment; and in some cases, their family lives. Other protective factors include students' relationships with supportive adults and their previous participation in a gifted and talented program.

Students who underachieved had specific risk factors, such as having older siblings who dropped out of school or became involved in drugs and/or alcohol. They also appeared to have developed fewer protective factors. The combination of the presence of risk factors and the absence of protective factors may have impeded the ability of some underachieving students to achieve at higher levels.

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A recent article in the Hartford Courant (Gottlieb, 2004) called attention to some of the issues surrounding the development of resilience. Reacting to a stabbing of three students in a Hartford high school, the principal called in crisis counselors. Not one student, however, sought help from the counselors. The principal was shocked, suggesting that students are "hardened." The newspaper reporter, however, suggested that it was not a bad thing to be hardened as "violence is so much a part of students' lives that it permeates such decisions as whether to join an after-school club and risk walking home alone or whether to wear jewelry to school" (Gottlieb, p.1). This article explores underachievement and achievement in culturally diverse, academically talented students who attended an urban high school, attempting to reveal how some academically talented youth learned to display the resilience that may have enabled them to cope with adversity or difficulty in their lives. This study extends the data analysis of a study in which researchers investigated the experiences of 35 culturally diverse, academically talented students who either achieved or underachieved in an urban high school (Reis, Hébert, Diaz, Maxfield, & Ratley, 1995).

Background of the Study

Little research examines the achievement or underachievement of academically talented high school students who are placed at risk because of poverty. To examine underachievement and resilience in this population, a qualitative study was conducted to explore the achievement of some academically talented students and the underachievement of others of similar ability and to further explore how resilience may or may not have been displayed by students in both groups.

Underachievement of Academically Talented Students

Student performance that falls noticeably short of potential is troubling to educators, parents, and researchers, especially when it occurs in young people with high ability. After decades of research, underachievement among high ability students is still viewed as a major problem. Over four decades ago, John Gowan (1955) described the gifted underachiever as "one of the greatest social wastes of our culture" (p. 247). According to the 1990 needs assessment survey conducted by researchers at The National Research Center on the Gifted and Talented, the problem of underachievement has been identified as the number one concern among educators of high ability and high potential students (Renzulli, Reid, & Gubbins, 1990). In 1983, the National Commission on Excellence in Education reported in *A Nation at Risk* that "over half the population of gifted students do not match their tested ability with comparable achievement in school" (p. 8).

Some students underachieve or fail in school for obvious reasons: excessive absences from school, poor performance, disruptive behavior, low self-esteem, family problems, and poverty (Reis & McCoach, 2000). In 1992, researchers for Phi

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Delta Kappa (Frymier) conducted a study involving 21,706 students from 276 schools that identified 34 risk factors in five categories of students who fail in school: personal pain, academic failure, family tragedy, family socioeconomic situation, and family instability. The major conclusion of this study was that: children who hurt, hurt all over. Children who fail, often fail in everything they do. Risk is pervasive. If a student is at risk in one area, that student is very likely to be at risk in many other areas. (p. 257)

In two recent reviews of research related to the underachievement of academically talented students, Reis (1998) and Reis and McCoach (2000) summarized the following research findings about underachievement from the last five decades of research:

1. The beginning stages of underachievement occur in elementary school, perhaps due to a nonchallenging curriculum. A relationship seems to exist between inappropriate or too easy content in elementary school and underachievement in middle or high school.
2. Underachievement appears to be periodic and episodic, occurring in some years and not others and in some classes but not others. However, eventually increasing episodes of underachievement will result in a more chronic pattern for many students.
3. Parental issues interact with the behaviors of some underachievers, yet no clear pattern exists about the types of parental behaviors that may influence or cause underachievement.
4. Peers can play a major role in preventing underachievement from occurring in their closest friends, making peer groups that support achievement an important part of preventing and reversing underachievement.
5. Busier adolescents who are involved in clubs, extracurricular activities, sports, and religious activities are less likely to underachieve in school.
6. Regular patterns of work and practice seem to help talented students develop an achievement model in their own lives. Music, dance and art lessons, and regular time for homework and reading can be very helpful for developing positive self-regulation strategies.
7. A caring adult, such as a counselor, coach or an academic content teacher, can help to reverse the process of underachievement.
8. Few interventions have been tried to reverse underachievement, and more research on interventions is needed.

Resilience Theory

The reasons that some students achieve at high levels, even when they encounter difficult situations and pressures, are of great interest to both researchers and practitioners. Resilience theory attempts to explain academic achievement among students who encounter negative psychological and environmental situations. No single definition of resilience exists. Rather, several different definitions and descriptions of resilience have been offered in the research literature. Wolin and Wolin (1993) describe resilient individuals as hardy, invulnerable and invincible. Resilience has been described as a protective mechanism that modifies an individual's response to a risk (Rutter, 1981, 1987) or as adjustment despite negative life events. Rutter (1987) defines resilience as a "positive role of individual differences in people's response to stress and adversity" (p. 316). Waxman (1992) believes that attending a school that is considered an "at risk" school can be considered an adverse situation,

arguing that educational resilience must be present for some young people to succeed. In a definition that is most aligned with the research discussed in this article, Wang, Haertel, and Walberg (1994) define educational resilience as "the heightened likelihood of success in school and other life accomplishments despite environmental adversities brought about by early traits, conditions, and experiences" (p. 46).

