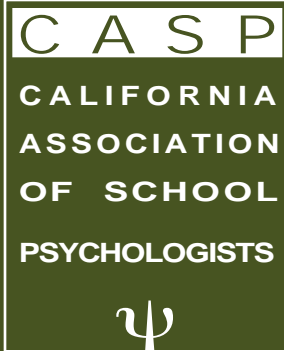


2004 Volume 9



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Includes a Special Topic Section:

**Strength-Based Assessment,  
Youth Development, and  
School Success**

# *The California School Psychologist*

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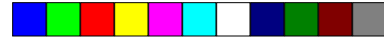
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2004, Volume 9

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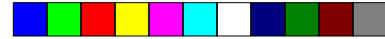
## **The California School Psychologist Provides Valuable Information Regarding Strength-Based Assessment, Youth Development, and School Success**

Shane R. Jimerson  
*University of California, Santa Barbara*

This issue of *The California School Psychologist* includes important information regarding strength-based assessment in facilitating youth development and school success. This collection of articles provides valuable insights that will inform contemporary school psychologists working in the schools, as well as contribute to the foundation and future direction of scholarship in the field of school psychology. Previous articles published in *The California School Psychologist*, including those in the recent volume addressing school engagement, are available on-line at [www.education.ucsb.edu/school-psychology](http://www.education.ucsb.edu/school-psychology).

This volume includes the special topic section on Strength-Based Assessment, Youth Development, and School Success. The Center for School-Based Youth Development at the University of California, Santa Barbara (UCSB) is sponsoring this special section of *The California School Psychologist*. Resources for this initiative were made possible through a Gevirtz Graduate School of Education - Funds for Excellence Grant from Don and Marilyn Gevirtz. It is the mission of the UCSB Center for School-Based Youth Development to enhance school engagement for all students through strength-based assessment and targeted interventions designed to promote social and cognitive competence. This mission is facilitated through research and development and by increasing the cadre of educators who are knowledgeable about and support a comprehensive and coordinated approach to student support services. Drs. Furlong, Jimerson, Morrison, and Cosden are the UCSB faculty collaborating to establish the Center for School-Based Youth Development. For additional information about the Center, you may visit its website at [www.education.ucsb.edu/school-psychology](http://www.education.ucsb.edu/school-psychology).

Recent trends in scholarship reflect an increasing awareness and emphasis on the connections between strength-based assessment, youth development, and school success. The emerging literature addressing facilitating student strengths and promoting developmental assets highlights the importance of further understanding strength-based assessment. Strength-based assessment is an emerging topic of professional and scholarly interest that warrants further consideration and scrutiny, partially in response to the pervasive use of deficit or problem-oriented assessment strategies and also as a potential mechanism to enhance our understanding of youth development, and promote school success. There are an assortment of powerful influences on developmental trajectories and educational success (e.g., school dropout, violence prevention, and promoting the well-being of students). It is important that school psychologists better understand whether or not incorporating assessments that yield information regarding both the problems and assets that a given youth possesses or has experienced may inform intervention strategies to enhance developmental and educational outcomes. Amidst an era emphasizing "standards and accountability" in education, it is particularly important to consider the dynamic interplay between socio-emotional, behavioral, and cognitive development as they influence academic success and learning. Promoting the social and cognitive competence of all stu-



dents is essential in facilitating the academic success of students in schools. This issue of *The California School Psychologist* journal provides information addressing five broad areas of scholarship: (a) an overview of conceptual considerations regarding strength-based assessment, (b) a review of literature related to strength-based assessment, (c) empirical articles related to strength-based assessment, (d) application articles demonstrating the uses and implications of strength-based assessment strategies for practitioners, and (e) an emphasis on incorporating this information into preparing future professionals.

This volume of *The California School Psychologist* offers numerous articles that address important aspects of strength-based assessment, youth development, and school success, including: a summary of strength-based assessment as related to the field of school psychology, empirical articles examining various measures that include strength-based dimensions, studies that investigate the association of assets and behaviors among students, reviews of conceptual underpinnings and paradigm shifts, and overviews of programs that incorporated strength-based assessment and aimed at promoting positive youth development. Two additional articles that are included in this volume provide information regarding a dropout and needs assessment, and a particularly thought provoking article addressing how the overrepresentation of African Americans receiving special education services has been navigated in California. The following highlights from each article provide an overview of the topics addressed in this volume.

The first article (Jimerson, Sharkey, Nyborg, & Furlong, 2004) highlights the increasing interest in positive psychology, and an emerging shift away from the traditional deficit-based model of mental health towards a framework that emphasizes social-emotional strengths. The authors indicate that the building of strengths and an emphasis on the prevention of problems are at the forefront of positive psychology and are likely to be equally important in the field of school psychology. Building upon a review of the extant literature, this article addresses four questions: (a) What is strength-based assessment? (b) Why use strength-based assessment in school psychology? (c) What are examples of strength-based assessments? and (d) What are the limitations and needs for further research related to strength-based assessment? The authors discuss the implications for both research and practice.

The second article (Buckley & Epstein, 2004) emphasizes that few instruments are available to school psychologists that allow for systematic and comprehensive evaluation of a student's emotional and behavioral strengths. The authors discuss the Behavioral and Emotional Ratings Scale (BERS), which was developed in response to the need for a valid and reliable instrument for assessing and evaluating strengths. This article provides valuable information on the restandardized BERS with two additional scales: a parent rating scale and a youth self-report scale. This article discusses: (a) strength-based assessment in school psychological practice, (b) the development of the BERS-2, and (c) the use of the BERS-2 in school psychological practice.

The third article (Lubbe & Eloff, 2004) provides a unique international perspective regarding the emerging trend toward a philosophy of assessment that is asset-based and strength focused. This article reports the results from a study that explored perceptions about asset-based assessment in Educational Psychology in South Africa (Educational Psychology in South Africa, as well as other parts of the world, is the term used to describe professionals in the field of School Psychology in the United States). The authors conclude that the results of this study reveal that educational psychologists perceive asset-based assessment as involving: (a) a focus on assets, (b) individual and community level assessment, (c) collaboration skills, and (d) self-reflective skills. The authors conclude that the first three themes are congruent with asset-based conceptual foundations, however, the fourth theme is currently underrepresented in asset-based literature and thus requires further research.

The fourth article (Nickerson, Brosf, & Shapiro, 2004) reports on a study of changes in skills for 84 students with emotional disturbance (ED) over a one-year time period in a private special education school, revealing variables that predicted positive outcomes for these students. The authors report that students exhibited improved peer relationships and emotional maturity, and demonstrated several strengths. Results also indicated that the students with ED were unlikely to experience success in less restrictive educational settings. Problem severity, school behavior, and skills for inclusion each predicted positive outcomes, however, none of the variables predicted placement in less restrictive educational settings. The authors highlight the importance of using strength-based approaches, in addition to using empirically supported interventions,

The fifth article (LeBuffe & Shapiro, 2004) examines the advantages of a strength-based perspective relative to the a pathology-based approach to assessment. The authors suggest theoretical advantages to strength-based assessment, including greater compatibility with early prevention efforts and increased acceptance by multiple stakeholders. The Devereux Early Childhood Assessment (DECA) is discussed as a measure of within-child protective factors in preschoolers, and used to empirically validate the utility of strength-based assessment. The authors report that the DECA discriminates between groups of preschoolers with and without emotional and behavior problems and the DECA assessment of protective factors predicted behavioral concerns as well as a standardized assessment of risk. The authors suggest that a strength-based perspective and the resilience model have great utility for universal use with preschool populations.

The sixth article (Tran & Furlong, 2004) reports on a study that examined protective factors and personal strengths in 386 adolescents as part of a high school Tobacco Use Prevention Education (TUPE) program funded by the California Department of Education. Results indicated a significant relationship between gender, smoking status, and personal strengths with smokers having lower levels of personal strengths. The authors suggest that cessation programs consider smoking within the context of youths' personal assets and their social support network. The authors also encourage school support services professionals to contribute to prevention efforts by attending to smoking behavior and its correlates when they are involved in assessments, consultation, or direct counseling with students.

The seventh article (Libby, Sedonaen, & Kooler, 2004) describes the efforts and outcomes of the Youth Leadership Institute and the California Friday Night Live Partnership (a statewide prevention program serving over 800,000 youths). This collaborative initiative set out to transform its statewide network of local prevention programs by shifting from a problem, or deficit, orientation to an approach that links effective and innovative prevention strategies with positive youth development research and best practice. The authors describe the research that informed the shift and the collaboration that brought it about. Results from the project indicate that youth participants experience many of the supports and opportunities that research has linked to positive developmental outcomes.

The eighth article (Brown, 2004) explores school engagement from a resilience perspective. Despite a 40-year research legacy, only recently have practitioners/researchers engaged in the explicit, prospective facilitation of resilience in school settings. Based on supporting theory and evidence, a process-based model is advanced to promote the explicit, prospective facilitation of resilience in school settings. The author suggests that Resilience Education (ReSed) is conducted by balancing a global youth development orientation with the specificity of supporting protective factor development. The author refers to preliminary evidence suggesting high satisfaction and internalization of the model by workshop participants. The author also suggests that ReSed offers a promising model of how "resilience" occurs, not solely as an outcome, but as a moment-to-moment learning and development process.

The ninth article (Jimerson, Sharkey, Furlong, & O'Brien, 2004) provides a review of important factors and considerations among youths displaying behavior problems and also reports the results of a study that examined the predictive validity of the Santa Barbara Assets and Risks Assessment (SB ARA) with 566 European American and Mexican American high-risk adolescents. The authors suggest that the results of this study provide evidence that the SB ARA has adequate predictive validity of recidivism. The authors highlight that the SB ARA provided prediction of recidivism, 12 months following assessment, for both females and males, revealing a different set of indicators by gender. The authors propose that the SB ARA is appropriate to use with males and females, and provides valuable information in understanding youths displaying behavior problems.

The tenth article (Cosden, Panteleakos, Gutierrez, Barazan, & Gottheil, 2004) describes the use of two strength-based assessment procedures with adolescents who have serious drug problems. The youths in this study were participants in a drug treatment court, that allowed them to remain at home and to attend their neighborhood schools. This paper examines different methods of using strength-based assessments. In Study 1, assessments are used to identify students' competencies and determine which of these factors were related to youth outcomes. In Study 2, a case study is presented in which strength-based assessments are used at the individual level to develop specific treatment plans. The authors also discuss the current state of the field, and future challenges for effective utilization of the strength-based approach to assessment and intervention.

The eleventh article (Huebner & Gilman, 2004) explores the relevance and contribution of the construct of quality of life to assessments and intervention plans for children and youth in school settings. The authors review theory, measurement, and research related to perceived quality of life (PQOL) and suggest that PQOL information contributes incremental validity above and beyond traditional deficit-based information. The authors also suggest that the use of PQOL in assessments, treatment planning, and monitoring of the well-being of students in school settings warrants further consideration to provide more comprehensive assessment-intervention activities.

The twelfth article (Miltich, Hunt, & Meyers, 2004) investigated a needs assessment survey designed to measure perceptions of causes of dropout and school violence and related interventions. The needs assessment was conceptualized as a first step to be taken by schools to facilitate program planning, school-based implementation and acceptability of programs designed to prevent school violence and dropout. The results compare survey administration in Michigan with an original sample in Georgia. The authors suggest that the results supported the five-factor model proposed in the initial research (e.g., School Connectedness, Causes of Disruptive or Violent Behavior, Causes of School Disengagement/Dropout, Interventions for Violence, and Interventions for Dropout). The authors discuss implications for future use of adapted versions of this needs assessment survey in developing effective preventive interventions.

The thirteenth article (Powers, Hagans-Murillo, & Restori, 2004) reviews major laws, regulations, court cases, policies and practices related to intelligence testing of African American students in California. The authors examine the California Department of Education (CDE) ban on intelligence testing of African American students for the purpose of determining special education eligibility [enforced by Special Education Hearing Officers (SEHO) and Coordinated Compliance Reviewers (CCR)]. Although the CDE bases its restrictions on the results of the Larry P. case, the authors contend that (a) the CDE policy runs counter to the ruling and intent of the Larry P. case, (b) overrepresentation of African Americans in special education programs continues despite the use of alternative assessment methods to measure intelligence, and (c) overrepresentation of African Americans in special education is not the result of intelligence test bias, rather, more endemic socio-political inequalities. The authors also discuss three critical questions to be considered in future responses to the Larry P. court case.

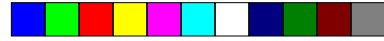




The collection of articles in this volume provide a wealth of information that may be used by educational professionals working with children, families, and colleagues to enhance the academic success and promote positive developmental trajectories of students. The use of strength-based assessment warrants further consideration by both practitioners and scholars. There is the potential for tremendous contributions for facilitating the development of youths. The authors of the manuscripts in this volume offer numerous insights and review the extant literature that is necessary to advance our understanding of strength-based assessment. In addition, it is anticipated that the manuscript addressing policies and practices related to intelligence testing of African American students in California will serve as a catalyst for further discussion and scholarship related to this particularly important topic. *The California School Psychologist* provides valuable information regarding strength-based assessment, youth development, and school success.

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## Strength-Based Assessment and School Psychology: A Summary and Synthesis

Shane R. Jimerson, Jill D. Sharkey, Vanessa Nyborg, Michael J. Furlong  
*University of California, Santa Barbara*

During the past decade there has been an increasing interest in positive psychology, which promotes a shift away from the traditional deficit-based model of mental health to a framework that emphasizes social-emotional strengths. The building of strengths and an emphasis on the prevention of problems are at the forefront of positive psychology and equally important in the field of school psychology. Based on a review of the extant literature, this article addresses four important questions: (a) What is strength-based assessment? (b) Why use strength-based assessment in school psychology? (c) What are examples of strength-based assessments? and (d) What are the limitations and needs for further research related to strength-based assessment? Implications for both research and practice are emphasized throughout.

Key Words: Strength-Based, Assessment, School, Deficits, Assets, Strengths

*Modern psychology has been co-opted by the disease model. We've become too pre-occupied with repairing damage when our focus should be on building strength and resilience, especially in children. (Seligman, 2003)*

In the new millennium, school psychologists have increasingly recognized alternatives to a deficit-based perspective regarding assessment, practice, and research that emerged from the historical disease model of human functioning pervasive in the field of psychology (Buckley, Storino, & Saarni, 2003; Rhee, Furlong, Turner, & Harari, 2001; Terjesen, Jacofsky, Froh, & DiGiuseppe, 2004). The recent zeitgeist in the field of psychology includes an emphasis on positive psychology (Huebner & Gilman, 2003; Seligman & Csikszentmihalyi, 2000; Seligman, Reivich, Jaycox, & Gillham, 1995) and the perspective that wellness is more than the absence of disease symptoms. Positive psychology advocates a change from a preoccupation with solely repairing the worst things in life to also building the best qualities in life (Seligman, 2002). Thus, the building of strengths and an emphasis on the prevention of problems are at the forefront of positive psychology (Seligman & Peterson, 2000). Likewise, the emerging emphasis on promoting "developmental assets" has focused on the strengths of youths, families, and communities (Scales & Leffert, 1999). Scales and Leffert (1999) describe developmental assets as "the positive relationships, opportunities, competencies, values, and self-perceptions that youth need to succeed" (p. 1). School psychologists have long endorsed strength-based perspectives (e.g., Lambert, 1964), and during the past decade, there has been a growing recognition and an emphasis to embrace this perspective that is promoted among some school psychology practitioners and researchers (Baker, Dilly, Aupperlee, & Patil, 2003; Chafouleas & Bray, 2004; Doll & Lyon, 1998; Miller, 1998; Nettles, Mucherah, & Jones, 2000; Rhee et al., 2001; Robertson, Harding, & Morrison, 1998; Smokowski, Reynolds, & Bezruczko, 1999; Terjesen et al., 2004).

Wieck, Rapp, Sullivan, and Kisthardt (1989) coined the term "strengths perspective" as a framework to view youths and families with greater emphasis on their strengths and competencies. The use of this approach is increasing in many disciplines and practices (Rapp, 1997; Seligman, 2002; Seligman

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Funding for the development of this manuscript was provided in part by the Don and Marilyn Gevirtz Funds for Excellence initiative. Address correspondence to Shane R. Jimerson; University of California, Santa Barbara; Gevirtz Graduate School of Education; Center for School-Based Youth Development; 2208 Phelps Hall; Santa Barbara, CA 93106-9490. E-mail: jimerson@education.ucsb.edu.

& Csikszentmihalyi, 2000). For example, a strength-based approach has been evident in the mental health field (e.g., constructive therapies; Hoyt, 1996), medical field (e.g., wellness vs. illness), community-level advocacy (e.g., asset-based storehouses vs. wastelands; Kretzman & McNight, 1993), and prevention and education research (e.g., resilience and hardiness; see reviews by Anthony, 1987; Butler, 1997; Cowan, Cowan, & Schultz, 1996; Gore & Eckenrode, 1994; Kaplan, 1999; Masten, Best, & Garmezy, 1990; Mrazek & Haggerty, 1994; Rutter, 1990). The purpose of this article is to explore the following questions: (a) What is strength-based assessment? (b) Why use strength-based assessment in school psychology? (c) What are examples of strength-based assessments? and (d) What are the limitations and needs for further research related to strength-based assessment?

### What is Strength-Based Assessment?

Developmental trajectories cannot be fully understood without an integrated focus on pathology and competence (Masten & Coatsworth, 1995) and research has shown that youths' strengths are as important to consider as their weaknesses in understanding potential for succeeding in all areas of functioning (Garmezy, 1993; Kirby & Fraser, 1997). Whereas not all children who experience significant risk ultimately experience negative outcomes, most children who have a variety of strengths experience healthy outcomes (e.g., Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999). However, much of the practice of identifying students' needs is based on a deficit model, which focuses on problems such as processing deficits, poor achievement, and social-emotional difficulties in order to prescribe intervention programs. The availability of many psychometrically sound instruments to assess mental illness and disability sustains this deficit focus (Epstein, 1999). Though psychologists, social workers, and counselors have developed informal approaches for strength-based assessment, the empirical validation of assessments examining youth strengths is in its early stages.

Subtle but significant differences between various terms associated with resiliency need to be carefully defined in order to clarify various phenomena under study. Terms such as "risk factors," "protective factors," "assets," and "resilience" all represent distinct mechanisms that are often associated with particular models proposed to explain resilience. A risk factor is any influence in a youth's life, whether biological, behavioral, environmental, sociocultural, or demographic, that increases the probability of a negative outcome. On the other hand, a protective factor is defined as any influence in a youth's life that decreases the probability of a negative outcome (Kirby & Fraser, 1997). Stress is a condition resulting from an individual's perceived inability to meet life demands that threatens the ability of the individual to function successfully (Masten et al., 1999). Asset, resource, or promotive factors increase positive developmental outcomes and decrease negative developmental outcomes regardless of adversity or risk (Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998; Sameroff & Fiese, 2000). A buffer is a factor that is only associated with a positive outcome in the presence of risk (Gore & Eckenrode, 1994). Resilience represents successful adaptation in the face of adversity (Masten et al., 1999). The development of so many similar yet distinct terms is a result of the many theoretical models developed to explain the phenomenon of resiliency.

As the development and application of strength-based instruments and assessment strategies continues, MacDonald and Validivieso (2000) offer a framework for categorizing factors related to desirable outcomes in a youth's life: (a) *Aspects of identity*—self-confidence, connection, commitment to others, self-worth, mastery and future orientation, belonging and membership, responsibility, spirituality, and self-awareness. (b) *Areas of ability*—physical health, mental health, intellectual, employment, civic, as well as social and cultural abilities. (c) *Developmental opportunities*—for exploration,

expression and creativity, adult roles and responsibilities such as group membership, contribution and service, and employment. (d) *Emotional, motivational, strategic supports*—nurturance and friendship, high expectations, standards and boundaries, options assessment and planning, and access to resources.

Many different models explaining the relative influences of risk and protective factors have been proposed; however, as a relatively new concept, little research has been conducted to critically examine existing models. According to an Additive Model or Compensatory Model, risk and protective factors are cumulative in nature, with each additional risk factor increasing the odds of a negative outcome and each additional protective factor decreasing the odds of a negative outcome (Garmezy, 1993). Under this model, the number of risk and protective factors is more important than the specific type of factor. An alternative, the Interactive Model or Risk-Protective Model, states that protective factors only come into play in the presence of risk factors. Under this model, positive parenting practices, for example, have their maximum impact only in the presence of a stressful experience such as poverty or divorce. Thus, protective factors may only buffer, interrupt, or prevent the effect of risk factors (Rutter, 2000). More recent conceptualizations of resilience have combined elements of the Additive and the Interactive models. The Protective-Protective Model proposes that it is both the presence and number of protective factors that is significant in reducing risk (Hollister-Wagner, Foshee, & Jackson, 2001). On the other hand, the Challenge Model posits that moderate levels of risk promote successful adaptation to stress, whereas low levels do not promote enough stress for action and high levels are overwhelming (O'Leary, 1998). O'Leary comments that it is the successful overcoming of challenge that results in the attainment of resilience, and in some cases, thriving.

At least four distinct but related conceptual models emerge from the literature to detail the specific influence of positive factors on outcome. First, psychologists have long had an interest in the support and promotion of psychological well-being (Lucas, Diener, & Suh, 1996). This model examines one's global sense of quality of life and is related to school psychology in psychological states such as happiness. Promoting happiness is one way to reduce the likelihood of negative outcomes for children. Huebner, in particular, has developed the *Multidimensional Student Life Satisfaction Survey* based upon this strength-based model (Gilman & Huebner, 2003; McCullough & Huebner, 2003). A second way that strength-based assessment has been conceptualized is as of an examination of positive traits, for example, intellectual functioning and athleticism are traits that can be developed and utilized to enhance a student's well-being. Such a model falls within the body of work related to the assessment constructs such as social-emotional intelligence (e.g., Ciarrochi, Chan, & Bajgar, 2001) and self-efficacy (e.g., Muris, 2001). As such, it examines the positive traits of individual youths and the development of their character; that is, these have been called "character strengths" and are valued regardless of their relationship to negative developmental outcomes. For example, when asked, adolescents indicate that leadership, practical intelligence, wisdom, social intelligence, love of learning, spirituality, and the capacity to love and be loved are traits that they value (Steen, Kachorek, & Peterson, 2003). Third, some strength-based assessment approaches have focused on those within-youth traits that help them to manage and cope with risks and life challenges (e.g., Ewart, Jorgensen, Suchday, Chen, & Matthews, 2002). A fourth way in which strength-based assessment has been considered is as protective factor—those factors outside the individual child such as family functioning, peer relationships, and community factors that can also provide a buffer to risk. Bonnie Benard offers such a model (Brown, D'Emidio-Caston, & Benard, 2000) and it provides the conceptual basis for the *Resilience Youth Development Module* of the California Healthy Kids Survey (see [www.wested.org/pub/docs/chks\\_samplerereports.html#resilience](http://www.wested.org/pub/docs/chks_samplerereports.html#resilience)).