Resilience is not a fixed attribute in individuals, and the successful negotiation of psychological risks at one point in a person's life does not guarantee that the individual will not react adversely to other stresses when the situations change. As Rutter (1981) stated, "If circumstances change, resilience alters" (p. 317). Certain risk factors reliably predict certain negative outcomes for youth. Poverty, for instance, has been identified as a specific predictor for criminality, and childhood abuse was identified as a predictor for later emotional and physical problems (Gordon & Song, 1994).

Some research has focused on how some individuals deal with risk situations (Doll & Lyon, 1998; Luthar & Zigler, 1991). Neihart (2001) reported that the current focus of studies on resilience is on the transactional processes of risk and protective factors in the child, family, school and community. Risk and protective factors are generally defined as variables that shift developmental pathways. Risk factors are those variables that increase negative outcomes and protective factors are those that promote positive outcomes. Protective factors such as good intellectual ability, problem-solving ability, and engagement in productive activities (Anthony & Cohler, 1987; Doll & Lyon) can serve to deflect the harmful effects of adversity. Protective factors may also include a relationship with a caring adult, which has been found to increase the achievement of children who live or learn in negative environments (Allen, 1996; Cohen & Willis, 1985; Emerick, 1992; Hébert & Beardsley, 2001; Masten & Garmezy, 1990; Reis, 1998; Reis, Hébert, Diaz, Maxfield, & Ratley, 1995; Rhodes, 1994; Werner & Smith, 1982). Risk factors such as the presence of a difficult temperament can actually increase the chances for poor social adjustment (Werner & Smith). Potential risk factors and the negative outcomes associated with them may be successfully avoided by the use of positive influences of protective factors (Doll & Lyon).

Neihart (2001) suggested that gifted children share common characteristics with resilient children, such as intelligence and curiosity (Anthony & Cohler, 1987; Garmezy & Rutter, 1983; Renzulli, 1986), self-efficacy (Garmezy & Rutter, 1983; Masten & Garmezy, 1990), sense of humor (Hébert & Beardsley, 2001; Rutter, 1987), and problem-solving ability (Masten & Garmezy, 1990). Academically talented children and resilient children often have parents who do not demand conformity but enable children to develop with some autonomy and a positive explanatory style (Dai & Feldhusen, 1996).

Bland, Sowa and Callahan (1994) suggested the importance of research on the resilience of high achieving students but cautioned that although some common characteristics exist, many talented students do not develop resilience. McMillan and Reed (1994) discussed the need to understand how resilience promotes success in students. They describe resilient at-risk students as those who "have a set of personality characteristics, dispositions, and beliefs that promote their academic success regardless of their backgrounds or current circumstances" (p. 139). Resilient students have a strong sense of self-efficacy and believe they are successful because they choose to be. They also have a psychological support system both in and out of school

that provides encouragement to them. They use their time positively to "provide [for themselves] a sense of support, success, and recognition" (p. 139). Ford (1994) found that resilient Black youth have an internal locus of control, a positive sense of self and feelings of empowerment. Ford also identified barriers to the development of resilience in academically talented Black youth, including peer pressures and complex socio-psychological and contextual factors such as racial identity, relationships with teachers and counselors, experiences of discrimination, and peer relationships.

Although theorists have suggested various explanations for the reasons some high potential students placed at risk achieve in school while others do not, little research has examined the resilience of academically talented students who achieve in school as compared to those of similar ability who do not achieve. Exploring what enables some individuals to thrive, such as social support from adults and peers, will contribute to the limited research on resilience in academically talented students and will perhaps suggest strategies that may be implemented to help these students learn to employ resilience strategies as they pursue high levels of academic achievement.

Research Methodology

In this qualitative, comparative cross-case study (Gall, Borg, & Gall, 2002; Miles & Huberman, 1994; Yin, 1994), descriptive cross-case analysis was used to collect and analyze data from over 3 years of data collection in an urban high school as well as background data from participants' preschool, elementary, and middle school education. Miles and Huberman believe that studying multiple cases can increase generalizability and develop more sophisticated descriptions and more powerful explanations. Composites of a number of case studies resulted in descriptors of common characteristics of academically talented students who achieved or underachieved in an urban high school (Reis et al, 1995). Case study methodology is also appropriate when prior theory guides data collection and analysis and researchers attempt to account for and describe contextual conditions (Yin).

Research Questions

The following research questions guided this study:

1. What factors do high achieving students in an urban high school identify as contributing to their resilience?
2. What factors may contribute to the inability to display resilience in underachieving students placed at risk in an urban high school?

Procedure

In this comparative case study, data were gathered from the 35 subjects and a comparative case study approach was used. Miles and Huberman (1994) and Yin (1994) suggest this as an appropriate methodology for in-depth study of a number of cases in order to make analytical generalizations.

Data Collection and Analysis

A combination of participant observation and comparative case study methods was used to collect data in this study. Participant observation is a strategy ethnographers use for listening to people and watching them in their natural settings (Spradley, 1979). The students were observed over a 3-year period by three researchers for a total of 180 school days, and in their

homes and the community. Observation and interview data were collected from the students' home, social, athletic, and academic settings. Documentation encompassed students' participation in all of their subject classes as well as in a variety of other settings such as athletic events, after-school clubs and at home with parents and siblings. These observations did not have a rigid structure but were guided by an established procedure. The researchers' purpose was to approach the site as one who is new to the setting and to describe the participants' experiences. Although the school was the main focus of observation, information gained in the classroom and through interviews led the researchers to other observations and interviews.

In-depth interviewing was conducted with identified students on a continuing basis and with their teachers, administrators, school counselors, coaches, parents, siblings and other relatives, community members, and other parties as they emerged through data gathering techniques. These semistructured interviews consisted of open-ended questions designed to explore a few general topics in order not only to gain information in "the subjects' own words" but to "develop insight on how subjects interpret some piece of the world" (Bogdan & Biklen, 2002, p. 135). The interviews were conducted in order to gain an understanding of the views of the participants themselves, providing a clear picture of the experiences of high achieving students in an urban high school. Grand tour questions (Spradley, 1979) were asked of all participants in order to obtain their viewpoints on the research questions guiding the study. For example, a student might be asked "Tell me about the adults in this school who have worked closely with you" as a grand tour question with a more specific follow-up question of, "How has your guidance counselor assisted or impeded your academic achievement?" The participant's responses to the general questions guided the direction of the interview, with the goal of obtaining a deeper understanding of each participant's point of view.

Appropriate documents were also obtained from students' cumulative school records or requested from participants, including gifted program identification policies, as well as samples of student work, programs from concerts, or posters advertising student clubs and extra-curricular activities. The review of documents while conducting observations and interviews provided a clearer picture of participants. A thick, descriptive case study was constructed for each participant in the study. The total field study transpired across 3 years until data saturation was reached. Data saturation occurred when the information yielded became redundant and no longer offered useful reinforcement of previously learned information (Bogdan & Biklen, 2002).

Because case studies involve in-depth study of a small number of purposively selected cases, they enable researchers to make analytical generalizations (Miles & Huberman, 1994; Yin, 1994) through the use of matrices of evidence, data displays, tabulation of frequencies, examination of the complexity of tabulations and their relationships, and the placement of information into chronological order (Yin, 1994). Data analysis techniques included the use of a coding paradigm described by Strauss and Corbin (1990), as well as coding suggested by the same researchers, including three levels: open coding, axial coding, and selective coding. The initial type of coding, known as open coding, involved unrestricted coding of all students responses across the four groups. In open coding, data were analyzed and coded. As researchers verified codes and determined relationships among and between codes, a determination was made about the relationship of a code to a category. After initial categories were determined, axial coding

enabled the researchers to specify relationships among the many categories that emerged in open coding, and, ultimately, resulted in the conceptualization of one or more categories selected as the "core." A core category accounted for most of the variation in a pattern of behavior. In the final stage of coding, selective coding, the relationships among categories were examined to determine the saturation of categories in the identification of the core category. Each of the open-ended questions addressed in this analysis was analyzed separately.

Trustworthiness of the Study

The following techniques discussed by Marshall and Rossman (1989) were used to establish the trustworthiness of this study: Research partners or persons playing "devil's advocate" and critically questioning the researcher's analyses; constantly searching for negative instances; checking and rechecking the data; purposeful testing of rival hypotheses; asking questions of the data; and conducting an audit of the data collection and analytic methods. In this study, the accuracy of the observations and the trustworthiness of this investigation were enhanced by the use of: tape-recorded interviews and field notes that enabled the researchers to examine and clarify information; photography that was used to document and study specific situations and/or settings that required more than a single view; triangulation between methods; depth of detail; and continuous cross-checking for accuracy. The methods, procedures, and strategies used to ensure accuracy included: observations of informants in various settings; interviews with informants, teachers, relatives, and others; document review; and photography. In addition, to establish and maintain high data quality, all recorded data were monitored. To further increase trustworthiness, all researchers kept journals during the fieldwork, and regular conversations were scheduled between researchers in order to explore ideas and conduct data checks.

Participants

Participants in the study were 35 high ability students who were freshmen or sophomores at the beginning of the study which lasted 3 years. Table 1 includes descriptive information. All students are referred to by pseudonyms.