### **Why use a Strength-Based Approach in Assessment in School Psychology?**

The profession of psychology is oriented toward the study of human behavior and cognition with the goal of improving the human experience. Historically, however, psychologists have focused on the study of abnormal development and psychopathology while ignoring the study of what factors improve academic, cognitive, and social functioning (Terjesen et al., 2004). Though in its infancy, the strengths movement has been a catalyst for the development of assessment and intervention practices based on positive youth development. Using a strength-based focus in work with youth, school psychologists can better meet the standards of their profession by fostering youths' "capacity-building" to cope with life challenges.

Although strengths are emphasized as an important component of Individualized Education Plan (IEP) processes, school psychologists continue to focus on deficits as mandated by federal and state regulations to assess areas of disability and deficits, with no comparable requirement to assess student strengths (Rhee et al., 2001). Focusing on deficits may allow school psychologists to diagnose disabilities, but such practice does not inform intervention and treatment approaches. In contrast, it is argued that identifying areas of strength to capitalize upon, such as fostering motivation or nurturing confidence, may promote addressing underlying problems as opposed to simply altering observable behaviors (Terjesen et al., 2004). Further, when using strength-based assessments, school psychologists recognize the importance of ecological and contextual variables, which may lead to a deeper, and arguably, a more appropriate understanding of youths and their resources. Unique information may be gleaned from a closer inspection of a youth's strengths that, in turn, facilitates comprehensive intervention planning (Rhee et al., 2001).

Strength-based assessment can promote a positive arena for school psychologists, teachers, and families to monitor student performance and communicate with success. The endorsement of strengths can empower children and families to take responsibility and navigate their own life experiences (Rhee et al., 2001). In addition, school personnel benefit personally from implementing such an approach through increased optimism, hope, and motivation for change that comes from examining strengths and competencies rather than feeling overwhelmed and hopeless by a focus on multiple problems (Clark, 1999; Constantine, Benard, & Diaz, 1999).

A strength-based approach to assessment enhances the practice of school-based consultation, collaboration, and intervention. As reflected in state standards, school psychologists have a responsibility to provide developmental support and opportunities to boost functioning in students (Rhee et al., 2001). As Rhee and colleagues point out, The National Association of School Psychologists (NASP) Training Standard 2.7—Prevention, Crisis Intervention, and Mental Health states that "school psychologists provide or contribute to prevention and intervention programs that promote mental health and physical well-being of students." Additionally, California Commission on Teacher Credentialing—Pupil Personnel-School Psychology Specialization Standard 21—Wellness Promotion, Crisis Intervention, and Counseling, maintains that "candidates are prepared to help design, implement and evaluate wellness, prevention, intervention, and other mental health programs" (Rhee et al., 2001).

One particularly appealing application of the strength-based approach is in the identification of keystone variables, which when targeted for intervention are likely to have a broad impact on the positive functioning of a student after consideration of their particular constellation of behavior (Barnett, Bauer, Ehrhardt, Lentz, & Stollar, 1996). Specifically, Barnett and colleagues define keystone variables as pivotal in deflecting a constellation of behavior toward the positive, resulting in associated benefits from personal, peer, and adult viewpoints, and providing foundational skills for future development. Though relatively simple to identify and teach, keystone variables have a profound impact on

changing the trajectory of ongoing problems while preventing the development of future difficulties. Examples of keystone variables include foundational skills (e.g., study skills and social skills) and environmental conditions (e.g., parental communication and adult mentoring).

### **What are Examples of Strength-Based Assessments?**

As psychologists have begun to examine aspects of positive psychology more critically, various instruments have been developed for research and clinical practice. Epstein and Sharma (1998) define strength-based assessment as:

...the measurement of those emotional and behavioral skills, competencies, and characteristics that create a sense of personal accomplishment; contribute to satisfying relationships with family members, peers, and adults; enhance one's ability to deal with adversity and stress; and promote one's personal, social, and academic development. (p. 3)

A variety of instruments are available to objectively assess variables related to strengths and resiliency among youth. Brief overviews of selected strength-oriented assessments are provided in the following table as an introduction to a sampling of such measures.

### **What are Limitations and Needs Related to Strength-Based Assessment?**

Strength-based assessment and intervention practices are based on strength building, rather than deficiency focused and, when included in a multidimensional assessment, allow for a more "balanced" approach to viewing youth development. Moreover, employing this approach to assessment enhances the practice of school-based consultation, collaboration, and intervention. Despite the intuitive benefits of seeking enriched information about the strengths of children, it is acknowledged that there is little empirical data examining available strength oriented measures (e.g., BERS and CHKS) in promoting positive youth development. Only recently have studies begun to more rigorously examine these "strength-based" instruments' ability to reliably assess positive indicators and predict positive youth outcomes (Scales et al., 2000). Furthermore, as school psychologists expand their use of strength-based assessment resources, it is essential that they base practice on more than ideological preferences; thus, further research is necessary to clarify and delineate the value of assessing strengths and the models, paradigms, or theories that drive their use.

Though longitudinal studies have examined the relative influences of measured risk and protective factors on targeted developmental outcomes, there is limited research examining the relative merits and limitations of a strength-based approach to assessment in the school context. Further research investigating the value-added of considering strengths, in addition to risk factors is essential. Likewise, often the focus of related research has examined the value of predicting problems; however, a strength-based approach suggests that it is desirable to examine positive outcomes as well. While positive psychology has appealed to many scholars and professionals, there is limited empirical investigation that delineates the merits of this perspective in working with children or families. Further research explicating how strengths can be used to facilitate positive youth development is important. That is, to enhance school psychology assessment practices, evidence is needed that a strength-based assessment that considers a balance of student needs and skills, provides more comprehensive and meaningful information than traditional deficit-focused models. Ultimately, strength-based assessments must be more than a set of loosely arranged principles or assessment practices, and organized by models that lead to better understanding of all students.

As school psychologists expand their application of strength-based perspectives, it is important that they maintain an open mind about what these approaches encompass. The work of Daleiden,



**Table 1.**  
***A Sample of Strength-Based Measures***

Measure	Strength-Based Subscales	Reliability	Concurrent Validity
Behavioral Assessment Scale (BASC) (Reynolds & Kamphaus, 1992)	<p>Respondent: Parent, Teacher, Self</p> <p>Parent and Teacher forms: Adaptive scale, included items that measure Adaptability, Leadership, Social Skills, and Study Skills</p> <p>Self-report form: Adaptive scale includes items that measure Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance</p>	<p>Internal consistency alpha coefficients ranged from .80 to .90</p>	<p>Correlations between the BASC Teacher form and the TRF competence subscales ranged from .52 to .82</p> <p>Correlations between the BASC Parent form and the Child Behavior Checklist (CBCL) competence subscales ranged from .40 to .68</p> <p>Correlations between the BASC Self form and the Youth Self Report competence subscales ranged from .15 to .39</p>
Behavioral and Emotional Rating Scale (BERS) (Epstein & Sharma, 1998)	<p>Respondent: Primary Caregiver, Self (BERS-2)</p> <p>All forms: Interpersonal Strengths, Affective Strength, Family Involvement, School Functioning, Intrapersonal Strengths</p>	<p>Internal consistency alpha coefficients = .98</p> <p>Test-retest = .99</p> <p>Interrater reliability ranged from .83 to .98</p>	<p>Correlations between BERS subscales and the Teacher Report Form (TRF) competence subscales ranged from .29 to .73</p> <p>Correlations between BERS and the SSRS Social Skills correlations ranged from .46 to .73 and Academic Competence ranged from .50 to .72</p>
California Healthy Kids Survey-Resilience Youth Development Module (RYDM) (Constantine et al., 1999)	<p>Respondent: Self</p> <p>Externally-situated strengths (e.g., the presence of caring relationships, high expectations, and opportunities to participate in meaningful activities) and</p> <p>Internally-situated strengths (e.g., social competence, autonomy, sense of meaning, and purpose)</p>	<p>Internal consistency alpha coefficients ranged from .55 to .88</p> <p>The exception to this was the Meaningful Participation in the Community subscale, which had "low reliability and new items were [subsequently] written to be assessed in the next phase of the field test" (Constantine et al., 1999, p. 7).</p>	<p>Correlations between RYDM and the Multidimensional Life Satisfaction Scale ranged from .43 to .66</p> <p>Correlations between RYDM and the Extended Life Orientation Test were .56</p>



**Table 1 continued.**  
***A Sample of Strength-Based Measures***

Developmental Assets Profile (DAP) (Search Institute, 2004)	Respondent: Self  Asset Categories: Support, Empowerment, Boundaries and Expectations, Constructive Use of Time, Commitment To Learning, Positive Values, Social Competencies, and Positive Identity  Based on the Search Institute's 40 Developmental Assets Model	Internal consistency alpha coefficients for the DAP scales averaged .81 for the eight asset category scales.  Internal consistency was .93 for Internal assets, .95 for External assets, and .97 for Total assets.  Two-week test-retest were .86, .84, & .87, respectively.	Correlation between DAP and the Search Institute 40 Developmental Assets (A&B survey) is .82 with Total Assets.  The correlation with risk behaviors and Total Assets = -.45, and with the thriving score and Total Assets of .65.  Coefficients for Internal and External Assets with the A&B survey were .80 & .76, respectively.
Multidimensional Student Life Satisfaction Survey (Huebner, 2001)	Respondent: Self  Satisfaction in multiple domains; Family, Friends, School, Living Environment, and Self	Internal consistency coefficients between .72 & .85.  Two- and four-week test-retest ranged from .70 to .90.	Family domain correlated .61 with BASC Parent scale, Friends domain correlated .56 with Loneliness and Social Dissatisfaction Scale, School domain correlated .68 with Quality of School Life Scale, and Self domain correlated .62 with General Self-Esteem scale of the Self-Description Questionnaire-I.
School Social Behavior Scale-2 (SSBS-2) (Merrell, 2002)	Respondent: Teacher  Social Competence included items that measure Peer Relations, Self-Management/Compliance, and Academic Behavior	Internal consistency alpha and split-half reliability coefficients ranged from .96 to .98	Moderate correlations between SSBS and CBCL, TRF.
Social Skills Rating System (SSRS) (Gresham & Elliott, 1988)	Respondent: Parent, Teacher, Self  All forms: Social Skill Scale includes items that measure Cooperation, Assertion, Responsibility, Empathy, and Self-Control  Teacher form: Academic Competence Scale measure reading and mathematics performance, general cognitive functioning, as well as motivation and parental support	Internal consistency alpha coefficients ranged from .75 to .94	Moderate to high correlations between SSRS and Social Behavior Assessment, Child Behavior Checklist (Teacher, Parent, and Student Self-Report forms), Harter Teacher Rating Scale, Piers-Harris, Walker-McConnell.

Vasey, and Williams (1996), for example, suggests that counting “good” things or “positive” psychological experiences is insufficient to understand the emotional status of a youth. For example, some research (e.g., Eisenberg et al., 1996) has found that excessively high levels of positive emotions are associated with developmental problems. An intriguing possibility for strength-based assessment is that it may also include examination of the regulation of both negative and positive emotions. As such, it will encourage school psychologists to de-emphasize assessments that search for symptoms and focus more on how youths manage their social and emotional worlds. An example of a recently developed instrument that takes such an integrated strength approach is the *How I Feel* scale (Walden, Harris, & Catron, 2003), which examines positive and negative emotional experiences as well as emotional control.

There is a need to propose and understand how strengths influence behavior and development. Some investigations provide intriguing ideas about how this can be done. Research related to the States of Mind model provides an example of a current theory that holds promise to show how strength-based approaches can be integrated with more traditional symptoms-based assessment models. States of Mind research has examined how the balance of individual’s inner thoughts (e.g., ideas and affective experiences) is related to mental well being. What has been found is that psychological well being is not defined by the mere absence of negative cognitions or emotional experiences, but by maintaining a proper balance between them. When the ratio of positive to negative thoughts (P/P+N) persistently falls outside of the .56 to .68 range (researchers refer to .62 as a “set point”), then an individual is at increased risk of experiencing some mental disorder. Too many negative thoughts are associated with various forms of psychopathology, whereas too many positive thoughts are associated with excessive optimism and mania. Daleiden et al. (1996) extended this research to include children and adolescents and found that this model was applicable to them also. This research emphasizes the presence of an internal psychological modulating process, not a static counting of negative or positive conditions.

In addition to offering a way to focus on youths’ emotional management, strength-based assessment also focuses attention on positive outcomes for youth. This is another area in which strength-based approaches can make a potentially useful contribution, by better identifying key measures for positive development. Within the field of education, this should be a familiar objective because schools are devoted to developing positive academic achievement. Similarly, students need to develop personal and social-emotional competence. Current efforts by the Search Institute surveys and the *CHKS Resilience Youth Development Module*, based in positive youth development and strength-based rationales, serve the valuable purpose of refocusing attention to desired developmental outcomes. Within school psychology, Huebner’s *Multidimensional Student Life Satisfaction Survey* (e.g., McCullough & Huebner, 2003) provides a way to examine general well being within the contexts of family, friends, school, living environment, and self.

### **Conclusion: From Discussion to Practice**

As school psychologists expand their awareness of strength-based assessment tools and practices, there are a number of entry points they will want to consider. Strength-based assessment can begin at the level of taking steps to increase awareness of personal strengths as a motivation to reorient assessment and the IEP process away from a search for deficits and negative symptoms. This may include adding a section to psychological reports under headings such as “Student Personal and Social Resources” or by beginning IEP meetings by asking teachers and parents to comment about what the student does well or how they are likable. It would then be reasonable to begin the process of incorpo-

rating at least one existing strength-based assessment instrument regularly into social-emotional competence assessment plans. Even if the referral questions focus on behavioral difficulties or depression, it may be helpful to also assess what is going well for the student or to compile examples of times when the student had positive experiences or managed their emotions well. Beyond focusing on individual students, strength-based assessment also considers how a student's social contexts act as supportive resources. From this perspective, school psychologists can also work with their school sites to consider using the *CHKS Resilience Youth Development Module*, the *Developmental Assets Profile* and related assessments to conduct environmental scans to better understand the strength profiles of students and the positive youth development capacity of the school. The CHKS is mandated for use in all California schools every two years (grades 7, 9, and 11). Becoming involved with the collection of these surveys and working with school committees to examine what the students have to say about sources of social support at school complements school psychologists' efforts to consider individual student strengths. Finally, as progress in the development and application of strength-based assessment continues, school psychologists will benefit by seeking out professional development to expand understanding of positive psychology and strength-based assessment and to consider how these perspectives can be incorporated into assessment, consultation, and counseling services.

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## **The Behavioral and Emotional Rating Scale–2 (BERS-2): Providing a Comprehensive Approach to Strength-Based Assessment**

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Identification of strengths is considered an important part of school psychological practice. However, few instruments are available to school psychologists that allow for systematic and comprehensive evaluation of a student's emotional and behavioral strengths. School psychologists must be provided with psychometrically sound instruments that will measure students' emotional and behavioral skills and competencies. The Behavioral and Emotional Ratings Scale (BERS) was developed in response to the need for a valid and reliable instrument for assessing and evaluating strengths, but it became evident that the single instrument was not comprehensive. The BERS has now been restandardized to create two additional scales: a parent rating scale and a youth self-report scale. The Behavioral and Emotional Rating Scale–2<sup>nd</sup> Edition (BERS-2) scales now provide school psychologists with a comprehensive set of standardized instruments to assess children's emotional and behavioral strengths. The purpose of this article is threefold: (a) to provide a brief overview of strength-based assessment in school psychological practice, (b) to discuss the development of the BERS-2, and (c) to discuss the use of the BERS-2 in school psychological practice.

**Key Words:** Strengths, BERS, Assessment, Students

Assessing the emotional and behavioral needs of students is a challenging task for school psychologists. The multidimensional nature of behavior (e.g., contextual influences, varying perspective of informants) as well as the type of assessment used influence the perception of a student's behavior (Freidman, Leone, & Freidman, 1999). For school psychologists, behavioral rating scales are one of the most widely used methods of assessing emotional and behavioral needs of students (Wilson & Reschly, 1996). School psychologists routinely collect rating scale information from several informants to capture multiple perspectives of behavior across settings. Although information is also typically collected through direct observation of behavior and interviews, behavioral ratings have an influential impact on assessment results. Therefore, the way in which a student's behavior is characterized is largely influenced by the rating scales used.

Currently many behavior rating scales are primarily deficit-based, meaning the psychologist is limited to collecting information about deficits, problems, or pathologies. The Child Behavior Checklist (CBCL; Achenbach, 1991) for example, a widely used scale in research and practice, allows for the reporting of problematic behavior with scant regard to what the child can do well. Other measures have included questions or subscales designed to capture a child's positive behaviors (e.g., the Adaptive scales from the Behavior Assessment System for Children; Reynolds & Kamphaus, 1992) but the strengths measured are limited in number and scope. Although the documentation of deficits is essential for special education eligibility requirements, current mental health and education initiatives have encouraged the documentation of strengths and resources in children's mental health assessment, treatment and service delivery (Epstein, 1999; Van Den Berg & Grealish, 1996). Strength-based assessment advocates argue for incorporating strength measures into assessments of social and emotional

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disorders in children because child strengths are seen as an important component of clinical decision making (Oswald, Cohen, Best, Jenson, & Lyons, 2001). A strength-based assessment paradigm recognizes that children with even the most challenging behaviors have strengths that can be built on to develop a treatment or intervention approach (Epstein, 1999; Provence, Erikson, Vater, & Palmeri, 1995). This is not to suggest that the assessment of deficits be eliminated, but rather that assessment of deficits and strengths can provide a more comprehensive, balanced, and holistic view of a child. For example, the documentation of a student's strengths and weaknesses is routine practice for school psychologists conducting psychoeducational evaluations and for students' Individualized Education Programs (IEP).

Although documenting what a child can do well is not new to school psychological practice, standardized resources available to professionals to formally document strengths has been limited. The development of strength-based assessment tools is still in its infancy, but the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998) has emerged as a widely used standardized instrument designed solely to assess children's emotional and behavioral strengths. The BERS was developed in response to the paradigm shift away from a deficit-only focus to the enhancement of students' strengths. More practically, it was developed in response to the need for an instrument dedicated to the assessment of students' strengths and competencies. Items on the BERS were created from existing research literature about behavioral and emotional skills and included input from parents and professionals (e.g., teachers, mental health workers) to develop items that were representative of the skills reported in the literature (Epstein & Sharma, 1998). The 52-item BERS was designed to be completed by adults (e.g., teachers, caregivers) who rate the behaviors of children ages 5-18. Reliability (Epstein, Cullinan, Harniss, & Ryser, 1999) and validity (Epstein, 1999; Epstein, Cullinan, Ryser, & Pearson, 2002) studies have demonstrated that the BERS possesses sound psychometric properties.

The research on the psychometric properties of the BERS indicated that it has adequate reliability and validity as a behavioral strength measure. However, it became apparent that the instrument was not comprehensive in two important ways: (a) the original BERS did not differentiate between parent and teacher respondents, so there was a need to establish separate norms for parent and teacher respondent groups, and (b) the BERS did not allow for a child/adolescent to report on his/her own perceived strengths and competencies. Below is an overview of the revised BERS scales and a discussion of how school psychologists can use the scales to provide a comprehensive behavioral assessment.

### **BERS-2: Parent, Teacher, and Youth Rating Scales**

To address the problems with the original BERS, the scale was renormed in 2001-2002 and included a large, nationally representative sample of parents/caregivers and children and adolescents. The original BERS items were rewritten to reflect a parent and youth perspective respectively and the new versions of the scale were named the BERS-2: Parent Rating Scale (Epstein, 2004) and the BERS-2: Youth Rating Scale (Epstein, 2004). The original BERS scale was restandardized for use by teachers and renamed the BERS 2: Teacher Rating Scale (Epstein, 2004). An overview of the scales, including the norms and factor structure follows.

*Norms.* Ratings were collected on a nationally representative sample of 927 persons for the BERS-2 Parent Rating Scale and 1,301 youth for the Youth Rating Scale. Parents of students with disabilities comprised 17% of the Parent Rating Scale sample and 16% of the Youth Ratings Scale sample were students with disabilities. All students with disabilities were school-system identified and receiving special education services. Data with regard to geographic region, gender, race, ethnicity, family income, rural or urban residence, and disability status were collected on the two samples. The percentages for these characteristics were then compared to those reported in the Statistical Abstract of the



United States (U.S. Bureau of the Census, 2001). The comparison demonstrated that the national samples were representative of children nationwide (Epstein, 2004).

*Instruments.* The BERS-2 scales were modeled after the original BERS scales, and therefore the same 52 items included in the BERS were included in the scales for both parents and teachers. The Parent Rating Scale and the Teacher Rating Scale are designed to be completed in approximately 10 minutes by parents and teachers, respectively, who read each statement and mark the rating that reflects how much a given characteristic is representative of the child. The items are rated on a 4-point Likert scale that ranges from 0 (not at all like the child) to 3 (very much like the child). The scales are composed of an overall Strength Index that provides a single summary score of strengths and five subscales: Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength. The five subscales have a mean standard score of 10 and a standard deviation of 3. The sum of the subscale standard scores is converted into the Strength Index that has a mean of 100 and standard deviation of 15. All scales are written at a fifth-grade reading level.

The scale also contains eight open-ended questions that allow parents and teachers to note a child's specific academic, social, athletic, family, and community strengths. New to the Parent Rating Scale is the inclusion of a brief five-question subscale (Career Strengths) that measures the career and vocational strengths of the rated child.

The BERS-2 Youth Rating Scale, intended for youth ages 11-18, is identical to the parent and teacher scales except the youth self-report included minor wording changes to reflect a student perspective. For example, "asks for help" was changed to "I ask for help when I need it." The 5-item career subscale was also included in the youth version. Most youth can complete the 57 items in approximately 10 minutes.