For the purpose of this study, high ability students were defined as those demonstrating well above average potential as measured by a score above the 90th percentile using local norms on standardized intelligence or achievement tests during his or her school career, as well as superior performance in one or more academic areas at some point during elementary or secondary school. The participants were recommended by the high school's guidance counselors and administrators and were identified for the study as achievers when three of the following four criteria were met: (1) identified and enrolled in an academic gifted elementary or middle school program, (2) achieved at a superior level academically as evidenced by high grades, (3) nominated for the study by a teacher/counselor and (4) received various academic awards and honors. Information such as school records, test information, outstanding performance in one or more academic areas, awards and honors, product information, and teacher's anecdotal records from an academic portfolio were used to document the level of high ability.

For the purpose of this study, underachieving students ($n=17$) were defined as students with high potential, as evidenced by academic achievement or intelligence test results of above the 90th percentile using local norms, who were not achieving at a level that was expected based on this potential.

These students, for example, may not have been enrolled in any advanced level or honors courses. They were receiving lower grades than what would be expected given their potential. Additionally, the following criteria were individually or collectively examined to select underachieving students for this study. The participant: (1) was identified and enrolled in a gifted program in elementary or middle school and had previously achieved at a superior level academically as evidenced by grades, teacher observation, awards or honors; (2) previously displayed consistently strong academic performance with grades of B or better in elementary and junior high school; (3) was currently maintaining a grade point average of 2.0 or lower; (4) consistently enrolled in non-college-bound or general classes; (5) was no longer in school, having dropped out or become truant. A brief case study of one participant is included to provide an example of academically talented students who either achieved or underachieved in this high school.

Yvellise. Wearing little make-up, gold loop earrings, which stood out from her long chestnut hair, a long sleeved yellow silk blouse, dark blue jeans, brown suede shoes, and manicured long nails, Yvellise smiled shyly and spoke in a soft voice. She explained that she lived with her parents and two older sisters and had moved several times between the States and Puerto Rico. Her family had lived in the city since 1991. Her mother was a housewife who was experiencing a difficult time because one of her brothers was hospitalized with AIDS. Her father owned an auto parts store in partnership with another brother-in-law. Yvellise's oldest sister was 25 years old and planned to attend college in the near future. Her older sister was 22 years old and was currently attending a state college majoring in psychology. Yvellise was more comfortable with this 22-year-old sister because they shared similar interests.

At the age of eight, when Yvellise first arrived in the United States, her parents immediately enrolled her in third grade and she was placed in a bilingual program. The transition was challenging for her but her fifth grade teachers described her as "a nice girl" who "likes to work hard" and was "very motivated regarding school work," but still "could do better work." Her fifth grade report card indicated Bs and Cs and a teacher's note said: "Yvellise puede mejorar sus notas ya que tiene el potencial y no lo está usando al máximo." (Yvellise could improve her grades because she has the potential, but she is not using it to the maximum.) Then, her family returned to Puerto Rico. Two years later, Yvellise's family came back to the United States. This time, Yvellise began seventh grade and was again enrolled in a bilingual program. Her school performance was excellent as evidenced by consistently superior grades on her report card and achievement scores in the top 3-5 percentile. Teachers described Yvellise as a "top student" who did "outstanding work" and had "mature, excellent behavior." Other comments included, "Her English has really improved," and "I enjoy having her in class." She was nominated for and began participating in the gifted program the same year. In her cumulative record, the following note appeared: "She was a very bright student, mature, well-behaved, and developed an excellent command of English. She had high potential." During the early years of the study, Yvellise's grades declined sharply and she was taken out of all of her honors classes during her freshman year in high school.

Yvellise explained the change in her academic performance in high school by saying,

I don't have the grades that I used to have. I want to do better, but I don't know . . . I don't like coming to

individuals because of the variety of people with whom they interacted, and they knew their experiences in their urban high school, both positive and negative, prepared them with a more realistic view for their future.

Protective Factors Contributing to the Development of Resilience in High Achieving Students

Various protective factors seemed to contribute to the development of resilience in the high achieving students, including: belief in self, personal characteristics (sensitivity, independence, determination to succeed, appreciation of cultural diversity, inner will); support systems (honors classes, a network for high achieving students, family support, supportive adults); participation in special programs, extracurricular activities, and summer enrichment programs; and appropriately challenging advanced classes.

The development of a strong belief in self was evident in all high achieving participants, and was manifested in an understanding about who they were, what they wanted to achieve in life, and the direction they needed to take to realize their goals. This positive sense of self developed despite the urban environment, which surrounded them with negative circumstances including economic struggles and poverty, the pervasive availability of drugs, gang and community violence, and family or peer group problems. Common personal characteristics demonstrated by the achieving participants in addition to resilience included determination, motivation and inner will, positive use of problem solving, independence, realistic aspirations, heightened sensitivity to each other and the world around them, and appreciation of cultural diversity.

Protective factors also included support networks that existed within the high school to develop the achievement of these students, including other high achieving peers, family members, supportive teachers in previous years, and other adults. Their peer support system consisted of friends who wanted to succeed academically and were willing and able to work to achieve this goal, and various teachers, coaches, counselors, and administrators. This network was absolutely essential to the academic success of most of the achieving participants in this study.

All of the high achieving students were involved in numerous activities that were held both during and after school hours and remained in their high school for hours after school each day for a wide variety of activities. Those who were 16 all worked part-time in jobs nearby, usually for 10-15 hours each week. All participated in more than one sport and all were also involved in numerous school clubs and activities, including jazz band, foreign language clubs, service groups, and academic competitions. These extracurricular activities had a major impact on these young people, as they were consistently cited as being extremely influential in the development of their resilience, their positive use of spare time, and their ability to excel academically. Many were productively busy every day for several hours after school, which gave them little time to fall prey to some of the urban problems that troubled their less productive peers, including drugs and gangs. Another major factor that students believed contributed to their successful academic achievement was their involvement in honors classes. High achievers believed that honors classes provided them with the opportunity to work hard and to be grouped with other students who wanted to work and to learn.

Most of the participants in this study appeared to have families that nurtured them in different ways and at different levels. Some participants had extremely supportive families

while other participants' families provided minimal levels of emotional or financial support. Although the parents of all high achieving students regarded school and learning as very important to improving one's situation in life, they had minimal involvement in their high school experience.

Risk Factors Experienced by Underachieving Students

The high ability underachieving students experienced several risk factors that may have contributed to their low performance in school. They perceive their school experiences as boring and most indicated that their classes did not match their preferred learning style. The students who underachieved also experienced personal and family problems, such as abusive parents, negative sibling issues, and absence of parental help or monitoring. They also had difficulty establishing positive peer networks and with the constructive use of unstructured time.

The risk factors that seemed to negatively affect the academic achievement of these high ability young students included inappropriate early curricular experiences, absence of opportunities to develop appropriate school work habits, negative interactions with teachers, absence of challenge in high school, and questionable counseling experiences. The underachievers were bored with their curriculum, negatively influenced by their peers and their dismal surroundings, and had developed few strategies for constructively dealing with these problems. These problems resulted in behavior problems and disciplinary issues, too much unstructured time, confused or unrealistic aspirations, insufficient perseverance and low self-efficacy.

A series of family issues also negatively affected the lives of the high ability underachievers, including family dysfunction and conflict, difficult relations with family members, sibling problems and rivalry, inconsistent role models and value systems in the family, minimal parental academic guidance and support, inconsistent parental monitoring of students' achievement-oriented activities, and inappropriate parental expectations. Again, the high achieving students also had a number of similar family issues but had learned to cope with these challenges.

The findings in this study indicate that achievement and underachievement in this urban high school were not disparate concepts. In many cases, students who had begun underachieving had achieved at high levels in the previous year or semester in school. Some of the high achieving students also experienced periods of underachievement in school; however, they were supported in their achievement by a network of high achieving peers who refused to let their friends falter in school. For these students, achievement was like walking up a crowded staircase. If students started to underachieve and tried to turn and walk down the staircase, many other students pushed them back up the staircase. Once, however, the cycle of underachievement began and a student went down that crowded staircase, it was extremely difficult to turn around and climb back up.

Exploring Factors That May Have Affected the Development of Resilience

Personal and contextual variables and situational and environmental factors were examined to explore the resilience of the high achieving students who succeeded in school. As indicated in Table 2, some common factors, considered protective factors, occurred in participants who succeeded in school as compared with those who did not. For example, the same number of students in each group had parents who had been divorced but achieving and underachieving students reacted to

Selected Factors Influencing Resilience in High Ability Achievers and Underachievers

Family Issues	Achievers	Underachievers
Parents Divorced	8	8
Three or more siblings	6	3
Sibling(s) dropped out of school or involved in drug or alcohol abuse	0	6
Father involved in upbringing	12	11
Mother involved in upbringing	17	16
Father employed	12	9
Mother employed	14	10
Father graduated from high school	13	12
Father graduated from college	6	1
Mother graduated from college	2	2
Religious home environment	8	4
Parent mentioned as positive role model	5	1
Teacher/counselor mentioned as positive role model	10	2
Boyfriend/girlfriend	2	4
Chose not to date (females)	6	1
Participated in school extracurricular activities	16	2
Participated in sports (during school year)	14	7
Participated in summer programs	7	1
High level of involvement in a gifted/talented program in elementary and middle school	10	5
Positive peer support for academic achievement	16	1

Table 2

the divorce very differently. Almost identical numbers had parents who were involved in their lives, although the level and type of involvement varied. Some participants in both groups had a parent with whom they lived and yet who was able to provide only minimal levels of economic support. Differences did exist between the two groups; for example, a majority of those who achieved in school had parents who were employed.