*Factor structure.* The overall strength index consists of five factors: Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength. The Interpersonal Strength subscale consists of 15 items that identify a child's ability to interact with others in social situations (e.g., accepts criticism, accepts responsibility for own actions). The Family Involvement subscale contains 10 items that measure a child's relationship with his or her family (e.g., trusts a significant person in his or her life, participates in family activities). The Intrapersonal Strength subscale is composed of 11 items that focus on how a child perceives his or her competence and accomplishment (e.g., identifies personal strengths, talks about the positive aspects of life). The School Functioning scale consists of 9 items that address a child's competence and performance in classroom and school tasks (e.g., completes school tasks on time, attends school regularly). Finally, the Affective Strength subscale is made up of 7 items that measure a child's ability to give and receive affection from others (e.g., shows concern for the feelings of others, expresses affection for others).

Confirmatory factor analysis research (Buckley, Ryser, Reid, & Epstein, 2004) indicated that the same factor structure that existed for the original BERS exists with the Parent Rating Scale and Youth Rating Scale. Four indexes of model fit were computed in testing this model with the BERS-2 Parent and Youth Rating Scales: Bentler's (1990) comparative fit index (CFI), Tucker and Lewis's (1973) index of fit (TLI), and Bentler and Bonnett's (1980) normed fit index (NFI) and Browne and Cudek's (1993) root mean square error of approximation (RMSEA). The CFI, TLI, and NFI values should be at or above .95 to indicate a good fitting model (Hu & Bentler, 1999), and a RMSEA of less than .11 indicates a reasonable fit, and about .05 or less indicates a close fit of the model (Browne & Cudek, 1993). The results indicate that three of the four indices supported the fit of the model to the data, with the CFI equal to .993 and .995, the TLI equal to .986 and .979, the NFI equal to .995 and .993, and the RMSEA equal to .148 and .120 for the Parent and Youth Rating Scales, respectively. CFA research that tests for second order factors to confirm the utility of the strength index is needed. In addition, al-

though three of the fit estimates suggested that the five-factor model was a good fit for the data, the RMSEA did not reflect this. Additional studies are necessary to replicate and further understand these findings. Further support for the factor structure includes a similar confirmatory factor analysis conducted on the original BERS completed by over 1,400 parents of children with emotional disturbance which reported the identical factor structure (Liao, Holden, & Epstein, 2002).

**Reliability.** Adequate reliability has been established for the BERS-2. For example, the subscales have strong internal consistency with average coefficients ranging from .84 to .92 for the Teacher Rating Scale, .84 to .93 for the Parent Rating Scale, and .79 to .88 for the Youth Rating Scale. The strength quotient also has strong internal consistency with coefficients ranging from .95 to .97 (Epstein, 2004). Stability of the BERS-2 ratings has also been established; across the scales, short-term test-retest (i.e., 6 weeks) coefficients ranged from .84 to .98, and long-term test-retest (i.e., 6 months) coefficients ranged from .53 to .79. The addition of a youth self-report prompted studies of cross-informant reliability. A study of the agreement between the parent and youth version of the scale resulted in coefficients for the subscales and the overall strength quotient ranging from .50 to .63, indicating highly acceptable levels of cross informant agreement (Synhorst, Buckley, Reid, Epstein, & Ryser, 2004). Research into the agreement between other raters (e.g., teacher and parent) is also warranted but those studies are not yet reported. Please refer to the BERS-2 manual for additional information concerning the reliability of the instruments.

**Validity.** The BERS-2 manual provides information indicating that adequate validity has been established for the BERS-2. First, the manual provides a description of the selection of subscale content and format to show that the construct measured by the BERS-2 is consistent with current knowledge about student strengths, competencies, and resiliency. Combined with factor analysis results, this indicates that the BERS-2 has established content-description validity (Epstein, 2004). The ability of the BERS-2 to discriminate students with and without emotional disturbance (EBD) was examined. As expected, the range of average performances across all three rating scales for an EBD subgroup was significantly lower, almost one standard deviation lower across the subscales and strength index (Epstein, 2004). A previous BERS study (Reid, Epstein, Pastor, & Ryser, 2000) also indicated that the instrument could discriminate among students with behavior disorders, learning disabilities and without disabilities.

In addition, previous studies examined criterion validity and determined that the instrument correlated positively with other scales or subscales measuring strengths or positive behaviors such as the adaptive scale from the *Systematic Screening for Behavior Disorders* (SSBD; Walker & Severson, 1992; Harniss, Epstein, Ryser, & Pearson, 1999). The instrument also correlated negatively with scales measuring deficits or problems scales such as the *Scale Assessing Emotional Disturbance* (SAED; Epstein & Cullinan, 1998; Epstein, Nordness, Nelson, & Hertzog, 2002).

Additional validity information for the BERS-2 can be obtained from the manual. Further study is warranted on the relationship of the BERS-2 to other criterion measures (e.g., sociometrics, academic progress). Overall, professionals are also encouraged to study the test using different samples and measures, and share their findings with the test author. The additional research data will help further clarify the validity of the BERS-2 and provide guidance for future revisions of the test.

### Implications for School Psychologists

The creation of the BERS-2 rating scales is an important advancement in strength-based assessment and intervention. The scales are quick and easy to administer, possess a logical factor structure, have nationally representative norms, and possess adequate reliability and validity. The BERS-2 rating scales allow school psychologists to collect strength-based information from multiple perspectives,



including teacher, parent, and youth. There are three main implications for the use of the BERS-2 for school psychologists: (a) establishing rapport and positive communication with students, families, and school staff; (b) informing IEP and treatment planning; and (c) monitoring interventions and evaluating outcomes.

*Rapport and communication.* When school psychologists include an evaluation of a child's behavioral and emotional strengths as part of a comprehensive behavioral assessment, they are emphasizing an ecological orientation to children and behavior. The assessment results will therefore draw professionals' and parents' attention to the enhancement of student functioning, not just the reduction or elimination of deficits. More positive parent-child-professional relationships can be developed when the focus of the communication is on what the child does well, or how to increase the child's strengths. Indeed, family members have reported interactions with school personnel to be very positive when the focus is on what their child does well, not just what the problems are (Epstein & Sharma, 1998). The role of the school psychologist in this process will therefore be viewed as one of fostering positive youth development and mental health well-being, not solely the reporter of the problems, pathologies, and deficits of the child. Parent satisfaction with intervention outcomes will also more likely increase if there is documentation of improvement in their child's competencies, such as their ability to better manage their emotions and get along with their siblings.

When school psychologists include an emphasis on strengths as part of an evaluation, it also facilitates other school personnel's adaptation of an ecological orientation to children and behavior. School psychologists can model for other professionals, including teachers, the need to identify strengths and how to use those strengths in working with students and families. It is not just school psychologists who can use strength-based assessment results. For example, school-based social workers could use family strength-based results to understand the strategies families currently use and help families to improve their ability to solve current problems and prevent or minimize future problems, and also help coordinate home- and school-based interventions for the child (Powell, Batsche, Ferro, Fox, & Dunlap, 1997). Positive relationships with colleagues are more easily established when all professionals understand the importance of developing students' positive behaviors, and share the common goal of improving the strengths, competencies, and overall well-being of students.

*Planning.* School psychologists can also effectively use knowledge of strengths for planning purposes, both intervention planning and IEP planning if the student receives special education services. The BERS-2 allows school psychologists to collect specific information about what students do well, their likes and dislikes, and identifies people with whom the student has a close relationship. This type of knowledge has the potential to enhance the feasibility and success of an intervention. The BERS-2 allows for collection of this information in a quick and easy format. With the addition of the youth self-rating scale, the BERS-2 allows for an understanding of the child's perspective on his or her own strengths, not solely the adult perspective. This will further increase a school psychologist's ability to effectively use information about strengths to inform intervention development.

Combined with other information collected (e.g., interviews) during an evaluation, the BERS-2 helps to identify behavioral and emotional strengths the student already possesses, as well as those behaviors that need to be strengthened. Interventions can be targeted to use established strengths to develop or enhance less well-developed skills. For example, if a student does not possess strong interpersonal skills, a recommendation in that area may be that the student set concrete goals and determines the actions needed to achieve those goals to increase his or her awareness of the relationship between behavior and consequences. Also, if it is learned that the child has a very close relationship with his father, the father could be a key player in school-home interventions. For IEPs, the goals and objectives should include the building of strengths, not just the elimination of deficits. Again, the

attention to the positive and what the student does well will focus the IEP team on the strengths of the student and how to improve student competencies. Goals identified should match the needs and strengths of the child and family.

*Monitoring and outcomes.* Because strength-based assessment focuses attention on strengths and competencies, progress monitoring and assessment of outcomes should focus on improvements in these areas as well as improvement in problem behavior areas. When the goal of interventions is to enhance a student's functioning and competencies, the BERS-2 scale can be used to document changes in those strengths and competencies. Administering the BERS-2 at pre-treatment and at regular intervals (e.g., every 6 months) would be helpful in detailing the strengths of children as they progress through specialized programs. The importance of intervention accountability cannot be overstated, and the BERS-2 can be used in combination with other measures (e.g., goal attainment scaling, other norm-referenced measures) to demonstrate the effectiveness of interventions. Documentation helps not only with intervention accountability, but can also assist with further intervention modification or planning. Administrators and policy makers would likely be interested in programs that can document improvement in students' emotional and behavioral strengths and competencies.

For an example of the use of the original BERS scales in educational practices, readers are encouraged to read an article by Epstein, Randolph, and Epstein (2000) that depicts a case study illustrating the use of the original BERS in transition planning. Additional papers illustrating the use of the BERS-2 scales in practices would provide a worthwhile contribution to the literature on the use of strength-based assessment.

## CONCLUSION

This article provided an overview of the Behavioral and Emotional Rating Scale-2<sup>nd</sup> Edition (BERS-2), and discussed the use of the BERS-2 in school psychological practice. As the mental health and education fields embrace a strength-based paradigm, school psychologists can become leaders in the field by advocating for comprehensive behavioral assessments that include multiple perspectives of a child's strengths. Although the development of strength-based tools is still in its infancy, the creation of the BERS-2 Rating Scales represent an important advancement in the development of strength-based instruments. The BERS-2 rating scales are tools that can assist in identifying strengths and competencies to aid in understanding and building upon existing behavioral strengths to influence the positive development of students. Additional research is still needed into the psychometric properties of the BERS-2 as well as the use of the scales in school psychological practice. However, the existence of strength-based scales helps school psychologists to become more focused on what children do well and promote positive behavioral and emotional youth development.

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## Asset-Based Assessment In Educational Psychology: Capturing Perceptions During a Paradigm Shift

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Several trends are compelling educational psychologists towards a philosophy of assessment that is asset-based and strength focused. This article shares the results from a study that explored perceptions about asset-based assessment in Educational Psychology in South Africa. Three focus groups were held and four main themes emerged from the transcribed data. Results indicate that educational psychologists perceive asset-based assessment as involving: (a) a focus on assets, (b) individual and community level assessment, (c) collaboration skills, and (d) self-reflective skills. The first three themes are congruent with asset-based theories, but the fourth theme is currently under-represented in asset-based literature and therefore in need of further research.

Key Words: Assets, Educational Psychology, Assessment, Strengths, Skills

The dominance of the deficit model and paradigm in Educational Psychology<sup>1</sup>, with its focus on needs and problems, has recently led to the development of counter models in different pockets of the science and practice of Educational Psychology (Ammerman & Parks, 1998; Eloff & Ebersöhn, 2002; Hernandez, 1998; Kretzmann & McKnight, 1993; Lockett, 2000; McDonald, 1997; Mokwena, 1997; Page-Adams & Sherraden, 1997; Rudolph & Epstein, 2000; Sharpe & Greany, 2000; Sharratt, 1995). Themes such as *resilience* (Hiew, 2002; LaFramboise, 2002; Ow, 2002; Satiadarma, 2002; Takahashi, 2002), *asset-based* approaches (Eloff & Ebersöhn, 2001; Kretzmann & McKnight, 1993) and a focus on the *fortogenic* perspective in psychology are evident (Wissing & Van Eeden, 2002). Research on resiliency has shifted attention to children that succeed and thrive under extenuating circumstances, along with other constructs conceptualizing aspects of psychological health, strengths and wellness and their origins (fortogenesis). This move away from the deficit paradigm, toward a paradigm that focuses on the counter constructs, strengths, resources and capacities of people, points toward an asset-based approach. In terms of assessment, this transition implies a culture of dynamic assessment that includes the broader social systems in the assessment process, which creates coherence, stresses collaboration and values partnerships.

The research and practice of asset-based assessment is now emerging in the field of Educational Psychology. Questions that remain unanswered are vast: How do we conduct asset-based assessment? Who could and should be doing asset-based assessment? What are the consequences of asset-based assessment? How does asset-based assessment fit within broader educational, psychological and sociological domains? These questions highlight how much is yet to be understood about asset-based assessment and this realization can be overwhelming, because traditionally, educational psychologists do not work in an asset-based manner. However, this realization can also be inspiring as it provides a new emphasis on assessment and can facilitate a more holistic conceptualization of an individual or family (Rhee, Furlong, Turner, & Harari, 2001).

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<sup>1</sup>Educational Psychology: It is the science that concerns itself with theories and practices in psychology and education and the intersections between psychology and education. Educational psychologists assess, diagnose and intervene in order to facilitate the psychological adjustment and development of children and adolescents within the contexts of family, school, social or peer groups and communities.

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In largely uncharted territory such as the field of asset-based assessment (specifically in Educational Psychology), these emerging questions leave the options of exploring the terrain from any number of vantage points. Therefore, a study was undertaken to explore the perceptions of professionals about asset-based assessment. This led to the research question: *What are perceptions of asset-based assessment in Educational Psychology?* The rationale is that the perceptions of professionals can have a significant impact on the ways in which asset-based assessment is taught, practiced, and implemented. It may also provide valuable insights into asset-based assessment itself.

The purpose of this article is to share the results from a study that explored the perceptions of professionals about asset-based assessment and to compare results with asset-based theory in order to enhance an understanding of asset-based assessment. Through an analysis of practitioners and scholars' "voices," insight and understanding can be gained to advance knowledge of how the asset-based approach can be utilized in assessment.

### Contextualization of the study

This study was conducted within the South African context. Since 1994, the country has undergone crucial changes on different domains including, the development of a new constitution, anthem, flag, set of labor laws, and curriculum for the education system. This transformation inevitably impacted the role of Educational Psychology, especially in developing new methods of service delivery. Over the past few years it has become clear that the traditional role of the educational psychologist to render an individually-based service, whether in private practice consulting with schools, or based at a school or similar agency, seemed not to have an effective and sustainable impact (Ammerman & Parks, 1998; Mokwena, 1997). In order to address the vast socioeconomic and socio-psychological disparities and inequalities in the needs of the people, educational psychologists have had to focus more on communities, on establishing networks and partnerships, and to collaborate with the relevant stakeholders.

### Theoretical Framework

In this study, we utilize the theoretical framework provided by Kretzmann and McKnight (1993) on the asset-based approach. This approach is based on the perspective of working from what is present in a given family or community, focusing on the assets of individuals, non-governmental organizations (NGOs), associations and institutions. These assets refer on an individual level to the talents, gifts and skills that a person has to offer and on a broader level to the resources, talents and skills within a community. This approach by no means negates problems or needs, but rather strengthens the resources within a system to establish sustainable intervention. Articulating this community-based approach for school-based practices, it becomes evident that the psychologist can facilitate the identification and mobilization of each individual person's or family's assets. Assessing in an asset-based manner implies more than the traditional focus on the strengths and weaknesses of a child, or assessing in an ecosystemic framework, as it reflects the fundamental nature of thinking in terms of capacities, instead of deficits (Ebersöhn & Eloff, 2003).

## METHOD

### Participants

Educational psychologists, Educational Psychology master's degree students and a stakeholder from the disability sector who is a registered educational psychologist were purposefully selected. The



selection criteria for the participants were based on: (a) involvement in the field of Educational Psychology and (b) knowledge and background regarding the asset-based approach. The minimum participants that were present at a given time were 9 and the maximum 11. Morse (1994) stated that the optimum number of participants for a focus group is between 5 to 12 members. Larger groups become more difficult to moderate and may frustrate the participants themselves as they have less time to adequately express their views. All of the participants were female and of the same ethnicity (Caucasian). The participants in this study were invited to participate in the study via telephone calls and e-mail correspondence.

### Measures

The focus group interviews were tape- and video-recorded and then transcribed by a research assistant. The researchers then verified the transcriptions by comparing the transcribed data with the video- and audio-recordings of the data.

### Procedures

Focus groups as well as field notes were used to collect data. Field notes were made by two researchers during the focus groups and collated with the data from the transcriptions. Three focus groups were held over a period of three consecutive weeks. Each focus group lasted approximately one hour. The rationale for using focus groups is that it serves as a primary mean of collecting qualitative data to explore new research areas from the participants' own perspectives. It generates a discussion of similarities and differences among the participants so that contrary opinions can be explored and new areas of inquiry be generated (Morgan, 1997; Morse, 1994). Experiences and perspectives can be shared that would not have been accessible without the group's interaction.

The focus groups were held in a secure, quiet room with audio- and video-recording facilities. Every participant was seated on a low, comfortable chair and empty chairs were removed before the session commenced. Chairs were arranged in a circle with empty space in the middle. A facilitator was appointed for the focus groups. The role of the facilitator entailed a word of welcome to the participants, explanation of the study and facilitation during the focus group. The facilitation involved asking the focus group question, summarizing the comments and contributions at some points in the focus group, monitoring the time and closing the focus group session. Responses from participants were spontaneous and random. The question that was posed to the group was "What is asset-based assessment in Educational Psychology?"

### Analyses

The transcribed data from the focus groups were analyzed by incorporating two techniques. "Thematic qualitative analysis" as described by Hayes (2000) and "Themes and coding qualitative data" as described by Strauss (in Neuman, 2000) were integrated for the purposes of data analysis in order to generate the themes that are identified in this study.

Thematic analysis is qualitative analysis that involves sorting information into themes; that is, recurring ideas or topics in a particular set of data (Hayes, 2000). Coding of data involves raw data that are organized into conceptual categories and themes (Neuman, 2000). Advantages of these techniques are that a large mass of data becomes manageable and relevant parts can be quickly retrieved. It frees the researcher from becoming entangled in the details of raw data and higher level thinking about the data is thus encouraged. The limitations of this method are that it can be a long and tedious process and that the researcher can become biased and selective (Hayes, 2000; Neuman, 2000).

The first step entailed preparing the data for analysis, by transcribing the focus group discussions. Then each line of the focus group data was systematically read through to identify constructs or items of information that link or belong with each other. Initial labels were assigned to these emerging themes or proto-themes. A preliminary concept or label was written, examined, and initially defined for each of the themes. A list of these themes was then made, followed by an open coding-process and categorization.

A “second pass” through data entailed separately and carefully re-examining each categorized theme to find the relevant statements or supporting data for each specific theme. During this re-examination process, questions about the consequences, conditions and interactions, strategies and processes were kept in mind to refine the themes and definitions. Connections between the concepts and evidence were reinforced. Final themes were named, defined and each line of data was integrated into these final themes. Finally, the relevant illustrative data for reporting on the themes were selected, which could highlight and illustrate each theme optimally.

## RESULTS

The main themes on perceptions about asset-based assessment that were identified during this study are: (a) focusing on assets, (b) individual and/or community assessment, (c) collaboration skills, and (d) self-reflective skills. These themes are components that are relevant for the assessor, not the assessed, as these themes are representative of the perceptions of educational psychologists and students in Educational Psychology doing asset-based assessment.

The following section illustrates each of the identified themes by including examples from the raw data. These raw data or direct quotes are numbered according to the specific participant who made a comment (each participant was assigned a number, e.g., P1 or P9).

### Theme 1: Focusing On Assets

Throughout the focus groups the term “assets” came up as a key concept in assessment. Even though this term was part of the question that was posed to the participants, the data indicated that the participants created asset-based assessment discursively by using this term continuously. The professionals explored their understanding thereof, giving synonyms and/or practical examples to explain and explore the new concept of “assets.”

P1: “Asset-based listening, asset-based interviewing, asset-based empathy... you should actually listen for green lights” P1: “Asset-analysis” P2: “Wouldn’t that be your ecograms, ecomaps and genograms?” P3: “We also have systemic models...we have models with which we can assess the processes and the areas of strengths” P3: “You must be able to draw up a capacity inventory or an asset-map of the context” P1: “assimilate all the knowledge to put it together in a framework of an asset profile of this child.”

At times the shift between the needs or deficit-based and asset-based approaches was debated, or the needs-based approach was used to explain what asset-based assessment must not be. P7: “The way in which you look at a child, looking at strengths, assets, uhm, not what is the problem...that is crucial.” P3: “It’s not going to be a deficit model where we go in to see this is wrong and that is wrong.” P8: “Most of the psychological assessment instruments we have is, um, needs based.” P6: “The strengths and gifts are not taken into account.”

### Theme 2: Individual and/or Community Assessments

The participants discussed the tension between individual assessments versus community assessments, stemming from the challenge to address different levels of assessment to enhance the impact of intervention.



P4: “We talk about two levels now; a generic kind of intervention program for a whole lot of communities...and then about individually tailored assessments, more focused program for specific needs to be addressed, where you look at that individuals’ assets...support, to help that individual, either groups or individual.” P3: “Now we are going to a whole context and assessing a whole context and situation.” P1: “It’s first to be pro-active within an environment and then after you’ve assessed all the assets, you’ve assessed all the resources, processes, you can then determine further assessment might be necessary for individual purposes.”

Again the discussion focused on practicalities to explore and explain their perceptions. P4: “What about program development, because you are going to need to develop programs.” P3: “That’s suitable for the context in which you are working... Work with existing programs and adapting it to make it more suitable.” P1: “The capacity inventory... to have a framework like that to go into a community and assess the assets, resources, processes.”

### Theme 3: Collaboration Skills

The participants suggested that collaboration was an integral part of asset-based assessment. They shared that team work, role-release, lifelong learning as well as working in an indigenous manner were of importance. Some of the participants suggested that this collaboration could lead to empowerment and capacity building.

P1: “...to go to um, an institute and telling them...listen, I have these skills, I want to collaborate with you, I want to go into a community...have initiative.” P1: I think something else which links up with collaboration ... is that of teamwork.” P4: “Something that links with teamwork is ... the skills to work multiculturally.” P3: “The appreciation of diversity.” P4: “To benefit from each other, benefit to learn.” P6: “And linking with that is actually guiding others to believe in themselves” P2: “Letting go of your own role.” P3: “There’s definitely people who have a value of collaborating with each other, not only as a skill, but they value the collaborative style of professional conduct.” P7: “That’s why the empowerment is so important, and to use the resources available so that they, the community can actually go on... um without becoming dependant on the professional.”