Other key factors that seemed to differ in students who achieved as opposed to those who did not included the following factors: the presence of positive peer support; involvement in extracurricular activities, sports programs, summer programs, and gifted programs; positive parental role modeling; type and degree of parental involvement and parental education; participation in an elementary or middle school gifted and talented program; involvement with a teacher or a counselor as a role model; and to a lesser degree, participation in religious training; and for girls, a conscious decision not to date. A sample of these personal and contextual variables and situational and environmental factors that can be categorized as risk, protective or mediating mechanisms are further elaborated upon in the appendix with representative comments of the participants.

In this study, some underachieving students experienced risk factors that may have proven too difficult to overcome, such as having older siblings who had either dropped out of school or had become involved in drugs or alcohol. Although some family problems occurred in similar numbers of students in both groups, a different type and severity of problems were experienced by those underachieving students who failed to develop resilience, suggesting that these risk factors were simply too difficult or that the risk factors were not accompanied by key protective factors, such as having a teacher or a counselor as a role model; participation in sports, summer programs, or extracurricular activities; involvement in a gifted program; peer support for academic achievement; and active avoidance of romantic involvement (for females).

Discussion

This study explored the development of resilience in talented students who succeeded in a large urban school and the lack of resilience among talented students who did not succeed. Resilience seemed to develop from a combination of specific personal, environmental and social issues and, for these students, can be defined as the ability to experience stress and adversity, while simultaneously experiencing protective factors that may have helped them to develop positive personal characteristics necessary for high achievement in school. These personal characteristics included belief in self, determination, motivation, constructive use of time, and the ability to work hard in honors classes, extra-curricular activities, and sports. As with other previous research, this study suggests that one necessary protective factor was the presence of at least one supportive adult for achievement to occur and resilience to develop. That adult did not have to be a parent, but at least one parent was needed for minimal levels of economic and family support. Peer support was also essential, as were productive activities, often after school or in the summer, which helped to develop talents and positive personality characteristics. Although faced with difficulties, the high achieving students in this study learned to persevere, become strong, and succeed.

Most of the underachieving students experienced some unhappy childhood experiences and had little support and this may have contributed to their inability to develop resilience because their risk factors overshadowed their protective factors. A careful analysis of the data suggests that the risk factors that may have thwarted the development of resilience were the absence of positive peer support (peers who achieved in school); siblings who dropped out of school or were involved in substance abuse; absence of positive parental role models or at least one supportive adult; and lack of involvement in an elementary or middle school gifted program. For these underachieving students who did not develop resilience, interaction with protective factors was minimal as they had little to no involvement in extracurricular activities, clubs, sports, or summer programs, and far too much unstructured time after school.

Applying Resilience Research to the Underachievement of High Ability Students

Applying these preliminary findings to guidance and counseling for high ability students has several advantages. Neihart (2001) suggests the importance of research on resilience and gifted students for three reasons. First, risk and resilience in children has been studied for more than 40 years. Second, the concepts are familiar to several disciplines, providing a shared vocabulary to communicate ideas and further research. Third, the concepts provide a practical framework for the identification and development of differentiated affective supports necessary to facilitate positive outcomes for gifted students.

This study suggests that counseling and guidance efforts for gifted children should focus on reducing the risks of maladjustment while strengthening the factors that enhance positive outcomes. The goal should be to reduce the negative impact of some events while building resources that enable the child to cope effectively. Neihart (2001) suggests that when educators and researchers use these concepts as the scaffolding on which to build affective supports for the gifted, they will ask, "What are the risk factors for gifted students?"

What are the protective factors? And what are the mediating mechanisms that help keep a gifted child on the developmental trajectory for positive outcomes?"

School Counseling Programs to Promote Positive Outcomes

This study provides a rationale for the development of comprehensive developmental school counseling programs that can address the questions about protective factors and mediating mechanisms raised by Neihart (2001). In the past, school counselors worked most often with students one-on-one or in small groups. Contemporary school counselors can be encouraged to work in collaboration with teachers, administrators, parents, and other stakeholders to ensure that students follow a positive developmental path (American School Counselor Association [ASCA], 2003; Gottlieb, 2001). The primary goal of a school counseling program is consistent with the central findings of this study, and the means through which this goal is accomplished are consistent with programs and strategies that might have helped underachieving students in this study. An appropriate counseling program during middle and high school might help to explore their developmental status within the personal/social, career, and academic domains (ASCA). For example, students who underachieved might participate in discussion groups in which they analyzed how they spend their after school time (personal/social) and how the decision to use their time in a certain way affects their academic goals and performance.