### Theme 4: Self-reflective Skills

The participants seemed to regard self-reflective skills, such as self-awareness, self-monitoring, as well as insight and understanding of the client as of extreme importance. They associated these skills as a continuous process in asset-based assessment.

P4: “Being aware of your own value system, self-awareness, um, know where you come from so that you understand and respect and so forth, self-awareness, cause if you don’t know yourself and know how you think and feel about communication and prejudice.” P1: “...for you to work comfortably, to be able to communicate, observe, have empathy for people different, diverse from what you know.” P3: “I think if we think of the Hypocritical principle of first, do no harm, this whole principle of self-awareness and reflection becomes very important, because you can be doing harm without even realising it, and that is what you want addressed, so that they don’t unknowingly do harm.” P5: “Add meta-cognitive skills... to really monitor the process and keep monitoring yourself with making another plan, adjusting it.” P4: “And I think with that goes honesty, honesty about your own weaknesses and honesty toward the people you are working with...” P5: “Transparency and openness.” P4: “Anti-bias is very important.” P3: “I think so, cause it links up with the value of non-discrimination.”

## DISCUSSION

The four themes will now be compared to literature on the asset-based approach, with the purpose of exploring implications for asset-based assessment.

### Focusing on Assets

The notion that the participants perceived a *focus on assets* as part of asset-based assessment came as almost no surprise. Available literature on the asset-based approach describes and explores the concept of “assets.” As this concept is the core of the meaning that is associated with this approach, it is essential to take a closer look at what is meant by “focusing on assets.” Kretzmann and McKnight (1993) explained “assets” as the talents, gifts, and skills of individuals, that which is present, the capacities of the individuals, associations and institutions. Hein (1999) also supported this when she argued for seeing and valuing youth as a resource and to capitalize on their fresh approach, talents, and energy. Sharpe and Greany (2000) referred to physical assets for example schools, playgrounds, and human assets. For Roehlkepartain and Leffert (2000), developmental assets are key factors that contribute to the development of children’s full potential. From the focus group data assets are described as “green lights,” available resources, capacities, areas of strength and gifts of individuals. This correlates with the asset-based literature, as well as with the strength-based approach. “Strengths” can be described as emotional and behavioral skills, competencies, and characteristics that create a sense of personal accomplishment and contribute to satisfying relationships (Rhee et al., 2001; Rudolph & Epstein, 2000). Seligman (2002) stated clearly that if we are to understand wellbeing, we also have to understand personal strengths.

For the educational psychologist working within a framework of focussing on assets, all the relevant role players must become involved in identifying the capacities, competencies, resources, and areas of strength. Due to most current standardized instruments being deficit-based, a dynamic process of assessment and intervention seems most valuable. This entails identifying relevant role-players, establishing a trusting and working relationship and maintaining these relationships in the assessment process to receive ongoing input and feedback. The needs and problems faced by a particular family, school and/or community are not negated, but the process of assessment and intervention will develop from focusing on what is available, i.e. the assets.

When defined, this theme “focusing on assets,” will therefore indicate an inclination in the educational psychologist *conducting* the assessment for the positive constructs, the strengths and the capacities.

### Individual and/or Community Assessments

Educational psychologists are urged by current socioeconomic scenarios to broaden their perspective of viewing the individual as having the problem. The interrelation between individual and community assessment and intervention, the realization that it is neither single dimensional nor leveled, but an interrelated process, ought to be carefully weighed and considered. Educational psychologists will probably find themselves moving along a continuum between individual tailored assessments and broader based community assessments and interventions. Sharratt (1995) argued that there are few resources left for a professional practice in South Africa, oriented toward one-to-one interventions on an individual basis. An applications-only, individually focused profession is unlikely to be viable in the future of South Africa. Community-based intervention offers a process for implementing change with respect to shared decision making with parents, teachers, and other community members. This may increase the awareness of community members of community resources related to psychological care (Buisse, Wesley, & Skinner, 1999).

It is important for educational psychologists to realize that assessments need to be tailored according to the contextual factors that play a role, such as, culture, language, and familiarity with assessment concepts. Terre Blanche and Durrheim (1999) argue that if psychology as a profession is truly interested in empowerment, the reform of testing practices should be one of its priorities. Existing programs or techniques can be adopted in a scientific manner to enhance its suitability for a specific context, as done by Herbst and Huysamen (2000) who adopted existing evaluating instruments to develop new developmental scales for environmentally disadvantaged preschool children. The success of adapting programs, methods and techniques will largely depend on the effective collaboration between professionals from all disciplines.

In light of this study, the theme “individual and community assessments” can be defined as broad, systemic assessment that assesses both the individual and the surrounding community. As Baltes, Glück, and Kunzmann (2002, p. 341) suggest, conceptions of individual and collective wellbeing are tied together and it involves the insight that one cannot exist without the other.

### Collaboration Skills

Enablement, capacity building and collaborating with significant caretakers in working partnerships are the essence of asset-based assessment (Mokwena, 1997; Page-Adams & Sherraden, 1997). In partnership with parents, other caretakers and teachers, the assets of the family or community can be identified, then mobilized and expand in order to help them optimally cope in their daily lives (i.e., emotional health for life). As Stone-McCown (2003, p. 85) states, “with multiple resources people can create stronger relationships woven with the strands of trust, optimism, accountability and care.” Another factor mentioned in the focus groups, was to work in a transdisciplinary manner. This links with the collaboration skills of teamwork, conflict resolution and role release. Embracing professionals from other disciplines in acknowledging their roles and capacities, and merging and mobilizing the experience and knowledge of all the stakeholders involved is essential in achieving collaboration.

Another point to consider is the notion of Indigenous Psychology, mentioned in the focus group. There are strong arguments in psychology that current psychological practices are carried out from a westernized, Eurocentric paradigm and that the rich tradition of African/South African psychological theory also needs to be incorporated for professionals to work within an indigenous framework. Indigenization implies that existing theories and constructs can be utilized, but in order to enhance the suitability in working with a specific community, it should be adapted, modified and/or refined (Freeman, 1991; Moll, 2002; Stead & Watson, 1999).

The asset-based rationale for assessment and intervention is to work with what we have, to think in terms of capacities, collaboration, partnerships, empowerment and enablement (Kretzmann & McKnight, 1993; Mokwena, 1997). To achieve this, the educational psychologist will have to move away from traditionalist thinking and create new and creative pathways for assessment and intervention.

Parents and other caretakers are increasingly seen as partners in the assessment process. The fields of Education and Psychology are moving away from the notion that the professional is the only expert that can assess and optimally know the child. Research increasingly indicates that by involving the parents/ caretakers the whole community becomes involved, with the secondary effects of capacity building and empowerment (Feikama, Segalavich, & Jeffries, 1997; Lockett, 2000; Webster-Stratton, 1997). Dinnebeil, Hale, and Rule (1999) emphasize this point by stating that effective services are provided in the context of a collaborative relationship between family members and the professionals, that parents are viewed as the key decision makers and regarded as partners in the service delivery. The characteristics of these partnerships include high levels of mutual acceptance, respect, openness, trust, and shared responsibility. This implies that the role of the educational psychologist will change from

the traditional view of assessing and intervening (Sharatt, 1995) to that of facilitating, consulting, networking, and collaboration.

A final operational definition stemming from the focus groups was that collaboration means the sharing of ideas in a joint decision-making and problem-solving process directed toward a common goal. An atmosphere of mutual respect and support, trust, and open communication enhances this process to enable all stakeholders involved.

### Self-reflective Skills

From the results it can be seen that a psychologist's self-reflectiveness is of extreme importance. These self-reflective skills and self-awareness correlate with multicultural values and the skills and knowledge needed for working with people with diversities or different abilities. Egan (1998) stated that the awareness of the helper's own cultural values and biases together with an understanding of the worldview of the client can help counselors to take special care to be sensitive to differences. Although reflection as a skill is well known in psychological circles (Baldwin, 2002; Upton, 1999) it has not yet been this strongly associated with the asset-based approach. Sharpe and Greany (2000) are so far the only authors that link reflection with the asset-based approach and mention that in assessments, constant self-reflection is necessary, and mutual respect and trust need to exist between the assessor and the community.

The importance for assessment is that self-reflection must become part of the assessment process, that one's self-awareness is an integral component and cannot just be seen as an added on skill. This links directly to the asset-based principle of working with what is present in the given situation. The strong emphasis on self-reflective skills as a category/theme in this study, opens up yet another new opportunity for research and for practitioners to explore. Self-reflective skills, according to the focus group data, entail the ability to be aware of your true self, your own value system, your own biases, strengths, respecting different viewpoints, true understanding of a fellow human being, and working in the true spirit of enhancing people's gifts, capacities, experiences, knowledge and insights.

## CONCLUSION

This study focused on perceptions about asset-based assessment, which is an under-examined area in Educational Psychology. Research on how assessment from an asset-based perspective translates into the theory and practice of Educational Psychology has been limited and fragmented. Perceptions of professionals were explored and four main themes, focusing on important components of the assessor, were identified. These perceptions enhance our understanding of the ways in which practitioners and scholars view asset-based assessment.

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## Predicting Positive Outcomes for Students With Emotional Disturbance

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This longitudinal study assessed changes in skills for students with emotional disturbance (ED) over a one-year time period in a private special education school and examined variables that predicted positive outcomes for these students. At Time 1, teachers rated 84 students with ED using standardized behavior rating scales to assess problem severity and skills for predicting inclusion. Information was also obtained about students' school behavior from the school's behavioral level system. One year later (Time 2), the educational placement of 83 of the 84 students was categorized as being either equal/more restrictive or being less restrictive, and teachers completed rating scales assessing skills for inclusion and emotional/behavioral strengths of 54 students still enrolled in the special education school. Students exhibited improved peer relationships and emotional maturity, and demonstrated several strengths. Scores indicated that the students with ED were unlikely to experience success in less restrictive educational settings. Although none of the variables predicted placement in less restrictive educational settings, problem severity, school behavior, and skills for inclusion each predicted the other positive outcomes. The importance of using strength-based approaches, in addition to empirically supported interventions, is highlighted.

Key words: Strengths, Emotional Disturbance, Educational Placement

Educating students with emotional disturbance (ED) has resulted in bleak outcomes (Meadows, Neel, Scott, & Parker, 1994; Reddy, 2001). The profound impact of social, emotional, and behavioral problems on students' educational, familial, social, vocational, and interpersonal functioning has been emphasized in the literature (Quinn & McDougal, 1998). Historically, assessment and intervention for youths with ED has focused on deficits, but recent ideology has centered on the importance of positive psychology and strength-based approaches (Huebner & Gilman, 2003; Rhee, Furlong, Turner, & Harari, 2001). The purpose of this longitudinal study was to assess changes in skills theorized to be related to successful inclusion over a one-year time period for students attending a special education school. The study also examined the extent to which problem severity, school behavior, and skills for predicting inclusion predicted a variety of positive outcomes for students with ED.

Half of students with ED drop out of school, which is the highest dropout rate among children with disabilities (U.S. Department of Education, 2002). In addition, students with ED who attend school are more likely to be placed in restrictive educational settings (Reddy, 2001). Although educating students with disabilities in the least restrictive educational environment has been a priority from both legislative and professional standpoints, children with ED are often unsuccessful in the general education setting and present educators with many challenges, such as poor work habits, social skills

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deficits, and behavioral extremes such as aggression or withdrawal (Meadows et al., 1994). School-based best practices include competent assessment, behavioral or cognitive-behavioral interventions, academic instruction, crisis management, and interdisciplinary collaboration (Quinn & McDougal, 1998). However, assessment of ED is often problematic, particularly with regard to the federal definition's exclusion of children only with social maladjustment, which can be difficult to distinguish from ED (Forness, 1992). In addition, school personnel are often unprepared for the challenging behaviors exhibited by students with ED (Cheney & Barringer, 1995).

Given these sobering statistics, it is not surprising that deficit-based approaches to youth functioning and outcomes have been institutionalized in school psychology training and practice. However, a shift toward positive psychology and strength-based perspectives has begun to occur (Huebner & Gilman, 2003; Rhee et al., 2001). In order to gain a comprehensive understanding of mental health, it is necessary to understand the factors that contribute to positive outcomes as well as those that contribute to psychopathology (Huebner & Gilman, 2003) and to better integrate the constructs of competence and psychopathology (Masten & Curtis, 2000).

Perhaps the most well articulated aspect of a strength-based approach in school psychology has been strength-based assessment. This has been defined as "the measurement of those emotional and behavioral skills, competencies, and characteristics that create a sense of personal accomplishment; contribute to satisfying relationship with family members, peers, and adults; enhance one's ability to deal with adversity and stress; and promote one's personal, social, and academic development" (Epstein & Sharma, 1998, p. 3). Although formal, norm-based assessment of strengths has been argued to be of great utility, there is a need for closer psychometric scrutiny of strength-based measures (Epstein, Dakan, Oswald, & Yoe, 2001).

### Predictors of Positive Outcomes

There has been a growing interest in factors related to child well-being and resilience, or competence despite exposure to significant stressors. Variables such as temperament, internal locus of control, extraversion, close peer relationships, and adult support systems outside the family predict resilience and well-being (Doll & Lyon, 1998; Huebner, 1991, 1997). There is evidence to suggest that children who are transitioned from special education to general education settings before sixth grade (Schneider & Byrne, 1984), and students who have effective work habits, positive peer relationships, and coping skills (Fad & Ryser, 1993) are more likely to be successful in less restrictive educational settings than children who are transitioned after sixth grade and those who do not possess these skills. However, students with ED are largely under-represented in the aforementioned studies. Significant attention has been given to problem reductions for students with ED, but far less is known about the strengths developed in special education programs (Epstein & Sharma, 1998). Both strengths and severity of psychopathology are related to children's discharge to less restrictive placements from residential treatment centers (Lyons, Uziel-Miller, Reyes, & Sokol, 2000; Oswald, Cohen, Best, Jenson, & Lyons, 2001), though school-based studies are needed to examine strengths that develop in special education programs and the extent to which individual skills and problem severity predict placement in less restrictive educational environments.

The *Scales for Predicting Successful Inclusion (SPSI; Gilliam & McConnell, 1997)* was developed to evaluate student adjustment and assist educators in making placement decisions. Although the *SPSI* has adequate psychometric properties, there is a lack of research using the instrument to predict outcomes for students with ED (Worth, 2000). Because these students are often expected to adopt the standards of behaviors expected in less restrictive environments, validating the *SPSI* for use with this population is important. The *SPSI* has been shown to distinguish between ED students with more and

less severe behaviors, but longitudinal studies are needed to assess the instrument's ability to assess change following intervention and to predict placement in less restrictive settings (Nickerson & Brosol, 2003).

This study addressed these research needs by examining strengths and skills of students with ED and assessing factors that predict positive outcomes. Goals of this study were to (a) compare skills related to successful inclusion across a one-year time period for students with ED attending a private special education school; (b) assess the skills for inclusion and strengths of these students; and (c) determine the extent to which school behavior, problem severity, and skills predict several positive outcomes for students with ED, such as restrictiveness of educational environment, readiness for inclusion, and emotional and behavioral strengths.

## METHOD

### Participants

*Time 1.* Participants at Time 1 consisted of 84 students classified with ED according to state and federal guidelines. The students attended a private special education school in the suburb of a large mid-Atlantic city. The school offers individualized instruction, behavioral interventions, social skills training, assessment, consultation, individual and group counseling, and interdisciplinary collaboration. Ninety-two percent of the sample was male and 8% was female. The students ranged in age from 9–18, with a mean age of 14.19 ( $SD = 2.27$ ). Eighty-seven percent of the sample was Caucasian, 11% was African-American, 1% was Asian, and the remaining 1% was from multi-racial backgrounds.

*Time 2.* Participants at Time 2 included 83 of the 84 students from Time 1 for whom data were collected on educational placement. One student moved out of state and the researchers were unable to obtain information about the placement. In addition, ratings of skills and strengths were collected for the 54 students who were still enrolled in the special education school. These students ranged in age from 11–18, with a mean age of 14.98 ( $SD = 2.16$ ). Eighty-three percent of this sample was Caucasian, 13% African-American, and the remaining 4% was distributed evenly across Asian and multi-racial backgrounds.

### Measures

*Skills for inclusion.* The *Scales for Predicting Successful Inclusion (SPSI)* (Gilliam & McConnell, 1997) is a 60-item standardized rating scale that includes four subscales: Work Habits, Coping Skills, Peer Relationships, Emotional Maturity, and a Successful Inclusion Quotient (SIQ). Teachers rate the student's behavior on a 9-point Likert-type scale broken down into three broadband categories (1–3 = *below average*, 4–6 = *average*, 7–9 = *above average*). The SIQ has a mean of 100 and a standard deviation of 15, and the subscales have a mean of 10 and a standard deviation of 3. The standardization sample consisted of 1,715 school-age children, which was divided into two norm groups: (a) students without disabilities and (b) students with disabilities. Both groups represented demographic characteristics of the U.S. school population.

According to the test manual (Gilliam & McConnell, 1997), internal reliability coefficients for the subscales are above .95 for students with and without known disabilities. Over a one-week time period, inter-rater reliability coefficients ranged from .82–.94 for students with disabilities. *SPSI* subscales correlated inversely with the *Connors' Teacher Rating Scales* and positively with the *Adjustment Scales for Children and Adolescents*. The *SPSI* successfully distinguished between students with a variety of disabilities and those without, as well as students who were successful in school and those who were unsuccessful.

*Problem severity.* The *Devereux Behavior Rating Scale–School Form (DBRS-SF)*; Naglieri, LeBuffe, & Pfeiffer, 1993) is a 40-item behavior rating scale comprised of a Total Scale and four subscales reflecting the federal definition’s domains of emotional disturbance: Interpersonal Problems, Inappropriate Behaviors/Feelings, Depression, and Physical Symptoms/Fears. Each item is rated on a scale from 0 to 4 (0 = *never*, 1 = *rarely*, 2 = *occasionally*, 3 = *frequently*, 4 = *very frequently*). The Total Scale has a mean of 100 and a standard deviation of 15, and subscales have a mean of 10 and a standard deviation of 3. The standardization sample consisted of 3,153 children and adolescents between the ages of 5-18.

Internal reliability coefficients for the Total Scale range from .92-.97 and the median internal reliability coefficients for the subscales range from .82-.85. Test-retest reliability coefficients range from .53-.84 for the subscales and .69-.85 for the Total Scale. Subscale inter-rater reliability coefficients range from .36-.60 and Total Scale reliability coefficients range from .40-.53. Several studies examining the criterion-related of the *DBRS-SF* have found overall classification accuracy rates of 75.3% for the 5-12 year-old sample and 77.5% for the 13-18 year-old sample.

*School behavior.* A behavioral level system is the primary means by which the school collects data on students’ school behavior. All students entering the school begin on Level 2, and work their way up through levels 3, 4, and 5 as they achieve behavioral success. During each period, students complete a point sheet where they record whether or not they have achieved each of the following goals: (a) follow directions the first time, (b) complete work within assigned time, (c) keep hands and feet to self, (d) remain on task, and (e) use positive comments and language. Teachers also record whether or not the students have achieved each of the goals and students can earn up to one bonus point each period if their self-assessment matches the teacher’s assessment of their behavior. The teacher point total is used to determine whether the student meets the point requirement to “earn” the day. A student must earn a specified number of days to move up a level (e.g., students must obtain specified number of points for 10 days on level 2, 15 days on level 3, and 20 days on level 4, and 10 days on level 5).

*Educational environment.* Information was obtained about each student’s educational environment, which was coded “0” for equally or more restrictive (e.g., special education school, residential treatment center, or juvenile detention facility) or “1” for less restrictive (e.g., home school district, vocational school, graduated) compared to the previous year.

*Emotional and behavioral strengths.* The *Behavioral and Emotional Rating Scale (BERS)*; Epstein & Sharma, 1998) was designed to measure the emotional and behavioral strengths of children. The scale’s 52 items comprise five areas of childhood strengths, derived through factor analysis: Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength. Combining the five subscale standard scores derives the Strength Quotient. Items are rated on a Likert-type scale ranging from 0 to 3 (0 = *not at all like the child*, 1 = *not much like the child*, 2 = *like the child*, 3 = *very much like the child*). The Strength Quotient has a mean of 100 and a standard deviation of 15 and the subscales have a mean of 10 and a standard deviation of 3. The standardization sample for the *BERS* consisted of a nationally representative sample of 2,176 students ranging in age from 5-18 years. In addition, 861 students ranging in age from 5-18 diagnosed with an emotional or behavioral disorder comprised a separate normative group.

The internal consistency for the Strength Quotient ranged from .95-.97 for disabled children and .96-.99 for nondisabled children. One study found a test-retest reliability of .99 and inter-rater reliability coefficients of .98 for the Strength Quotient and .83 and higher for the subscales (Epstein, Harniss, Pearson, & Ryser, 1999). The concurrent validity of the *BERS* has been demonstrated with other rating scales (Harniss, Epstein, Ryser, & Pearson, 1999) and the *BERS* differentiates between emotionally or behaviorally disabled children and nondisabled children (Epstein & Sharma, 1998).

## Procedure

Time 1 data were collected in Spring 2002. The *SPSI* was designed to be completed by teachers, so the other rating scales were also administered to teachers to ensure consistency. All 11 certified special education teachers in the school were asked to read instructions and complete the *SPSI* and the *DBRS-SF* for students in their homerooms, as the homeroom teacher served as the primary instructor for students and the liaison between home and school. Information about each student's behavioral level during the week preceding the completion of the rating scales was obtained. Because the behavioral level system is structured according to a graduated system, the number of days earned was divided by the total number of days needed for advancement, yielding equal proportions for each behavioral level. The lowest possible level was level 2, day 1 (2.0), and the highest level was level 5, day 10 (6.0). Time 2 data were collected one year later in Spring 2003. Information about the child's educational placement was obtained from school staff. All 10 certified special education teachers in the school completed the *SPSI* and *BERS* on their homeroom students, resulting in 10 students having the same teacher rate their behavior for Time 1 and Time 2. The *BERS* replaced the *DBRS-SF* at Time 2 to measure positive outcomes for the students. Standard scores were obtained by using norms for the standardization sample, as opposed to clinical norms, to facilitate comparisons across measures.

## RESULTS

### Changes in Skills for Inclusion

To assess changes in students' skills for inclusion from Time 1 to Time 2, a series of paired *t*-tests were conducted on the SIQ and all subscales of the *SPSI*. Because five separate *t*-tests were conducted, a Bonferroni correction was used to minimize Type I errors, resulting in an alpha level of .01. As shown in Table 1, scores in all areas increased from Time 1 to Time 2, with Peer Relationships and Emotional Maturity showing significant increases. Despite these changes, Time 2 SIQ and *SPSI* subscale means indicated that students were "unlikely" or "very unlikely" to exhibit skills necessary for successful adjustment in inclusive settings according to descriptive classifications in the *SPSI* test manual (Gilliam & McConnell, 1997).

The emotional and behavioral strengths of the students with ED were assessed at Time 2 with the *BERS*. The overall mean on the Strength Quotient of 87.50 ( $SD = 12.28$ ) fell within the "below average" range (Epstein & Sharma, 1998). However, many strengths across subscales fell into the qualitative "average" range compared to the normative sample: Interpersonal Strength ( $M = 8.00, SD = 2.19$ ), Family Involvement ( $M = 8.50, SD = 2.13$ ), Intrapersonal Strength ( $M = 8.78, SD = 2.60$ ), School Functioning ( $M = 8.04, SD = 2.64$ ), and Affective Strength ( $M = 8.69, SD = 2.39$ ).

### Predictors of Positive Outcomes

As shown in Table 2, the predictor variables of less problem severity and better school behavior, as measured by the Time 1 *DBRS-SF* Total Scale and behavioral level, respectively, correlated significantly with the Time 2 criterion variables of skills for inclusion and emotional and behavioral strengths. In addition, Emotional Maturity was significantly correlated with both criterion variables, and Inappropriate Behaviors/Feelings was correlated in a significant, inverse direction with both criterion variables. Time 1 Coping Skills and the SIQ correlated significantly with the Time 2 SIQ. In addition, Interpersonal Problems correlated inversely with the Time 2 SIQ. Depression at Time 1 was negatively correlated with emotional and behavioral strengths at Time 2. In addition, the criterion variables (SIQ and *BERS* Strength Quotient) correlated significantly,  $r = .73, p < .001$ .

**Table 1.**  
**Time 1 and Time 2 Scales for Predicting Successful Inclusion Ratings (n = 54)**

Scales	Time	
	Time 1 <i>M</i> ( <i>SD</i> )	Time 2 <i>M</i> ( <i>SD</i> )
Work Habits	6.80 2.97	7.00 2.72
	<i>t</i> (53) -.42	
Coping Skills	5.46 3.06	6.11 3.04
	<i>t</i> (53) -1.41	
Peer Relationships	5.06 3.21	6.44 3.27
	<i>t</i> (53) -2.84*	
Emotional Maturity	5.04 2.96	6.39 3.33
	<i>t</i> (53) 3.01*	
Successful Inclusion Quotient	70.67 17.88	76.59 17.53
	<i>t</i> (53) -2.15	

*Note.* Subscale standard score  $M = 10$ ,  $SD = 3$ ; Successful Inclusion Quotient standard score  $M = 100$ ,  $SD = 15$ .

\* $p < .01$ .

Sixty-three students (76%) were in educational placements at Time 2 of equal or greater restrictiveness than those at Time 1. The majority (57) remained in the same special education school, 1 student was transferred to another special education school, 4 were hospitalized or in juvenile detention facilities, and 1 student dropped out. Of the 20 students who were in less restrictive educational placements at Time 2, 16 returned to their public school districts and 4 graduated from high school. To examine variables that predicted educational placement, logistic regression analyses were conducted. Younger age, less severe problems, possession of skills for inclusion, and positive school behavior have all been theorized to be important for placement in less restrictive educational settings. Therefore, predictor variables included age, total scale scores on the *DBRS-SF* and *SPSI*, and behavioral level. The criterion variable was educational placement at Time 2, dichotomized as the same or more restrictive (coded 0) or less restrictive (coded 1) than the previous year. The logistic regression model was not significant,  $\chi^2(4) = 4.75$ ,  $p = .32$ , indicating that the variance in educational placement was not explained by the model.

**Table 2.**  
*Correlations Between Time 1 Predictor Variables and Time 2 Criterion Variables*

Time 1 Predictor Variables	Time 2 Criterion Variables	
	<i>SPSI</i> Successful Inclusion Quotient	<i>BERS</i> Strength Quotient
Work Habits	.22	.21
Coping Skills	.35**	.19
Peer Relationships	.23	.25
Emotional Maturity	.40**	.28*
Successful Inclusion Quotient	.34*	.26
Interpersonal Problems	-.31*	-.23
Inappropriate Behaviors/Feelings	-.42**	-.34*
Depression	-.22	-.43**
Physical Symptoms/Fears	-.09	-.21
<i>DBRS-SF</i> Total Scale	-.38**	-.47**
Behavioral Level	.35**	.34*

*Note.* *SPSI* = Scales for Predicting Successful Inclusion; *BERS* = Behavioral and Emotional Rating Scale; *DBRS-SF* = Devereux Behavior Rating Scale-School Form.

\* $p < .01$ . \*\* $p < .001$ .

A simultaneous multiple regression analysis was conducted for the 54 students for whom Time 2 *SPSI* data were collected to assess the extent to which age and functioning at Time 1, assessed by the *SPSI*, *DBRS-SF*, and behavioral level system, predicted ratings on the *SPSI* SIQ. Simultaneous regression was selected to assess the extent to which each variable contributed unique variance to students' readiness for inclusion. The regression model was significant,  $F(4, 53) = 4.70, p < .01$ , Adjusted  $R^2 = .22$ . A closer inspection of the data indicated that the only variable that significantly predicted *SPSI* scores at Time 2 was the *DBRS-SF* Total Scale from Time 1,  $\beta = -.32, t = -1.99, p < .05$ . To assess which specific problems predicted the SIQ at Time 2, a separate regression model was conducted with *DBRS-SF* subscales serving as predictor variables,  $F(4, 53) = 2.68, p < .05$ , Adjusted  $R^2 = .11$ . The only variable that contributed unique variance to the SIQ at Time 2 was the *DBRS-SF* Inappropriate Behavior/Feelings subscale,  $\beta = -.39, t = -2.07, p < .05$ . A series of exploratory standardized multiple regression analyses were conducted with each subscale of the *SPSI* serving as a separate criterion variable.



School behavior, as measured by the behavioral level system, predicted Time 2 Work Habits,  $F(3, 53) = 5.72, p < .01$ , Adjusted  $R^2 = .21$ ,  $\beta = .42, t = 2.76, p < .01$ , and Coping Skills,  $F(3, 53) = 4.50, p < .01$ , Adjusted  $R^2 = .17$ ,  $\beta = .30, t = 1.90, p < .06$ . Time 1 SIQ predicted Time 2 Peer Relationships,  $F(3, 53) = 3.02, p < .05$ , Adjusted  $R^2 = .10$ ,  $\beta = .30, t = 2.21, p < .05$ , and Emotional Maturity,  $F(3, 53) = 4.91, p < .01$ , Adjusted  $R^2 = .18$ ,  $\beta = .29, t = 2.24, p < .05$ .

The multiple regression analysis using Time 1 behavioral level, SIQ, and the *DBRS-SF* Total Scale as predictor variables and the *BERS* Strength Quotient, was also significant,  $F(3, 53) = 5.23, p < .01$ , Adjusted  $R^2 = .19$ . Similar to the findings for the Time 2 SIQ, the only variable that significantly predicted emotional and behavioral strengths at Time 2 was the Time 1 *DBRS-SF* Total Scale Score,  $\beta = -.44, t = -2.70, p < .01$ . A follow-up simultaneous regression analysis revealed that the *DBRS-SF* Depression subscale was the only variable that uniquely predicted the Time 2 *BERS* Strength Quotient,  $F(4, 53) = 3.45, p < .01$ , Adjusted  $R^2 = .16$ ,  $\beta = -.36, t = -2.43, p < .05$ . Exploratory analyses using each Time 2 *BERS* subscale as a separate criterion variable indicated that behavioral level predicted School Functioning,  $F(3, 53) = 3.22, p < .05$ , Adjusted  $R^2 = .11$ ,  $\beta = .36, t = 2.21, p < .05$  and problem severity, measured by the *DBRS-SF*, predicted Interpersonal Strengths,  $F(3, 53) = 5.38, p < .01$ , Adjusted  $R^2 = .20$ ,  $\beta = -.33, t = -2.14, p < .05$ .

## DISCUSSION

Results of this study add to our limited knowledge about strengths exhibited by students with ED, changes in skills over a one-year time period in a special education setting, and variables that predict positive outcomes for these students. Students with ED showed improved emotional maturity and peer relationships over the course of a one-year time period in the special education school. In addition, teachers rated the students as having a number of strengths at Time 2, including intrapersonal and affective strengths, school functioning, family involvement, and interpersonal strengths. Although this may suggest that the "best practice" services provided in the school (e.g., behavioral interventions, interdisciplinary collaboration) led to improved skills, this determination cannot be made definitively due to the non-experimental nature of the design. Although the students' skills improved over time, their scores on the *SPSI* suggested that success in inclusive settings would be unlikely, which is consistent with the known pervasive nature of the problems for students with ED (Quinn & McDougal, 1998).

None of the variables predicted the restrictiveness of educational placement for the students. Therefore, the predictive validity of the *SPSI* with this sample was not supported, which is consistent with Worth's (2000) hypothesis that the *SPSI* may be more reliable and valid for students with physical and learning disabilities than for those with ED. Because the variables under investigation in this study were limited to student skills and behaviors, important teacher and school variables that may have accounted for much of the variance in restrictiveness of educational placement were not examined. Inclusion of students with ED into general education settings appears to require intensive training of school personnel, consultative support, and specific interventions (Shapiro, Miller, Sawka, Gardill, & Handler, 1999).

Problem severity was a significant predictor of students' skills for inclusion in Year 2. Specifically, students with lower scores on the Inappropriate Behaviors/Feelings subscale of the *DBRS-SF*, which assessed externalizing behaviors (e.g., difficulty controlling anger, verbal and physical disruptive behaviors), were more likely to exhibit skills for inclusion and emotional and behavioral strengths. Aggression and anger have been associated with a wide range of social, academic, and health-related outcomes (Smith & Furlong, 1998) and results of this study underscore their potential role in prevent-

ing children from increasing skills and maximizing strengths. The presence of these externalizing behaviors also highlights the difficulty in distinguishing emotional disturbance from social maladjustment.

School behavior, as assessed by the behavioral level system, predicted work habits, coping skills, and school functioning, suggesting the importance of day-to-day school behavior for successful outcomes. These results also provide evidence for the use of the level system as one of many possible predictors of future school performance for students. In addition, the SIQ predicted scores on two Year-2 *SPSI* subscales. Although the *SPSI* did not predict students' placement at Time 2, the fact that the total scale predicted subscale scores one year later is a positive indicator of the measure's stability.

Depression predicted students' emotional and behavioral strengths at Time 2. Although externalizing behaviors have greater long-term predictive significance for competence, internalizing problems may have greater significance in terms of future adaptation than once thought (Masten & Curtis, 2000). Results from this study suggest that depression may inhibit children's emotional and behavioral strengths, particularly in terms of interpersonal strengths.

### Limitations

Because this study was conducted with a small sample consisting primarily of Caucasian students from a single private education school, results cannot be generalized to other populations. Special education teachers completed all the ratings, so it is possible that expectancy effects influenced the results. It would be useful to validate the teachers' ratings by obtaining ratings from parents and students, especially because some measures, such as the *DBRS-SF*, have low inter-rater reliability coefficients. In addition, few students were exited from the school, which may have diminished the ability of the measures to find differences. Both the small sample size and measurement issues may have contributed to nonsignificant findings. In addition, using restrictiveness of educational placement as an outcome criterion was limiting because it did not provide information about the student's functioning within the environment. As mentioned previously, a limitation of this study was that it focused exclusively on student strength, skills, and behaviors, as opposed to important contextual variables (e.g., placement options).

### Future Research

Although the strength-based approach is, in some ways, in its empirical infancy, the growing recognition of its importance and the potential for research that may enhance the lives of children and families is exciting. Future studies should assess positive outcomes for students with ED using information gathered from multiple informants, such as special education teachers, parents, students, and general education teachers from the inclusive setting. Research is also needed to examine changes in emotional and behavioral strengths of children with ED over time and the specific types of programs and interventions that lead to these positive changes, which could be measured by administering the same measures pre- and post-intervention. Longitudinal studies that examine the dynamic interplay between problem severity, strengths, academic skills, and adaptive functioning in less restrictive educational environments are also needed to further explore the complex relationship between these constructs.

### Implications for Practice

Students in this private education school showed improvements in emotional maturity and peer relationships over a one-year time period and exhibited many strengths, yet still were unlikely to be

successful in inclusive settings. In addition, both externalizing and internalizing problems were predictive of skills and strengths. It is critical for school psychologists to use comprehensive assessment, prevention, and intervention approaches that enhance strengths and skills. Strength-based approaches should not negate the need for treatment of emotional and behavioral problems, rather, recognizing and nurturing existing skills and strengths should augment the use of empirically-based interventions.

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## Lending “Strength” to the Assessment of Preschool Social-Emotional Health

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This paper compares the advantages of a strength-based perspective to the long-standing pathology-based approach to assessment. Theoretical advantages to strength-based assessment, such as greater compatibility with early prevention efforts and increased acceptance by multiple stakeholders, are suggested. The *Devereux Early Childhood Assessment (DECA)*, a reliable measure of within-child protective factors in preschoolers, is used to empirically validate the utility of strength-based assessment. The authors found the *DECA* to discriminate between groups of preschoolers with and without emotional and behavior problems, the *DECA* Total Protective Factor Scale to predict group membership just as well as the *DECA* Behavioral Concerns Screener, and the *DECA* assessment of protective factors to predict behavioral concerns as well as a standardized assessment of risk. These empirical findings, combined with the presented theoretical rationale, indicate that a strength-based perspective and the resilience model have great utility for universal use with preschool populations.

Key words: Strengths, Resilience, Preschool, Social-Emotional, Assessment, DECA

Strength-based assessment and intervention is a comparatively new approach in child psychology, especially in contrast to the more established pathology-oriented models of childhood psychopathology. As a consequence, the literature discussing the relative advantages and challenges of strength-based approaches is sparse and often anecdotal. After five years of implementing a strength-based assessment and intervention program for at-risk preschoolers, the Devereux Early Childhood Initiative can now further explain the merit of the strength-based perspective. This article shares some of the compelling theoretical reasons that one could use to advocate for a strengths orientation. Though many of these assertions have not yet been studied empirically, this article will present contrasted group data that clearly show the utility of strength-based assessment. This article is written in hope that the findings will encourage researchers and practitioners to put additional assumptions about the strengths perspective through a similar evaluative process.

### THEORETICAL ADVANTAGES OF STRENGTH-BASED ASSESSMENT

#### An Advantage of Timing

The most notable advantage of a strength-based approach is that it lends itself far more readily to primary prevention and wellness-promotion than a pathology-focused model. Rather than waiting for challenging or symptomatic behaviors to occur, a strength-based model can assess the absence or relative weakness of any necessary skill, competency, or attribute so that an intervention designed to strengthen these characteristics can be implemented prior to the emergence of problematic behaviors. When done effectively, this can result in either the avoidance of symptomatic behaviors completely or at least in their reduced severity, longevity, or pervasiveness. As Walker et al. (1996) explain so well, this rationale for the strength perspective has already been embraced by more medically oriented sectors of the human service field. For example, the Department of Public Health makes recommenda-

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tions to exercise and learn stress management techniques in order to prevent or moderate the risk of coronary trouble, even before any sign of coronary trouble is evident. Such a sound medical approach is no longer questioned, and neither should be the role of primary prevention in psychology.

Even after problematic behaviors have occurred, a strength-based approach to intervention has distinct advantages over pathology-focused strategies. Often conceptualized within a functional behavioral framework, these strategies strive to provide children with pro-social ways of meeting their needs, and in effect, render counterproductive and negative behaviors useless. Fraser, Richman, and Galinsky (1999) reviewed the finding that cumulative protective factors can reduce problem behavior over time. This implies that a strength-based approach may also be extremely influential as an intervention tool after symptoms have developed, making a strength-based approach useful at all stages of a child's development.

### **An Advantage from Every Perspective**

A strengths-oriented functional approach to treatment offers advantages to all parties involved in the treatment of the client (e.g., the client, parent, educator, etc.). From the perspective of the client, strength-based approaches can add competencies (e.g., friendship skills and problem solving skills), which promote individual social and emotional health. These new strengths, because they are often automatically rewarded, may also generalize more easily and naturally to non-treatment settings. This contrasts with approaches designed at reducing problem behaviors that attempt to manage antecedent conditions or post-behavior consequences in ways that are difficult to generalize to new settings. Strength-based approaches also avoid the negative correlates of response reduction measures, such as an increased arousal or frustration, or a student becoming inured to punishment. Furthermore, because focusing on developing a child's strengths typically enhances his or her sense of empowerment and self-esteem, such approaches may be more motivating than consequential strategies, resulting in greater treatment compliance and less attrition.

From a parent/guardian perspective, a strengths orientation can lead to greater collaboration between the caregiver and the treatment professionals. Walker et al. (1996) position collaboration as the key to reversing severe delinquent behavior. Collaboration is more likely with a strength-based approach due to the common desire of caregivers and professionals not to label young children with a permanent pathology. In addition, pathology-focused strategies can induce shame or guilt for a parent when meeting with a professional, interfering with effective collaboration. Parents often sense that they are being blamed for their child's problem behaviors and may also be loathe to discuss their difficulties in implementing contingency management strategies. Though professionals should continue to validate the emotional distress that parents may feel as a result of their child's challenging behaviors or symptoms, it may encourage the resilience of parents to additionally speak about their child in a positive light.

A strengths-oriented, primary prevention program is often met with greater acceptance and enthusiasm by parents and teachers than a deficit or pathology oriented model. Both parents and teachers see their mission as providing children with the skills necessary for success at home, in school, and for life. Consequently, a strength-fostering program is consistent with their self-perceived role and feels comfortable for them to implement. Conversely, many parents and teachers of young children seem less comfortable focusing on a child's misbehavior and implementing problem-focused strategies. A positive, strengths promotion approach may also facilitate attachment between the child and the parent, leading to greater advocacy and collaboration.

In order for a strength-based assessment approach to be viewed as advantageous from the perspective of a school administrator or psychologist, it must be shown to be an effective, psychometrically sound method. Additionally, it must accurately identify those children who may be at increased



risk for negative developmental outcomes due to relatively weak or inadequate strengths in key areas that could be targeted through a primary prevention program. To be most useful, this assessment should be theory-based, easy to administer and interpret, and lead to strategies to help develop the inchoate child characteristics.

Unfortunately, few empirically sound, well-developed measures of important child strengths exist. There are some instruments such as the *Behavioral and Emotional Rating Scale* (Epstein & Sharma, 1998) and the *Child and Adolescent Needs and Strengths* (Lyons, 1999) that have now begun to fill this gap, but are not to be widely used at the preschool level as a universal measure. The Institute of Clinical Training and Research of the Devereux Foundation developed a measure of preschool children's strengths that are related to healthy social and emotional development. This assessment is called the *Devereux Early Childhood Assessment (DECA)*.

### THE DEVEREUX EARLY CHILDHOOD ASSESSMENT

The *Devereux Early Childhood Assessment* (LeBuffe & Naglieri, 1999) is a nationally normed behavior rating scale evaluating within-child protective factors in preschool children aged two to five. Completed by parents, family caregivers, or early childhood professionals (i.e., preschool teachers and child care providers), the *DECA* evaluates the frequency of 27 positive behaviors (i.e., strengths) exhibited by preschoolers. Typical items include “have confidence in his/her abilities,” “act good-natured or easygoing,” and “ask adults to play with or read to her/him.” These items were derived from the childhood resilience literature and through focus groups conducted with parents and early childhood professionals. The *DECA* also contains a 10-item behavioral concerns screener. The standardized scores that the *DECA* provides are *T*-scores and percentiles.

The three primary purposes of the *DECA* are to (a) identify children who are low on the protective factors so that targeted classroom and home-based strategies can be implemented to strengthen these abilities, (b) generate classroom profiles indicating the relative strengths of all children so that classroom design and instructional strategies can facilitate the healthy social and emotional growth of all children, and (c) screen for children who may be exhibiting behavioral concerns so that these can be addressed before they become entrenched and possibly develop into behavioral disorders.

#### A Standardized Assessment

The *DECA* was normed on a sample of 2,000 children from 28 states that accurately reflected the diversity of preschool children in the country. Half of the children in the sample were rated by a parent or other family caregiver. The other half were rated by a preschool teacher or childcare center staff. Fifty-one percent of the children rated were boys and 49% girls. One quarter of the children in the sample were from poor families (defined as either receiving public assistance or subsidized child care), which matches the prevalence of poverty among young children. The sample was stratified based on the demographic characteristics used by the U.S. Census Bureau including, race, Hispanic ethnicity, and region of residence. The most recent data available from the U.S. Department of the Census (1996) was used to identify appropriate percentages for these variables.

#### Reliable Scale Structure

Exploratory factor analysis of the standardization items yielded a comprehensible series of scales that were consistent with published descriptive longitudinal research on protective factors (e.g., Werner & Smith, 1982). A three-factor solution fit the data best. Based on an inspection of the item content of the three factors, the scales were labeled: *Initiative* – which measures the child's ability to use independent thought and action to meet his or her needs; *Self Control* – which assesses the child's ability to

experience a range of feelings and express them using the words and actions that American society considers appropriate; and *Attachment* – a measure of a mutual, strong, and long-lasting relationship between a child and significant adult(s). The factor analytic results are presented in Table 1.