With a better knowledge of students' developmental status, school counseling team members may be able to gain a clearer idea of students' developmental needs and could develop appropriate program activities that might reduce risk factors of maladjustment while simultaneously strengthening the factors that enhance positive outcomes. The monitoring of students' development might include guidance lessons and small groups for helping students make the connection between what they do in school and later life. Also, collaborative efforts with administrators and community members could provide after-school activities for these talented students at risk for underachievement, and help to prevent them from establishing the habit of unproductive activities during unstructured times.

Also, school counselors and teachers could work closely to ensure that academic experiences are commensurate with students' abilities and learning styles. For instance, students who are underachieving could be placed in academically challenging classes. The school counselors could gain access to students' learning assessment results and combine that with knowledge gained through school counseling program activities to help inform all teachers of students' unique learning styles. Such experiences might help prevent some students from underachieving in school.

With strengthened academic experiences, the underachieving students in this study might have entered high school with enhanced academic self-concepts, continued motivation for learning, and stronger beliefs in themselves. These school counseling program activities could have been an essential component of an ongoing program, and we can only speculate that if these students had the opportunity to participate in this type of school counseling program, they would have had a mediating mechanism for remaining on an appropriate developmental trajectory to realize their high potential and achieve their goals.

This research study was exploratory in nature and provided some preliminary data suggesting that certain risk factors can increase negative outcomes and certain protective factors can promote positive outcomes in talented urban students. The protective factors for the high ability students who achieved despite encountering obstacles were supportive families, peers and adults, caring teachers and counselors, challenging classes, and participation in numerous in-school and extracurricular activities. The risk factors shifted developmental pathways toward negative outcomes. In this study, these variables were both individual and contextual. For example, underachieving students had few peers who were achieving in school, had relatively few positive adult role models and participated in few after-school or summer activities. They had siblings who had dropped out of school or had problems with drugs. These potential negative outcomes associated with risk factors may have been successfully avoided by the presence of one or more of the protective factors that were experienced by the high achieving students, such as positive peer support for achievement or participation in a summer program for gifted and talented students.

These findings may suggest that more proactive counseling services might have helped students who were underachieving in this high school. Another important contributor to resilience might have been a different school schedule for the underachieving students, one that began at the same early hour but ended later in the day, enabling the incorporation of many of the activities that were beneficial to the high achieving students as required activities for *underachieving* students. These students regularly left school at 1:50 each afternoon and spent the next several hours in unproductive use of their time. The school day was too short for these high ability students who often chose not to engage in productive activities after school. This after-school time could have been used for participation in sports, extracurricular activities, counseling and other positive study strategies that might have helped these talented young people to develop their potential.

Many talents remained unrecognized in this urban high school where many high ability students were underachieving. While some academically talented students developed the work habits and resilience they needed to either survive or excel, others withered quietly, forgotten and anonymous in a large high school where few teachers realized their potential. These students did not encounter the protective factors that may have helped their high achieving peers to succeed in their school environments with optimism and courage. Based on this research, high school counselors or gifted coordinators may consider including the following components that may act as protective factors to help facilitate the development of resilience: after-school and summer programs, time with additional adult counselors and positive role models, more challenging classes, gifted programs, and peer support programs. Without more conscious efforts to provide intervention for these talented students, many more may experience underachievement in school that may, unfortunately, lead to underachievement later in life. Matteo eloquently summarizes the resilience displayed by so many of the achieving students and the pain many of them feel despite their ability to achieve in this environment:

You can never be prepared for it. When someone kicks you down, it hurts just as bad. I was talking to a friend yesterday who is a diabetic. He said, "You can't tell me that you can learn to deal with pain. I am

diabetic. I have a fear of needles. I take a shot three times a day. That needle hurts just as bad the first time as it does today. It still hurts the same.” In this school, you just learn how the pain feels and you get accustomed to it. Some people lose because they are not strong enough to fight the pain. They may be stronger people but it still hurts every time they lose. Any time you are kicked down, it still hurts. But I have learned to get up again.

These difficulties and challenges enabled some students to develop the protective factors necessary to excel in school, but not all students were successful. Doll and Lyon (1998) suggest a focus on reducing or eliminating risk factors, enhancing protective factors, and developing the mediating mechanisms known to facilitate positive outcomes. If educators do not make conscious efforts to provide intervention for these students, we may lose many more who do not or cannot take the steps to help themselves.

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Appendix

Examples of Protective and Risk Factors and Mediating Mechanisms of Academically Talented Students Who Either Achieved or Underachieved in High School

Siblings Involved in Drug or Alcohol Abuse as a Risk Factor for Underachieving Students

Tense relationships with siblings negatively influenced some students' disposition to learn and may have contributed to their underachievement. Participants reported that discord with their siblings occurred because of the use of drugs, a risk factor. Chico explained:

He is . . . up. He's an addict. He's just hurting my mother. I don't care about him. Today, I had an argument with him. I told him I was going to hit him. I had hit him. I don't respect him for nothing. My brother ain't nothing. Some of my older brothers, they lecture me and I don't like it. "Don't mess up in school. Don't start selling drugs. Don't join a gang. Don't do this. Don't do that."

Lack Of Teachers as Role Models or Support Systems as a Risk Factor for Underachieving Students

John described classrooms where he felt the apathy squelching class discussions and he personally stopped responding to teachers, explaining:

Teachers never know the talent of the students here because they don't want to answer questions. I know a lot of times, we'll be having open discussions and the teacher will ask questions. I know the kids know the answers. They just don't bother to answer. They look at the teacher as though they are stupid. My English teacher is always asking a lot of questions and they are so simple. They are so simple! I know they learned this simple stuff in elementary school. Nobody wants to admit it.

Continued on page 120

Examples of Protective and Risk Factors and Mediating Mechanisms of Academically Talented Students Who Either Achieved or Underachieved in High School

Lack of Participation in After-School or Summer Activities as a Risk Factor for Underachieving Students

The majority of the underachievers were not involved in any activities related to school. They saw the environment as part of their problem and many admitted they chose a peer group that negatively influenced them and led them into disciplinary trouble. Because of their unstructured time, their school environment became a place to seek adventure in inappropriate ways. Several of them placed the blame for their lack of success on school-related issues. One student captured this feeling when he said:

It's a place to hang out. Everybody like me stays in school for social reasons cause we get to see friends here every day. The surroundings rub off on me and I get into bad stuff that I know hurts my chances of success. But I just do it.

Parental Involvement as a Mediating Mechanism for Achieving Students

Jana, a high achieving student, explained the impact of both of her parents' involvement in her success. Jana explained that she and her siblings received support from their mother to do their homework each night as described in the following family scenario:

I work on my homework for three or four hours every night. I am not athletic, but I have been the manager of two athletic clubs here. However, due to recent shootings, my mother made me hold off on my after-school activities for safety reasons. Now she tells me that I can spend even more time on my homework and be a good role model for my siblings.

Teacher/Counselor as Role Model as a Mediating Mechanism for Achieving Students

Rosa often spent 5 hours a night on homework and described herself as a hard worker. She participated in an elementary school gifted and talented program and many special programs within the state. She acknowledged the help and encouragement of some of her elementary and high school teachers and also indicated that her counselor was extremely supportive of her. "He is always looking for me to fill out something for a special program, award, or scholarship." In Rosa's case, these opportunities may have enabled her to increase her chances for an Ivy League university and she attended Brown University.

Participation in Summer Enrichment Programs as Mediating Mechanisms for Achieving Students

Mandy described her change in attitude after participating in a summer program for academically talented students: Part of that came out too because I started writing. I started writing and learning things about myself. Now I know that I could write before and that I could express myself without anybody going like "what are you talking about" or "that's stupid." I write down what I think and what I feel. Before this program, I had very low self-esteem, and lacked confidence in myself. I used to think, me? Go to college? Yeah, right! Me, I don't think so. After this program, I learned that I can make it in college.

Religious Home Environment as a Protective Factor for Achieving Students

Orlando's inner will, according to him, developed from his strong religious convictions, explaining: I believe in the Lord. I believe that I have to put forth my part also, but there is no doubt about it. If you help yourself, God will help you. My gifts and talents come from the Lord. My success is through Jesus Christ.

Girls Deciding Not to Date as a Protective Factor for Achieving Students

Jana was extremely determined to be independent. She said she did not want to be like her mother who had given birth to three children with three different fathers, two of whom she had not married. Jana said although she loved her mother, she did not want to be like her. She also explained that she had seen too many Hispanic men who want to be "in control of everything."

Participation in School Extracurricular Activities and Sports as a Protective Factor for Achieving Students

Marisa and most other participants explain how they removed themselves from problems by keeping busy with other activities: No, I have learned not to get involved with anybody that has to do with gangs. I may be their associate, but I stay away from that because it just brings trouble. Instead, I focus on my clubs and my sports.

All of the high achieving students participated in athletics or management of athletic teams and this also seemed to help develop their protective behaviors and resilience. Mary described her coach and the relationships that she encouraged:

Swim team, for some reason—I don't understand it—they're all honors kids. I mean it. There's really no relation there, but they're all. Both of our coaches push very highly for, "Go home and do your homework," and that's important. That's very important. Most of the people on the swim team are either honors or academics. Those are probably my best friends and then I have a lot of others just from classes and a few from softball.

Positive Peer Support for Academic Achievement as a Protective Factor for Achieving Students

Jana was ultimately identified as a high achiever in this study and yet her academic experiences were inconsistent in her earlier years of high school. Several times during the course of this study, Jana's work began to falter and her high grades were in jeopardy. Often, other high achieving peers would call her at night to encourage her to complete her homework or study for a test, invite her to join a study group, remind her to study for a test, and keep her on track. Her female high achieving peers also brought her to see members of the research team, believing that if she discussed her aspirations, she would be more committed to achieving excellence. She explained that, "My female peer network was the major factor that kept me achieving this way."