**Table 1.**  
***Varimax Rotated Factor Analysis Results for the DECA Protective Factor Scales***

	Factor 1	Factor 2	Factor 3
19. Try or ask to try new things or activities	.65		
20. Start or organize play with other children	.63		
36. Make decisions for herself/himself	.63		
3. Choose to do a task that was challenging for her/him	.62		
16. Try different ways to solve a problem	.59	.40	
12. Keep trying when unsuccessful (act persistent)	.56		
28. Say positive things about the future (act optimistic)	.54		
24. Focus his/her attention or concentrate on a task or activity	.52		
32. Ask other children to play with her/him	.51		
2. Do things for himself/herself	.48		
7. Participate actively in make-believe play with others (dress-up, etc.)	.46		
21. Show patience		.74	
13. Handle frustration well		.72	
5. Control her/his anger		.71	
4. Listen to or respect others		.62	.37
33. Cooperate with others		.59	
30. Accept another choice when her/his first choice was unavailable		.56	
34. Calm herself/himself down when upset		.54	
25. Share with other children		.52	
10. Show affection for familiar adults			.69
17. Act happy or excited when parent/guardian returned			.60
1. Act in a way that made adults smile or show interest in her/him			.60
29. Trust familiar adults and believe what they say			.58
37. Show an interest in what children/adults are doing			.55
22. Ask adults to play with or read to her/him			.55
6. Respond positively to adult comforting when upset			.52
31. Seek help from children/adults when necessary			.48

*Note:* Only loadings above .34, which accounts for 10% or more of the item variance, are reported.

The *DECA* is a highly reliable instrument. Each of the alpha coefficients for the protective factor scales meets or exceeds the .80 “desirable standard” established by Bracken (1987) for internal consistency estimates.

### **A Valid Instrument**

An important and interesting question regarding the *DECA* was to what degree the assessment of a child’s strengths would provide useful information for identifying children who may be at risk for social and emotional difficulties. In order to determine whether strength-based assessments could be a valid tool when used to assess these developmental trajectories and to inform intervention strategies for preschool children, three studies of the *DECA* were conducted. The purpose of these three studies

was to explore the accuracy of the interpretations based on *DECA* test scores. According to the *Standards for Educational and Psychological Testing* published by the American Psychological Association in 1999, such studies demonstrating the degree to which “evidence and theory support the interpretation of test scores” (p. 9) is fundamental to establishing the validity of strength-based measurement.

### STUDY ONE: CONTRASTED GROUPS CRITERION VALIDITY

Criterion validity measures the degree to which the scores on the assessment instrument predict either (a) an individual’s performance on an outcome or criterion measure or (b) the status or group membership of an individual. Protective factors buffer children against stress and adversity (Masten & Garmezy, 1991), hence it follows that children with high protective factors should have better developmental outcomes than those that lack similar strengths. As one important outcome for preschool children is social and emotional health, it is predicted that children with high scores on the *DECA* Protective Factor Scales should have greater social and emotional health than children with low scores on these scales.

#### Method

To test this hypothesis, *DECA* ratings were obtained from the family members of children in 39 different programs across 18 states, and categorized into two groups of preschool children. The problem-identified sample ( $n = 95$ ) had known emotional and behavioral problems as determined by their meeting at least one of the following criteria: (a) a program or plan had been developed to manage their behavioral problems, (b) they had been referred to a professional for emotional/behavioral problems, (c) they were currently being treated by a mental health professional, (d) they had been asked to leave a child care/preschool program due to their behavior, and/or (e) they had been given a psychiatric diagnosis. The comparison group was a group of typical preschool children labeled the community sample ( $n = 300$ ). From the community sample, a matched sample of 86 children was selected for comparison with the identified sample. Matching variables included age, gender, race, and Hispanic ethnicity. Table 2 provides descriptive information on the samples that shows that the two groups were demographically similar.

**Table 2.**  
*Sample Characteristics for the Criterion Validity Study*

		Identified Sample ( $n = 95$ )		Community Sample ( $n = 86$ )	
		$n$	%	$n$	%
Age	<i>Mean (SD)</i>	4.6 (.9)		4.6 (.9)	
Gender	Boys	63	66	58	67
	Girls	32	34	28	33
Race	Asian/Pacific Islander	2	2	3	3
	Black	25	27	28	33
	Native American	1	1	0	0
	White	57	60	50	58
	Other	9	10	5	6
Hispanic Ethnicity		9	10	4	5

## Results

The contrasted groups approach to assessing criterion validity examines scale score differences between groups of individuals who differ on an important variable. Multivariate Analysis of Variance (MANOVA) procedures were used to contrast Initiative, Self-control, and Attachment Scale *T*-scores for the identified and community samples. Independent *t*-tests were used to compare both the Total Protective Factors and Behavioral Concerns Scale scores for the two groups.

Table 3 presents the results of this study and documents that there were large and significant differences between the mean scores of the identified and community samples on all five *DECA* scales. The mean standard score differences and other results reported in Table 3 clearly show that the ratings of the two groups differed significantly despite the similarity in demographic characteristics. All scale comparisons were significant ( $p < .01$ ).

**Table 3.**  
*Mean Scores, Standard Deviations, and Difference Statistics for Contrast Groups Validity Study*

		Identified Sample ( <i>n</i> = 95)	Community Sample ( <i>n</i> = 86)
Initiative	<i>Mean</i>	41.2	48.6
	<i>SD</i>	9.8	9.2
	<i>F</i> value		27.30***
	<i>d</i> -ratio		0.78
Self-Control	<i>Mean</i>	38.9	49.1
	<i>SD</i>	10.2	10.0
	<i>F</i> value		46.40***
	<i>d</i> -ratio		1.01
Attachment	<i>Mean</i>	41.9	47.0
	<i>SD</i>	10.5	11.3
	<i>F</i> value		10.10**
	<i>d</i> -ratio		0.47
Total Protective Factors	<i>Mean</i>	38.5	47.3
	<i>SD</i>	9.9	10.0
	<i>t</i> -value <sup>a</sup>		-6.00**
	<i>d</i> -ratio		0.89
Behavioral Concerns	<i>Mean</i>	65.4	55.7
	<i>SD</i>	8.8	9.3
	<i>t</i> -value <sup>a</sup>		7.15**
	<i>d</i> -ratio		1.08

\*\* $p < .01$  \*\*\* $p < .001$

<sup>a</sup>*t*-test for independent means

In addition to being statistically significant, the means of the two groups on each scale differed by approximately half a standard deviation or more (*d*-ratios range from .47 to 1.08). The *d*-ratio is a measure of the size of difference between the mean scores expressed in standard deviation units. According to commonly accepted guidelines for interpreting *d*-ratios (Cohen, 1988), *d*-ratios of .2, .5, and .8 are interpreted as small, medium, and large, respectively. Therefore, the effect sizes in Table 3 would be characterized as small verging on medium (Attachment), medium verging on large (Initia-

tive), and large (Self-control, Total Protective Factors, and Behavioral Concerns). These results provide evidence of the validity of a strength-based assessment such as the *DECA* in discriminating between groups of preschoolers with and without emotional and behavioral problems.

### **STUDY TWO: INDIVIDUAL PREDICTION CRITERION VALIDITY**

Knowing that the *DECA* discriminates between groups of preschoolers, the next step was to determine whether a strength-based assessment scale score could accurately predict group membership for individual study participants. The extent to which both the Total Protective Factor Scale scores and the Behavioral Concerns Scale scores accurately predicted membership in either the identified or community sample was investigated.

#### **Method**

Using the ratings collected for the contrasted group study detailed above, individuals were reorganized into two new groups. Those individuals with a *T*-score of less than or equal to 40 on the Total Protective Factors Scale were predicted to be members of the identified sample; those with scores above 40 were predicted to be members of the community sample. For the Behavioral Concerns Scale, individuals with a *T*-score of greater than or equal to 60 were predicted to be members of the identified sample; those with scores below 60 were predicted to be members of the community sample. *T*-Scores of 40 and below suggest poor Protective Factor scores and *T*-Scores of 60 and above on the Behavioral Concerns Scale indicate potential behavior problems. These cut scores were chosen to be consistent with the interpretation guidelines presented in the *DECA* manual.

#### **Results**

The accuracy of these predictions was compared to actual group membership and the results are shown in Table 4. The Total Protective Factors Scale score correctly predicted group membership for 69% of the children in this study. Chi-square analysis results,  $\chi^2 = 26.49$ ,  $df = 1$ ,  $p < .001$ , indicate that the Total Protective Factors Scale scores were significantly related to group membership. The Behavioral Concerns Scale score correctly predicted group membership for 71% of the children in this study. Chi-square analysis results,  $\chi^2 = 34.16$ ,  $df = 1$ ,  $p < .001$ , indicate that the Behavioral Concerns Scale scores were significantly related to group membership. It should be noted that the Total Protective Factor Scale was nearly as efficient in predicting which children had emotional and behavioral problems as the Behavioral Concerns Scale (69% vs. 71%).

**Table 4.**  
*Actual and Predicted Group Membership for the Individual Prediction Criterion Validity Study*

Actual Group Membership Predicted Group Membership	Identified Sample ( <i>n</i> = 95)		Community Sample ( <i>n</i> = 86)	
	<i>n</i>	%	<i>n</i>	%
Total Protective Factors				
TPF < 40	64	67	25	29
TPF > 40	31	33	61	71
Behavioral Concerns				
BCS > 60	74	78	30	35
BCS < 60	21	22	56	65

### STUDY THREE: CONSTRUCT VALIDITY

Though the criterion validity clearly demonstrates the ability for a strength-based instrument to distinguish between healthy and unhealthy mental health outcomes, it remains unclear whether a strength-based approach is preferable to a risk-based approach for the purpose of identifying high-risk children for early prevention purposes. Construct-related validity ascertains the degree to which the assessment instrument measures the theoretical construct or trait of interest. In the case of the *DECA*, construct-related validity concerns to what extent the *DECA* scale scores truly relate to resilience versus some other characteristic of preschool children.

Protective factors have been defined as “characteristics that are thought to moderate or buffer the negative effects of stress, and result in more positive behavioral and psychological outcomes in at-risk children than would have possible in their absence” (Masten & Garmezy, 1985). Therefore, for similar levels of stress or risk, children with high protective factors as measured by the Protective Factor Scales of the *DECA* should have more positive behavioral outcomes as measured by the *DECA* Behavioral Concerns Scale. This study investigates whether the assessment instrument yields data that are consistent with predictions derived from the theory underlying the instrument.

#### Method

A commonly used approach to measuring stress and risk in children and families is to inventory the major life events that the child has experienced such as the death of a parent, homelessness, or major illness. An alternative approach to measuring stress and risk is to assess daily hassles, which are repetitive difficulties in daily living such as transportation problems, family conflict, or financial difficulties. As both approaches are valuable in determining a preschooler’s exposure to risk, both were used in this study. No preexisting measures of risk were deemed appropriate for use with a preschool population, specifically for those preschoolers living in a state of poverty. For the purpose of this study, two risk assessments were developed and standardized. The *Preschool Major Life Events Checklist* is a survey of 30 episodic and traumatic events that may have occurred during the child’s lifetime. This tool was adapted with permission from the *Life Events Checklist* (Work, Cowen, Parker, & Wyman, 1990) and the *Sources of Stress Inventory* (Chandler, 1981). The *Preschool Daily Hassles Checklist* is survey of 30 recurring minor negative experiences that are viewed as harmful or threatening to the child’s well being. These are items that may have occurred during the month preceding the rating, such as experiencing prejudice or having problems finding childcare. This tool was adapted with permission from the *Daily Hassles Scale* (Kanner, Coyne, Schaefer, & Lazarus, 1981).

Parents or caregivers completed these two checklists for 392 preschool children, ages 2-5. Approximately one quarter ( $n = 94$ ) of these children had already been identified as having significant social/emotional problems. The remaining 76% of the sample were non-identified children. This 3:1 ratio is consistent with many studies that have reported incidence rates of significant behavioral problems in preschool children ranging from 10 to 33%. The sample was quite diverse with respect to race (e.g., 26% black), ethnicity (e.g., 8% Hispanic) and socioeconomic status. Norms were generated separately for the two checklists using all 392 cases.

#### Results

Each individual checklist showed acceptable internal consistency ( $\alpha = .82$  for major events and  $.81$  for daily hassles). Each scale was able to differentiate between identified and non-identified children. Independent sample *t*-tests indicated that identified children had significantly greater risk

factors than non-identified children ( $p < .001$ ). In addition, the effect sizes were moderately small for daily hassles ( $d\text{-ratio} = .40$ ) but quite large for major life events ( $d\text{-ratio} = .98$ ). Classification accuracy was also assessed using a +1 SD decisions threshold. That is, children who received a  $T$ -score of 60 or higher were predicted to be from the identified sample. Children who received a  $T$ -score of 59 or lower were predicted to be the non-identified sample. The *Preschool Major Life Events Checklist* was superior (total classification accuracy of 79%) to the *Preschool Daily Hassles Checklist* (total accuracy of 73%).

Raw scores from both risk assessment instruments were converted to  $T$ -scores. The two  $T$ -scores were then added together for each participant. The resulting sums were then converted to a "Total Risk Index"  $T$ -score. The Total Risk Index scores were then used to assign the 181 participants in the study to a High Risk Group (Total Risk Index score greater than or equal to 60) or a Low/Average Risk Group ( $T$ -score less than 60). Similarly, participants were assigned to a Low Protective Factor Group (Total Protective Factor Scale Score  $T$ -score less than or equal to 40) or an Average/High Protective Factor Group ( $T$ -score greater than 40).

Consistent with Resilience theory, the High Risk-Low Protective group had the highest mean score ( $M = 68.2$ ). The High Risk-Average/High Protective group's mean score was 6  $T$ -score points lower ( $M = 62.3$ ). The Low/Average Risk-High Protective group had the lowest mean score ( $M = 53.8$ ), a full one a half standard deviations lower than the High Risk-Low Protective group mean. These results were examined using a two-way ANOVA (Analysis of Variance). Main effects of both Total Risk,  $F = 19.3$ ,  $df = 1,171$ ,  $p < .001$ ;  $\eta^2 = .101$ , and Total Protective Factors,  $F = 33.7$ ,  $df = 1,171$ ,  $p < .001$ ;  $\eta^2 = .165$ , were found, and there was no interaction,  $F = 2.8$ ,  $p > .05$ . These findings indicate that protective factors, as measured by the *DECA*, do indeed moderate risk. For children at both levels of risk, higher protective factors were associated with better outcomes than low protective factors. An alternative way of looking at these data is that all children with low protective factors, regardless of their risk status, tend to have elevated scores on a measure of behavior concerns. In contrast, children with Average/High protective factors tend to have elevated scores only if they are subject to high risk.

These findings provide evidence that the *DECA* does indeed measure protective factors related to resilience in young children. In addition, the higher  $F$  and  $\eta^2$  (a measure of the degree of relationship between two variables) values for protective factors indicate that it is somewhat more strongly associated with behavioral concerns than the Total Risk Index. This lends support to the idea that a strength-based assessment may be more predictive of outcome than a comprehensive inventory of risk factors in the child's life.

## DISCUSSION

The three studies presented in this paper indicate that measuring a child's strengths can provide psychometrically sound and useful information. These investigations demonstrate that the *DECA* discriminates between groups of preschoolers with and without emotional and behavior problems, that the *DECA* Total Protective Factor Scale predicts group membership as well as the *DECA* Behavioral Concerns Screener, and that the *DECA* assessment of protective factors is at least as good as a standardized assessment of risk in predicting behavioral concerns. Such findings imply that the *DECA*, or another similarly grounded strength-based assessment, can guide intervention at least as well as assessments of risk, and that assessing a child's strengths is as effective as measuring a child's pathological behaviors in identifying children with significant emotional and behavioral problems. Since, all else being equal, focusing on strengths supports a more holistic and collaborative approach to working with children at risk, this should make a strength-based assessment the tool of choice for early intervention with preschoolers.



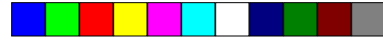
The implications of this study must be taken in context of the strengths and weakness of the study methodology. One positive attribute of this study is the degree to which the sample groups matched. Another strength of the study is the medium to large effect sizes that were found, which indicate that the assessment tool is robust and has clinical utility for individual children. This study is limited by the absence of teacher ratings. Only parents were used as raters in this experiment due to their ability to reliably report on the child's exposure to risk. In future studies, additional matching variables that have been shown to influence school success should also be included. In addition, a longitudinal study to examine the predictive validity of low and high protective factors on subsequent achievement is a necessary next step.

Since the seminal studies of Emmy Werner, professionals have recognized that protective factors in early childhood have a crucial role in determining subsequent adjustment or maladjustment to life stresses. Werner's recommendation that both assessment and diagnosis in early intervention should focus on protective factors as well as risks (Werner, 1990) has been hampered by the lack of an economical, psychometrically sound, and clinically useful measure of within-child protective factors. The *DECA* has been developed to fill this gap and thereby provide early childhood professionals with an empirically sound tool for assessing the strength of protective factors in preschoolers.

As additional high caliber strength-based assessment tools come into existence, it is expected that policy will encourage their use. The Office of Juvenile Justice and Delinquency Prevention within the United States Department of Justice has recently proclaimed that, "Although focusing on risk factors that reduce the risk of delinquency is important, examining protective factors that reduce the risk of delinquency is as important for identifying interventions that are likely to work" (Wasserman et al., 2003). Based on the belief that the primary value of assessment is to guide effective services for children, the authors of this paper encourage additional research on the validity of strength-based assessments in order to direct policy and practice.

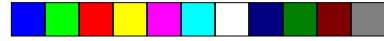
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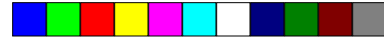
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## Personal Strengths and Assets Among Adolescents: A Comparison of Smokers and Nonsmokers

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There is limited research on the relationship between adolescent smoking and related social and psychological factors, but it is known that adolescent tobacco users are at higher risk for behavioral disorders and substance abuse. Of great interest to those who work in youth tobacco prevention is expanding knowledge about those factors that lead to tobacco use as well as about those that may buffer against its use. This study examined protective factors and personal strengths in 386 adolescents as part of a high school Tobacco Use Prevention Education (TUPE) program funded by the California Department of Education. Multivariate analysis indicated a significant relationship between gender, smoking status, and personal strengths with smokers having lower levels of personal strengths. It is suggested that cessation programs consider smoking within the context of youths' personal assets and their social support networks. School support services professionals can contribute to youth tobacco prevention efforts by attending to smoking behavior and its correlates when they are involved in assessments, consultation, or direct counseling with students.

Keywords: Adolescent, Smoking, Tobacco, Cessation, Strength-Based Assessments

Adolescent tobacco use is a major concern for parents, youth-serving professionals, lawmakers, and public health officials. Cigarette smoking is "the most important source of preventable morbidity and premature mortality worldwide" (American Lung Association, 2002). Health concerns and other negative developmental outcomes associated with tobacco use among adolescents have been widely researched, but there has been limited research on the relationship between smoking and personal, social, and psychological factors. Tobacco (nicotine) is a "gateway drug" used by adolescents (Hallfors & Van Dorn, 2002) because it is easily accessible, inexpensive, and introduces youths to substance use influences. In addition, adolescence is a period of experimentation, when tobacco use may be attractive due to the influences of peers, family, and the public media.

Youths experimenting with tobacco increase their chances of becoming regular users (Trinidad & Johnson, 2002). Recent research shows that nicotine addiction for adolescents is different than for adults—adolescents can become addicted to nicotine in as little as 21 days from the onset of use (typically within six months; DiFranza et al., 2002). Given the prevalence of tobacco use among youths, school psychologists need to be knowledgeable of tobacco use trends and prevention efforts.

Of recent interest to those who work in youth tobacco prevention is to expand knowledge about those factors that lead to tobacco use as well as those that may buffer youths against its use. To expand knowledge in this area, this article presents information about (a) tobacco use patterns, (b) its correlates, and then (c) presents the results of a study that examines the personal strengths and assets of smokers and nonsmokers. This is an initial step to explore the potential of using personal strengths to individualize smoking prevention and intervention programs. It is hoped that the information gathered

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from this study will assist school psychologists and educational professionals to be better understand the developmental complexities (i.e., internal and external factors) associated with adolescent tobacco use and how to intervene and prevent its use drawing on a strength-base perspective.

### **Tobacco Use Patterns**

Tobacco smoke is dangerous at all ages, causing a variety of health risks, such as cardiovascular, carcinogenic, pulmonary, and teratogenic effects, regardless of the type of tobacco used. The earlier the onset of tobacco use, the more severe nicotine addiction becomes (Breslau & Peterson, 1996; Taioli & Wynder, 1991). There are two types of tobacco products: cigarettes or cigars and smokeless tobacco.

*Cigarettes.* Cigarettes and cigars are forms of tobacco that are widely advertised; these advertisements present smoking as sophisticated and stylish. In a longitudinal study, Pierce, Choi, Gilpin, Farkas, and Berry (1998) examined whether tobacco advertising and promotion increase the likelihood of smoking in 1,752 California youths. These adolescents were 12 to 17 years-old at baseline. Results indicated that more than half the sample named a favorite cigarette advertisement in 1993—Joe Camel advertisements were the most popular. At baseline, less than 5% possessed a personal tobacco promotional item, but an additional 10% indicated that they were willing to use such an item. Although having a favorite advertisement in 1993 predicted which adolescents would progress toward smoking by 1996, possession or willingness to use a promotional item was even more strongly associated with future progression. The study estimated that 34% of all experimentation in California youths between 1993 and 1996 could be attributed to tobacco promotional activities.

*Smokeless tobacco.* Smokeless tobacco is another form of tobacco use that is not extensively discussed, although it is just as addictive and harmful as cigarette smoking. Unfortunately, a growing number of young people are using chewing or smokeless tobacco as an alternative to cigarettes. There are about three million people (under age 21) who use smokeless tobacco regularly (American Academy of Pediatrics, 2002). There are two major types of smokeless tobacco: snuff and chewing tobacco. Snuff is a finely ground or shredded form of tobacco. Users put a pinch of snuff between the lower lip or cheek and the gum. Chewing tobacco is more coarsely cut and also placed in the cheek pouch. Smokeless tobacco is absorbed into the blood through the oral mucosa and the gastrointestinal track. More chemicals enter the body through smokeless tobacco than smoking cigarettes because it is held in the mouth for minutes at a time. Like cigarettes, smokeless tobacco contains nicotine and can cause cancer and a number of non-cancerous oral conditions. Smokeless tobacco users are more likely than nonusers to become cigarette smokers. Studies have reported that nicotine levels in smokeless tobacco have been intentionally manipulated by manufacturers to lure underage users (Connolly, 1995; Djordjevic, Hoffman, Glynn, & Connolly, 1995; Tomar, Giovino, & Ericksen, 1995).

*Prevalence of adolescent cigarette smoking.* There is no single definitive source of information about adolescent cigarette smoking trends. The rates of tobacco use appear to vary as a function of the manner in which data are collected and the specific item used (it is common to ask in some form about life, 6-month, or 30-day smoking patterns). In addition, cigarette smoking has been found to vary by region of the country and by racial and ethnic background (Baezconde-Garbanati, 2002; Gardner, 2002). Consequently, the global national adolescent cigarette smoking incidence rates have limited relevance across states. Despite this caution, several national databases provide information about youth tobacco use.

The American Lung Association (2002) reports that the most frequently used tobacco products by adolescents are cigarettes (28%); cigars (14%); kreteks or clove cigarettes (4%); a cigarette made of fine tobaccos and clove spice); bidis (4%); thin unfiltered cigarettes that are wrapped in brown leaves

and tied with a short length of thread, and come in different flavors, including strawberry, chocolate, almond, and root beer); and tobacco in pipes (3%). According to the national PRIDE Surveys (2002), in 2001 the rates of past year cigarette smoking were: 29% of ninth graders, 34% of tenth graders, 38% of eleventh graders, and 41% of the twelfth graders. Since 1996-1997, adolescent tobacco use across all age groups declined from 50% to 35% (PRIDE Surveys).

With the high priority given to tobacco prevention in California, there are several high-quality sources of information about tobacco use by adolescents. The California Attorney General's Office and the California Department of Education sponsor the biennial California Student Survey (CSS), which uses a random sample of students (Skager & Austin, 2001). This survey reports that the incidence of any cigarette use in the past 30-days among California ninth graders is consistently lower than comparable national trends taken from the Centers for Disease Control's Youth Risk Behavior Surveillance Survey (YRBS). For example, in 1995, 28% of California ninth graders used cigarettes vs. 31% of ninth graders nationally; in 1997, 29% vs. 33%, and most dramatically in 1999, 12% vs. 27%. In the 1999 CSS, current (30-day) cigarette use by eleventh (21%) graders was also much lower than the rates found in comparable national surveys (YRBS and Monitoring the Future; see Skager & Austin, 2001). Between 1991 and 1999, cigarette use among California secondary students showed sizable decreases—61% for seventh graders, 50% for ninth graders, and 25% for eleventh graders (Skager & Austin, 2001). The good news in tobacco prevention is that substantial progress is being made to reduce smoking among California's youth. Nonetheless, it remains the single most preventable source of long-term morbidity and its use is associated with various other unfavorable developmental outcomes. Thus, there is a need to be aware of various risk factors associated with adolescent smoking.

### Tobacco Use Correlates

Adolescents experiment with tobacco for a variety of reasons; thus, it is important to understand the association between tobacco use and other harmful behaviors. Beyond curiosity and experimentation a number of risk factors predict adolescent tobacco use.

*Psychosocial risk factors associated with adolescent smoking.* Several studies have found differences in the psychosocial characteristics of nonsmokers and smokers (Ellickson, Tucker, & Klein, 2001; Hallfors & Van Dorn, 2002; Tomori, Zalar, Plesnicar, Zihlerl, & Sterger, 2001). Behavioral risks found to be more common among smokers include the use of alcohol and drugs and suicide attempts. Conduct disorders, school truancy, non-involvement in extracurricular activities, and poor academic performance are also more prevalent in smokers than nonsmokers. Students who report being truant and having low grades were five times more likely to be involved in tobacco and drug use. Smoking was found to be associated with eating disorders in girls only (Tomori et al., 2001) and as a means of weight control (Wagner & Atkins, 1999). Also, compared to girls who do not smoke, girls who smoked were more likely to have experienced physical and sexual abuse. Early smokers are at greater risk for pregnancy and parenthood at a young age. Additionally, adolescent smoking is more frequent in families with high levels of conflict and inconsistent parental support and guidance (Hallfors & Van Dorn, 2002). Smoking rates are highest among "white" adolescents and those whose parents are reported to abuse alcohol (Burns, Major, Vaughn, Anderson, & Shanks, 2002; Hallfors & Van Dorn). And, finally, the use of smokeless tobacco at school has been found to be the strongest predictor of school weapon possession in a study using the national Youth Risk Behavior Surveillance Survey (Furlong, Bates, Sharkey, & Smith, 2004).

*Social context of adolescent smoking.* Alternatively, some youths smoke for social reasons (i.e., they are exposed to it at parties or informal social gatherings) and others because of social influences

(Jessor, 1984; Lloyd-Richardson, Papandonatos, Kazura, Stanton, & Niaura, 2002). For example, if a student feels alienated from school and hangs out off campus, this student is more likely to be exposed to smoking peers and consequently to experiment with tobacco. Also, adolescents may choose to smoke as a means of conveying an image of toughness to peers and to convey a social status associated with the transition to adulthood (Entwisle, Alexander, & Olson, 2002).

Modeling behaviors are also an issue when discussing adolescent smoking. Youths may smoke because of the influence of their friends or family members. Lloyd-Richardson and colleagues (2002), in a national sample of 20,747 adolescents, found that peer smoking was the strongest predictor of smoking progression. The authors also found that students who had at least two smoking peers were about six times more likely to transition from experimentation to becoming regular smokers. Tomari and colleagues (2001) cite several studies showing that peer influence is a decisive factor in adolescent tobacco use. In one study, by late adolescence, chronic smokers report having essentially no non-smoking close friends (Lloyd-Richardson et al., 2002).

*Emotional disorders associated with adolescent smoking.* More recently, researchers have examined smoking and short-term, immediate developmental and psychological risks such as depression and attention deficit hyperactivity disorder. These relationships emphasize the importance of school psychologists to attend to the presence and influences of smoking on adolescents.

Several studies have documented a relationship between depression and smoking (Brown, Lewinsohn, Seeley, & Wagner, 1996; Escobedo, Reddy, & Giovino, 1998), with smokers having higher levels of depressive symptoms than nonsmokers. Escobedo and colleagues postulated that initiation of smoking may occur more rapidly in adolescents who are depressed or are experiencing stressful situations. Byrne and Mazanov (2001) found that females experience more adolescent-related stress and showed lower levels of self-esteem than boys. However, Brown et al. (1996) did not find gender to influence the relationship between psychopathology and tobacco use in their epidemiological study of a community-based sample of 14 to 18 year-old adolescents. Despite some studies finding a depression-smoking link, it is unclear whether smoking precedes depression and/or exacerbates it, or if youth who are depressed are more likely to experiment with smoking and subsequently becomes addicted to nicotine. However, a recent prospective study by Wu and Anthony (1999) found that depression did not increase the risk of smoking, but that smoking exacerbated depressive symptoms.

Youths with ADHD have also been found to be at increased risk for smoking as they transition through adolescence into adulthood (Whalen, Jamner, Hender, Delfino, & Lozano, 2002). It has been suggested that smoking is a form of "self-medication" for those with ADHD symptoms (Tercyak, Lerman, & Audrain, 2002). Stimulation from nicotine, a central nervous stimulant, compensates for low levels of attention, arousal, and concentration in smokers with ADHD (Conners et al., 1996). Tercyak and colleagues examined the association of ADHD with cigarette smoking in a community sample of adolescents. Results suggest that adolescents with clinically significant inattention were three times more likely than "ever smokers" (even one cigarette over their lifetime) to experiment with smoking and be current smokers.

Milberger, Biederman, Faraone, Chen, and Jones (1997) in a four-year prospective study, found that ADHD predicted early onset of cigarette smoking, particularly co-morbid with other disorders (e.g., conduct disorder, major depression, and anxiety disorders). In a longitudinal study, Lambert and Hartsough (1998) examined the development of tobacco use among ADHD and non-ADHD participants. They found that ADHD is a contributing factor in adolescent and adult tobacco use. The association between ADHD and smoking suggests that prevention programs may need to be tailored to meet the needs of adolescents with ADHD. For example, utilizing one-on-one interventions rather than groups, or computerized cessation programs rather than printed materials (Tercyak et al., 2002).



### Foundations of Strength-Based Assessments

A shift in youth assessment is beginning to take place. Instead of focusing primarily on reducing risk factors for negative developmental outcomes such as smoking, increased attention is being given to building youth resilience. “Resiliency is the ability of youth to overcome obstacles, to meet the new social demands of adolescence, and to build the competencies necessary for success as adults” (California Adolescent Health Collaborative, 2001, p. 13). With appropriate school-based assessments and prevention programs, adolescents may benefit from relationships and opportunities enabling them to move successfully into adulthood (California Adolescent Health Collaborative, 2001).

Many traditional assessments and programs typically observe, label, and describe children and adolescents as having deficits, problems, and pathologies, while ignoring positive potentials (Epstein, Rudolph, & Epstein, 2000). Positive traits (personal characteristics) that are overlooked in many assessments may be critical factors in overcoming problematic behaviors, such as nicotine addiction. In other words, youths’ internal personal characteristics and access to positive social supports can influence their developmental outcomes. For example, if a youth believes that those in his or her social support network care for them, then they may be more motivated to choose appropriate behaviors. Contrary to youths’ social network as a positive support system, smoking peers and family members may negatively influence youths to use tobacco. Lloyd-Richardson and colleagues (2002) found that parental smoking was positively correlated with the smoking frequency. However, social networks may also be positive influences in buffering youths from tobacco use. Lloyd-Richardson and colleagues (2002) also reported that school connectedness and family connectedness decreases the odds of smoking initiation and experimentation.

The use of strength-based assessments has recently received support in the fields of education, mental health, family services, and other social services (Epstein et al., 2000; Rhee, Furlong, Turner, & Harari, 2001). Strength-based assessments measure emotional and behavioral skills, competencies, and characteristics that (a) create a sense of personal accomplishment; (b) contribute to satisfying relationships with family members, peers, and adults; (c) enhance one’s ability to deal with adversity and stress; and (d) promote one’s personal, social, and academic development (Epstein & Sharma, 1998). Increased awareness of strength-based principles would seem to have the potential to improve psychoeducational assessments (Rhee et al., 2001), such as those supporting school-based, tobacco prevention-cessation programs.

### Purpose of the Current Study

This study sought to expand knowledge about those factors that influence tobacco use as well as those that may buffer against its use. Information about multiple risks in combination with low assets would help school psychologists to better understand the complexities of working with youths who smoke and their need for specialized interventions. It was hypothesized that on a measure of personal strengths and assets (a) smokers would have fewer positive personal assets and strengths than non-smokers would and (b) females would have more personal assets and strengths than males. Previous research did not provide a clear basis for making a hypothesis about a possible interaction between gender and smoking status; therefore, we elected to test the null hypothesis that there was no interaction.

## METHOD

This study was part of the local evaluation of a district TUPE (Tobacco Use Prevention Education) program conducted in collaboration with University of California, Santa Barbara. These projects

examined risk and health-related behaviors, including drug, alcohol, tobacco use, resilience, and perception of school violence.

### Participants

The original sample included 419 students attending a comprehensive high school located in the central coast region of California. A total of 386 students provided useable data; that is, these students did not have an excessive amount of missing data and completed both surveys used in this study. The group included 194 males (50%) and 192 females (49%). Three hundred and fifty-nine were 9<sup>th</sup> graders (93%), 17 were 10<sup>th</sup> graders (4%), 6 were 11<sup>th</sup> graders (2%), and 4 were 12<sup>th</sup> graders (1%). Demographic information, such as ethnicity and age were not gathered, although the overall school demographic information is available from the California Department of Education Academic Performance Index (API) Base Report. According to the API (2001), students at this school were from a middle-class community. The school ranks 9 on a scale of 1 to 10, where 1 is the lowest. The students are mainly of Caucasian descent (87%) and other ethnic cultures (13%).

### Measures

*Behavior and Emotional Rating Scale (BERS)*. The BERS was utilized to identify behaviors and emotional strengths. The BERS was developed by Epstein and Sharma (1998) and is composed of 52 items rated on a four-point scale (1 = not at all like me; 2 = not much like me; 3 = like me; 4 = very much like me). It assesses five areas of children's personal strengths: (a) *Interpersonal Strength* (14 items, assesses a child's ability to control his or her behaviors and emotions in social situations); (b) *Involvement with Family* (10 items, measures a child's involvement and relationship with family members); (c) *Intrapersonal Strength* (11 items, assesses a child's perceptions of their abilities); (d) *School Functioning* (9 items, examines the consistency and competency of a child to complete school tasks); and (e) *Affective Strength* (7 items, assesses a child's abilities to accept affect from others and communicates feelings to others).

The coefficient alphas indicate strong internal consistency with all subscale coefficients above .80 and three above .90. Content validity was examined using research literature on behavioral and emotional skills, strength-based assessment, developmental psychopathology, resilience, and protective factors. Discriminant validity data indicate that the BERS differentiates between children with differing known levels of strength (i.e., children without disabilities, children with learning disabilities, and children with emotional and behavioral problems). Inter-rater and retest reliability indicated moderate to high correlations across all subscales (.83 to .98). Additionally, when stability was examined over a six-month period, correlations were moderate to high across all subscales (above .80 and three were above .90; Epstein, Hertzog, & Reid, 2001; Harniss, Epstein, Ryser, & Pearson, 1999).

*Tobacco Use Prevention Education Survey (TUPES)*. TUPES was modified from the California Student Survey (Skager & Austin, 2001) and has been used as a local evaluation tool by district TUPE coordinators (Furlong & Jimerson, 1999) in the central coast region of California. TUPES asks about health-related behaviors and attitudes relating to tobacco use among adolescents (e.g., student's motivation toward quitting). Included are items pertaining to programs available to students in the participating district. For the purposes of this study, tobacco use was assessed by an item that asked about the frequency of cigarette smoking within the past 30 days, following the smoking categories derived from Lloyd-Richardson et al. (2002). The TUPES item was: "In the past 30 days, how many cigarettes have you smoked?" The response options were: (a) I do not smoke, (b) one or a few, (c) 1-2 per day, (d) 7-19 per day, (e) 20 or more per days. *Nonsmokers* were defined as those youths who had smoked no

cigarettes in the past 30 days; *intermittent* smokers were those students who indicated that they had smoked one or a few cigarettes in the past month; and *regular* smokers were those youths who smoked one or more cigarettes per day in the past month (i.e., daily smokers).

#### Note on Definitions of Smokers and Nonsmokers

As school psychologists attend to and assess the smoking behavior of the students with whom they work, they will need to consider the various ways to define this behavior. There is no single, universally accepted definition of when a student has become a “smoker.” Brown et al. (1996) defined “smokers” as those who smoke cigarettes three or more times per week and “nonsmokers” were defined as those who smoked two or fewer times per week. Ellickson et al. (2001) defined smoking into three categories: “nonsmokers” (never smoked); “experimenters” (have tried cigarettes, but fewer than three times in the past year and not in the past 30 days); and “smokers” (smoked three or more times in the past year or any use in the past 30 days). Lloyd-Richardson et al. (2002) stringently defined smoking into five categories based on frequency and recency: “never smokers” (never tried a puff or two of cigarettes); “experimental smokers” (tried cigarettes, but denied smoking within the past 30 days or ever smoking regularly); “intermittent smokers” (smoking between 1 and 29 cigarettes in past 30 days); “regular smokers” (smoked regularly in past 30 days); and “ex-smokers” (have quit smoking, but have smoked regularly in the past and have not smoked in past 30 days).

Awareness of the differing smoking categories is important in order to assess research and program evaluation outcomes. Practically, it points to an interest among researchers in how adolescents move from having never smoked a cigarette to habitual use indicative of nicotine addiction. For school psychologists, this points to the need to be aware of smoking not as strictly a categorical behavior, but as a developmental process that occurs within social contexts, one that can accelerate rapidly once it begins. As efforts to reduce cigarette use by adolescents continue to realize gains, there is increased interest to better understand how to implement more powerful cessation programs for those youths who are at the early stages of experimentation as well as for those who are most addicted to nicotine.

#### Procedure

Classroom teachers under the direction of the school counselor (TUPE coordinator) administered surveys in Winter 2002. All students in the freshman health class who were in attendance at school on that particular day anonymously completed the surveys (non-ninth graders were taking the class to fulfill graduation requirements). The two measures used in this study were stapled together so that responses could be matched to the same participant while retaining anonymity. The questionnaires were developed in a machine-readable format using the Teleform software package. Prior to analysis, the responses were examined by research assistants for marking errors and ambiguities (i.e., bubbles that were not completely filled in were darkened or markings outside of the bubble were corrected). If an item had two marked responses it was considered missing data. After carefully examining the surveys, they were scanned and verified using the Teleform software package. The data were then automatically sent into an SPSS file.

In reviewing these data, extreme outliers were excluded, for example, participants who marked all 1's or 4's, an obvious invalidity indicator. Additionally, surveys were excluded if there was no way to match both the BERS and TUPES. Students who did not complete both surveys were excluded from the analysis. For surveys that had a minimal amount of missing data (no more than 3 items), these values were substituted with the overall sample mean (Switzer & Roth, 2002).

## RESULTS

Frequencies were generated to describe the study population in terms of gender, smoking status, and the BERS subscales. Raw scores from the BERS measure were used in the statistical analysis. A multivariate analysis of variance was performed to test the relationships among gender, smoking status, and the BERS subscales.

### Smoking Status of Sample

The final sample yielded 321 nonsmokers (83%), 34 intermittent smokers (8%), and 31 regular smokers (8%). Table 1 shows the gender by smoking status. There were almost equal numbers of male and female nonsmokers and regular smokers; although, more females than males were intermittent smokers. In comparison to the most recent California tobacco use incidence data, there were more current smokers in this study's sample (16%) than among ninth graders in California (12%, Skager & Austin, 2001).

### Multivariate Analysis

A 2 (gender) by 3 (smoking status) by 5 (BERS subscales) multivariate analysis of variance (MANOVA) was conducted with repeated measures on the BERS subscales. Significant main effects were found for both gender,  $F(5, 376) = 3.79, p = .002, \eta^2 = .048$ , and for smoking status,  $F(10, 752) = 4.62, p = .000, \eta^2 = .058$ . There was a nonsignificant multivariate interaction between smoking status and gender,  $F(10, 752) = 1.12, p = .341, \eta^2 = .015$ . consequently the discussion that follows focuses on the two significant main effects.

### Main Effect Findings

The follow-up univariate analyses found significant differences for gender across all five BERS subscales (see Table 2). An examination of the group means showed that females obtained higher scores than males on all BERS subscales. It further showed that both males and females tended to rate their personal strengths in the positive direction; that is, the norm is for youths to have positive perceptions of their personal strengths.

Of particular interest in this study, the univariate ANOVAs revealed that the three smoking groups rated themselves differently on four of the five BERS subscales: Interpersonal Strength (InterS),  $F(2, 385) = 8.68, p = .0001, \eta^2 = .044$ ; Family Involvement (FI),  $F(2, 385) = 14.55, p = .0001, \eta^2 = .071$ ;

**Table 1.**  
*Comparison of Nonsmokers, Intermittent smokers, and Regular Smokers by Gender*

	Females		Males		Total <i>N</i>
	<i>n</i>	%	<i>n</i>	%	
Nonsmokers	154	80	167	86	321
Intermittent smokers	23	12	11	5	34
Regular smokers	15	7	16	8	31
Total	192	49	194	50	386

Intrapersonal Strength (IntraS),  $F(2, 385) = 8.62, p = .0001, \eta^2 = .043$ ; and School Functioning (SF),  $F(2, 385) = 13.94, p = .0001, \eta^2 = .068$  (see Table 3). There was no significant difference by smoking status for the Affective Strength (AS) subscale,  $F(2, 385) = 1.52, p = .221, \eta^2 = .008$ . An examination of the post-hoc comparisons (Tukey's HSD, see Table 3) showed that the regular smokers had significantly lower scores than the nonsmokers on all subscales except Affective Strength and the intermittent smokers had lower scores than the nonsmokers on FI and SF.

Post-hoc comparisons were performed to investigate group differences between the smoking groups in each BERS subscale. Group mean differences revealed that the nonsmokers rated themselves significantly different than the intermittent and regular smokers in social contexts (i.e., Family Involvement and School Functioning). Results may suggest that youths who smoke are less engaged and involved with family and school settings. Also, significant differences were revealed between non-

**Table 2.**  
*Univariate ANOVA for Gender—Subscale Comparison of Means, Standard Deviations,  $t$ -values, and Significance Values for Males and Females*

BERS Subscale	Male ( $n = 194$ )		Female ( $n = 192$ )		$t$	$p$
	$M$	$SD$	$M$	$SD$		
Interpersonal Strength	44.64	7.68	47.81	6.76	-4.30	.001
Family Involvement	29.00	6.00	30.33	6.24	-2.14	.033
Intrapersonal Strength	35.15	5.41	36.88	5.42	-3.13	.002
School Functioning	26.79	5.19	28.48	4.58	-3.40	.001
Affective Strength	21.25	4.13	23.83	3.36	-6.75	.001

*Note.* Degrees of freedom (384).

**Table 3.**  
*Univariate ANOVAs for BERS Subscales by Smoking Status*

BERS Subscale	Nonsmokers		Intermittent		Regular		$F$	$p$	<i>post-hoc</i>
	$M$	$SD$	$M$	$SD$	$M$	$SD$			
Interpersonal Strength	46.89	7.01	44.00	7.00	41.77	9.65	8.73	.0001	N > I > R
Family Involvement	30.36	5.79	27.56	6.00	24.71	7.27	15.14	.0001	N > I, R
Intrapersonal Strength	36.48	5.31	34.74	4.62	32.61	6.76	8.34	.0001	N > I > R
School Functioning	28.17	4.74	25.94	4.41	23.87	5.86	13.62	.0001	N > I, R
Affective Strength	22.62	3.99	22.76	2.81	21.39	4.77	1.42	.2420	————

*Note.* Degrees of freedom (2, 385); N = Nonsmoker, I = Intermittent smoker, and R = Regular smoker.

smokers and regular smokers in social skills (i.e., Interpersonal Strength and Intrapersonal Strength). This may suggest that smokers view themselves as having lower social skills and as being more narrowly socially engaged:

1. *Social Skills Comparisons*

Interpersonal subscale: nonsmokers/regular smokers,  $M$  diff 5.10,  $p = .001$ ,

Intrapersonal subscale: nonsmokers/regular smokers,  $M$  diff 3.86,  $p = .001$ ;

2. *Social Context Comparisons*

Family Involvement subscale, nonsmokers/intermittent smokers,  $M$  diff 2.80,  $p = .024$ ,  
and nonsmokers/regular-smokers,  $M$  diff 5.65,  $p = .001$ ;

School Functioning subscale, nonsmokers/intermittent smokers,  $M$  diff 2.23,  $p = .027$ ,  
and nonsmokers/regular smokers,  $M$  diff = 4.30,  $p = .001$ .

## DISCUSSION

In this study to extend research on adolescent tobacco use, the goals were to explore factors associated with tobacco use as well as those that may potentially buffer against its use. Additionally, the information gathered was intended to help school psychologists and other educational professionals better understand the complexities of the combination of multiple risks and low assets when working with youths. The findings revealed that there were more female intermittent smokers than males in this sample, although there were about equal numbers of male and female regular smokers. This is consistent with other research with California adolescents showing that female smoking rates are now about the same or higher than those of males (Burns et al., 2002; Furlong, Bates, Casas, DeVera, & Soliz, 2002). The multivariate analysis of variance indicated a main effect for smoking status and gender. Consistent with study hypotheses, it was found that (a) youths who smoked reported lower levels of positive personal assets and strengths on the BERS compared to the nonsmokers and (b) the most frequent smokers had the lowest BERS scores overall. Although not interacting with smoking status, females had higher positive personal assets and strength scores than males.

### Personal Assets and Tobacco Use

Research has not intensively examined the role that personal assets play in tobacco use. For example, it is possible that personal strengths as assessed by the BERS, may act to prevent early experimentation (e.g., a child early on identifies as being a “nonsmoker”) or buffer a youth against chronic use if she or he engages in early experimentation (e.g., a child tries a cigarette or two and decides that this is not a smart thing to do or those in her or his social context convey anti-tobacco messages to them). One possibility that may have the greatest implications for school-based cessation efforts is that personal strengths may be resources that can be used to support a youth’s efforts to quit smoking. Such an approach is supported by other research (Atkins, Oman, Vesely, Aspy, & McLeroy, 2002). Some protective factors that have been shown to decrease adolescent tobacco use are involvement in extracurricular activities (e.g., sports) and a general healthy lifestyle. Parental involvement is a crucial factor in a child’s smoking behavior. For example, when parents communicate to their children about the negative effects of smoking and encourage them to participate in after-school activities, then they may be less likely to be exposed to social situations in which tobacco is available and used. These findings suggest that disengagement from family and school are associated with the early stages of smoking behavior and that efforts to support school and family connection may help to deflect longer-term cigarette smoking, a pattern found in a previous study (Topolski, Patrick, Edwards, Huebner, Connell, & Mount, 2001). Such a pattern suggests that any efforts to support school engagement of students could indirectly alter their developmental course away from tobacco use circumstances.

The regular smokers in this study were the most disengaged from family and school, but in addition, they reported having less positive interpersonal and intrapersonal skills. This is consistent with the findings of Griffin, Epstein, Botvin, and Spoth (2001) that social competence is a protective factor against smoking behavior. Future longitudinal research can help to clarify these findings, which suggest that youths who are socially disengaged are vulnerable to initiate smoking, and then may progress to nicotine addiction. Consequently, their relationship skills become relatively weak compared to nonsmokers. In addition, smokers then engage in more risk behaviors than nonsmokers (Furlong et al., 2002). Given such a developmental pattern, school-based smoking cessation efforts should target youths who are not only regular users, but also experimenters (i.e., tried in the past, but not currently smoking or occasionally smoking). Furthermore, efforts should continue to be made to educate all youths and their families, not waiting until and cessation intervention is required.

Finally, several studies have suggested that smoking can be interpreted as an attempt to manage psychosocial problems or as an escape route to self-medicate their problems (Brown et al., 1996; Escobedo et al., 1998; Tomari et al., 2001). This suggests that at least some of the students in this study who were disengaged from family and school and had low personal strength, smoke as a means of coping with life difficulties. In addition, smoking may increase the possibility of dysfunctional personal development, where stress factors reinforce negative behaviors (Brown et al., 1996; Escobedo et al., 1998). For example, smokers may be more defiant than nonsmokers, thus increasing family conflicts and educational problems. Interestingly, some youths who are at high risk for smoking do not smoke. Better understanding of this group may help researchers point to factors that buffer or protect them from habitual smoking. The results of the current study support a resilience model in which internal personal strengths and social supports that encourage nonuse have protective influences against smoking (Atkins et al., 2002). This suggests that school psychologist can consider youth smoking as evolving out of their limited school and family engagement, not just antisocial behavior. This can potentially shift the focus from treating smoking as a disciplinary infraction to efforts to improve student school engagement by drawing on their skills, strengths, interests, and social supports.

### Limitations and Future Directions

The findings from this study must be considered in light of some limitations. As noted earlier, definitions of cigarette smoking is inconsistent in the research literature. Thus, these results generalize only to other studies that used a similar cigarettes use definition. However, the definition used in the current study is consistent with other research studies (e.g., Lloyd-Richardson et al., 2002) and is categorically defined according to frequency and intensity of use. In addition, since smokeless tobacco is also addictive and just as harmful, it would be relevant to examine this type of use concurrently with cigarette use or examined independently and compared to cigarette use. Future research should examine smokeless tobacco use because this type of tobacco use is rising among adolescents and the consequences are just as harmful.

It is also important to note that the present study relied on self-report measures by youths to assess smoking behaviors and personal attributes. Although questionnaires were anonymous, there is no guarantee that the responses provided were accurate and there is always a chance of youths minimizing perceived negative behaviors. In addition, some responses were found to have not been reliable (e.g., marking all extreme responses) and excluded from the analysis; this raises questions about the validity for other responses that may have had less obvious response sets. Caution must also be used in generalizing results from the present study to other populations and students from other communities. The sample population was predominantly white, middle-class students. Future studies could examine youth



tobacco use from various populations and communities for comparison purposes, although tobacco use is higher among white youths.

Despite these qualifications, the results of this study are both noteworthy and relevant for school psychologists and other educational professionals in youth tobacco cessation efforts. This study extended research on youth smoking, particularly in identifying personal strengths and attributes of adolescent smokers as a factor contributing to the success of smoking prevention and intervention programs.

### **Getting Involved in Tobacco Prevention Efforts**

With recent research pointing to rapid onset nicotine addiction among adolescents (DiFranza et al., 2002) and smoking's association with multiple negative developmental outcomes, school psychologist should attend closely to any smoking behavior among youth. Of particular interest to them will be assessments that help to evaluate behaviors associated with the degree of nicotine addiction (e.g., the time when the first cigarettes is smoked each day and the perceived need to smoke during school hours), not just the frequency of smoking, among adolescents (see O'Loughlin, Kishchuk, DiFranza, Tremblay, & Paradis, 2002).

School-based cessation programs, as represented by the TUPE initiative in California, offer youths a convenient place to engage in tobacco use cessation interventions. The results of this study and others suggest, however, that these same youths typically leave school and immediately associate with peers who smoke and thereby expose them to second-hand smoke. Therefore, current cessation programs are not permanent solutions to youth smoking behaviors. It is necessary to assess the social context of smoking and personal assets of youths to improve the success rate of school-based smoking cessation programs. Knowing what a youth does well, is interested in, and how they see themselves in positive ways, may provide the context to explore alternative social outlets and strategies for how to cope with nicotine cravings. Such a focus offers school psychologists a way to increase their support of tobacco prevention and cessation efforts on their school campuses.

California provides various resources in the areas of tobacco use research and prevention that offer school psychologists the opportunity to support positive health promotion efforts; these include:

1. Proposition 99, which was approved by California voters in 1988, added an additional 25 cent tax to each pack of cigarettes, and has made an average of \$74 million available each year to California's Tobacco Control Program. This program implemented a major statewide antismoking media campaign beginning in the early 1990s.

2. California's Tobacco Control Program allocates funding to the California Department of Education for school-based Tobacco-Use Prevention Education (TUPE) programs, locally designed for students in grades 4 through 12 (see the web site for the California Department of Education, [www.cde.ca.gov](http://www.cde.ca.gov)).

3. In 1994, California's Tobacco Control Program developed the Operation Storefront campaign to stem the proliferation of tobacco advertising and promotion in communities.

4. The STAKE (Stop Tobacco Access to Kids Enforcement) Act prohibits the sale of or furnishing of tobacco to anyone under 18, requires retailers to check ID of anyone under 18 and post warning signs at sales counters, and authorizes \$6,000 fines for violations.

5. Title IV-Safe and Drug-free Schools (SADFS) and Communities provides funding for age-appropriate drug and violence prevention and education programs for all K-12 students through linkages between schools and communities (contact your district or county SADFS coordinator for additional information).

6. The California Mentoring Initiative (CMI), through the California Department of Alcohol and Drug Programs (ADP) was initiated in 1995 in partnership with many community-based organizations to reduce four major problem areas: alcohol/drug use, teen pregnancy, educational failure, and gangs and violence.

7. The California Friday Night Live (FNL) Program, funded by ADP, was established in 1984 to promote a teenage lifestyle free of alcohol and other drugs. FNL's mission is to build partnerships for positive and healthy youth development, which engage youth as active leaders and resources in their communities.

8. Club Live is a prevention program aimed at middle school students in California and is an extension of the successful FNL program. It assists students in developing alternatives to using alcohol, tobacco, and other drugs.

9. TEENWORK, INC. is a private agency working to provide a forum for youth to share ideas and discuss solutions to the critical issues facing teens today. Since 1984, California high school students spend seven months planning a training institute that focuses on substance use prevention and includes broader issues such as pregnancy, gangs, suicide, HIV/AIDS, and recovery (California Adolescent Health Collaborative, 2001).

### Implications for School Psychologists

The results of this study show that youth tobacco users' personal and social assets differ from those of non-smokers in ways that provide opportunities for school psychologists to become involved in prevention and intervention efforts. Knowing that youths who smoke are not as well engaged in school and may be overly involved in social contexts that support smoking, emphasize the importance of the interpersonal aspects of smoking behavior. School psychologist training standards clearly emphasize the roles of school psychologist in wellness promotion. The strong links between psychological well-being, the development of personal-social strengths, and the formation of positive health habits place tobacco education and cessation efforts squarely within school psychologists' service role. Tobacco use is an obvious student behavior with multiple known negative short- and long-term development consequences—any other behavior with such known association would be a prevention priority for educators. School psychologist can support tobacco prevention and cessation efforts by inquiring about tobacco use in their assessments and by supporting the availability of cessation options in the school and local community.

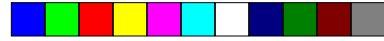
It is hoped that the results obtained from this study will assist school psychologist and educational professionals to better understand those factors that increase the risk of adolescent smoking and those that may buffer them from its use. The tobacco prevention efforts in California's schools are producing results. Addressing the influences of youth personal strengths on the process of the uptake and habitual use of cigarettes may contribute to a continued reduction in underage tobacco use. These possibilities will, of course, need to be enhanced by future longitudinal studies that assess the BERS and other strength-based instruments in developmental contexts juxtaposed with smoking behavior.

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## **From Deficits to Development: A Case Study of the Journey of Friday Night Live**

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In 1996, the Youth Leadership Institute (a youth development institute) and California Friday Night Live Partnership (a statewide prevention program serving over 800,000 young people) undertook a major challenge: to come together as partners in an effort to bridge youth development research and practice. With guidance and strategic support from Youth Leadership Institute, California Friday Night Live Partnership set out to transform its statewide network of local prevention programs by shifting from a problem, or deficit, orientation to an approach that links effective and innovative prevention strategies with positive youth development research and “best practice.” This article describes the research that informed the shift and the collaboration that brought it about. Additionally, it presents data regarding the youth participants’ perceptions of the joint program. Results indicate that youth participants experience many of the supports and opportunities that research has linked to positive developmental outcomes.

Key Words: Evaluation, Youth Programs, Youth Development

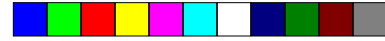
Friday Night Live (FNL) was established in 1984 by the California Department of Alcohol and Drug Programs (ADP) and the Office of Traffic Safety. Created as a pilot program in a single county, FNL initially was designed to reduce deaths and injuries caused by teens driving under the influence of alcohol and other drugs. Based on the program’s early success, in 1988 ADP began expanding FNL to additional counties throughout the state. ADP oversaw FNL until 1996, when the department outsourced statewide coordination of FNL programs to the Tulare County Office of Education. This led to the creation of the California Friday Night Live Partnership (CFNLP), which serves as an umbrella organization for the four FNL programs. CFNLP assists FNL county coordinators with program design, development, and management, and program evaluation.

Established in 1991, the Youth Leadership Institute (YLI) is a national organization that connects youth development theory, evaluation, research and practice and works with young people and adults to build communities that invest in youth. A leader in the field of youth development, YLI operates a national Training Institute and local Community-Based Programs, focusing on three disciplines: youth philanthropy, policy and civic engagement, and linking prevention with youth development.

At its inception in the early 1980s, FNL was singularly focused on preventing alcohol and drug use among youth. By the mid-1990s, staff became interested in expanding this vision. CFNLP already had a strong relationship with local FNL programs and experience in building and supporting a statewide system around prevention. Yet in order to expand the program, CFNLP sought guidance from Youth Leadership Institute, which had established itself as a pioneer in the field of youth development. Having been a coordinating organization for FNL programs in two (now three) counties over a decade, YLI was especially familiar not only with the emerging field of youth development, but also with the FNL history, and the strategies it had employed to transition its own FNL programs to a youth develop-

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ment approach. Its first-hand knowledge of the FNL system and its expertise in youth development theory and practice, as well as training and evaluation, positioned YLI as a strong partner in helping the system transform.

### **Review of Related Literature**

YLI and CFNLP turned to the research in an effort to determine which prevention approaches were most effective. This research suggested that prevention programs that focused solely on preventing the use of alcohol and drugs, such as the “Just Say No” approach, did not demonstrate effectiveness in several expected outcomes, particularly the important outcome of reducing use (Ennett et al., 1994; Kreft & Brown, 1998) or influencing young people’s decisions regarding whether to use substances (Brown et al., 1995). Further, a growing body of research indicated that programs with demonstrated effectiveness in both minimizing use and preventing other problems, as well as facilitating the development of important skills and social assets, used a positive youth development framework and approach. Such an approach focuses on promoting healthy development of young people, and providing support and opportunities to meet their developmental needs for love, belonging, respect, power, mastery, and meaning (Benard, 1991; Benson, 1997; Botvin et al., 1990; Eccles & Gootman, 2002; Gambone et al., 2002; Hattie et al., 1997; McLaughlin et al., 1994; Pittman & Cahill, 1992; Schweinhart & Weikart, 1997; Tierney et al., 1995; Werner & Smith, 1992).

Two recent and compelling studies make an especially strong case that providing youth with key supports and opportunities in a program setting leads to positive short- and long-term developmental outcomes (Eccles & Gootman, 2002; Gambone et al., 2002). These longitudinal studies present scientific evidence that applying a youth development framework in a program setting is an effective strategy for both problem prevention and positive youth development. The Eccles and Gootman (2002) study indicates that “high-quality experimental and quasi-experimental evaluations show positive effects on a variety of outcomes, including both increases in psychological and social assets of youth and decreases in the incidence of such problem behaviors as early pregnancy, drug use, and delinquency” (p. 14). The Gambone and colleagues study establishes the strength of the relationship between good developmental outcomes in high school years and success in early adulthood, or longer-term outcomes.

Other key research findings regarding youth development programs lend relevant information to designing a program rooted in youth development. Involving youth as equal partners in program design and management increases positive developmental outcomes and can decrease young people’s exposure to high-risk behaviors (Benard, 1991). Additionally, when young people are engaged as decision-makers in partnership with adults, the decision making that results is often more innovative than when solely adult driven. The process also provides youth with a critical opportunity for the acquisition of skills and an important sense of empowerment and productivity (Zeldin et al., 2002). Furthermore, experts point out that youth engagement not only has positive impacts on the youth and adults involved but can also strengthen the communities in which they live (Cahill, 1996). It has also been noted that programs focusing on the various developmental needs of young people (e.g., health/physical; personal/social; creative/cognitive; vocational; and citizenship; Pittman & Cahill, 1992) have been effective in reducing alcohol and other drug usage and other problem behaviors (American Youth Policy Forum, 1997). Finally, a meta-analysis of research on adolescent development identified key experiences necessary for healthy youth development: adequate nutrition, health, and shelter; supportive relationships with adults and peers; challenging and engaging activities and learning experiences; meaningful opportunities for involvement and membership; and physical and emotional safety (Connell, Gambone, & Smith, 1998).





Based on this review of the research, it was clear that the CFNLP system needed to adopt a positive youth development prevention approach if it wanted to ensure its relevance as a prevention program. YLI and CFNLP determined that the Friday Night Live programs statewide would move forward in a new and exciting direction in which problem-prevention would not be an end in itself, but would be situated in a more comprehensive youth development framework. With YLI's consultation, CFNLP committed itself to linking prevention programs that could be accountable to certain standards with a set of youth development outcomes that could be clearly defined and reliably evaluated. The knowledge gained thus led to transformative efforts to shift toward strategies that engaged youth in the design, planning, and implementation of the programs that served to train them in life skills; increase a focus in skills that would assist them academically (e.g., in writing and analytical thinking); and increase school bonding through positive associations of the Friday Night Live clubs on school campuses and their contributions to the schools in service learning and peer support.

### Program Implementation

YLI began working closely with CFNLP, the Department of Alcohol and Drug Programs Prevention Division (ADP), and Bonnie Benard of Resiliency Associates to begin this ambitious effort to link effective and innovative science-based prevention strategies with positive youth development research. The goal was to firmly ground the mission, goals and strategies of the CFNLP system in positive youth development principles rather than problem reduction alone, reflecting the perspective shift from viewing "youth as problems" to "youth as resources." Thus, CFNLP adopted the following principles, stating that the Friday Night Live programs: (a) are youth driven and led; (b) help young people develop skills and resilient traits (e.g., foster a sense of power and autonomy); (c) build community partnerships to support youth; (d) provide meaningful and caring relationships among youth and with adults; (e) promote belief in youths' capacity to contribute; (f) provide safe, healthy, fun, and supportive places for youth to be; (g) demonstrate cultural competence; (h) have clearly defined and measurable goals, based on research and objective data; (i) support and train adults to work effectively with youth; and (j) evaluate programs periodically to assess progress and refine, improve, and strengthen the program's effectiveness.

A critical part of any shift to incorporate a youth development approach is to create meaningful roles for young people in the evaluation and assessment of those efforts. Mindful of this need, YLI ensured that young people sat on the committee that defined the standards of practice and another group of young people participated in the design of the youth development survey. Young people assisted with the administration of the survey at their local chapters and young people completed surveys, providing valuable feedback on their experiences in their FNL program. In many counties, young people participated in discussions about their survey results and the implications for program course correction.

In order to address the program evaluation principles by appropriately assessing outcomes across programs, which vary by setting (e.g., school-based or community-based) and geographical location (urban, suburban, and rural), CFNLP adopted a set of youth development standards of practice to serve as process outcomes. These outcomes represent critical *supports, opportunities, and skills* young people need to experience on a consistent and sustained basis in order to achieve longer-term developmental outcomes, and they include: a safe environment, opportunities for involvement and connection to community and school, opportunities for leadership and advocacy, opportunities to engage in skill-building activities, and caring and meaningful relationships with adults and other youth. These standards of practice closely mirror the features of positive youth development settings described by Eccles and Gootman (2002).

Seven counties (Alameda, Butte, Orange, Riverside, Santa Cruz, Stanislaus, and Yolo) were selected to participate in the first year of the FNL Youth Development Pilot Initiative, which included focused Linking Youth Development and Prevention training with YLI. This initial pilot group provided CFNLP and YLI with an opportunity to test the curriculum and assess how implementation of the new approaches would unfold.

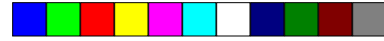
The training series for these counties was designed to present youth development theory, its application, and the research base that indicated the strength of the relationship between youth development and prevention. The training brought decision makers and youth from across a formerly disparate system together to ground them in common theory, dialogue and discuss cross-system collaboration and deepen their understanding of common outcomes for positive youth development. It was conducted over a ten-month period of time with each group spending 40-50 hours in the sessions. Experienced youth development and prevention experts conducted the trainings, with strong involvement from youth trainers and local community experts.

### **Program Evaluation**

Using the standards of practice, YLI designed an evaluation process. The goal was to measure the extent to which FNL pilot counties were successfully applying their youth development training in their programs and measure the experiences that youth participants were having in the context of the standards of practice. While prevention programs have historically been held accountable for status outcomes (high school graduation rates and job attainment) and problem prevention outcomes (reducing alcohol-related problems or drug use), there has been recognition more recently that the set of outcomes has to be broader (Zeldin & Charner, 1996). Two central drawbacks associated with measuring program effectiveness with problem prevention outcomes have been identified: (a) when program evaluation emphasizes these outcomes, the more positive set of developmental outcomes that programs are influencing, such as skill development and relationship development, are often ignored or overlooked; and (b) because there are numerous influences on a young person's life, including his or her community, family, school and peers, a single program cannot claim responsibility for those kinds of outcomes, nor is it reasonable to hold a single program accountable for such outcomes (Gambone & Connell, 1998).

On the other hand, what a program can be reasonably held accountable for is the quality of the setting it provides (Gambone & Connell, 1998). Therefore, rather than focusing on problem prevention outcomes, (i.e., whether FNL participants were reducing their alcohol intake as a result of their participation) Youth Leadership Institute's evaluation focuses on whether young people were experiencing quality program settings, or environments characterized by the standards of practice. The decision to design this type of evaluation in which process outcomes were examined was based in part on the body of research indicating that if young people experience support and opportunities, they are more likely to make positive and healthy decisions about their bodies and their lives and will gain the experience, skills and supportive relationships that will prepare them for their futures (Benard, 1991; Connell et al., 1998; Tierney, Grossman, & Resch, 1995; Werner & Smith, 1982). Thus, Youth Leadership Institute approach to program evaluation sought to determine the extent to which programs effectively and thoroughly integrated key supports and opportunities into their work with young people.

In the later part of year one, three additional counties outside of CFNLP supported trainings joined the process and engaged in the ground-building training and assessment. In year two all 10 counties participated in the assessment: Butte, Orange, Santa Cruz, Contra Costa, El Dorado, Sacramento, San Benito, San Diego, San Joaquin, and San Luis Obispo Counties. There were a total of 848 youth participants from 91 FNL and Club Live chapters throughout the state. Club Live is the junior high



school component of FNL, following the same youth development standards of practice, implemented age appropriately. Approximately two-thirds of FNL participants who responded to the survey were female (68.2%) and the age span of participants was 11 to 19. Approximately one-third of the FNL participants identified as Caucasian (32.3%), close to one-third were Latino/Hispanic (30.7%), 14.9% were Asian/Pacific Islander, 7.1% were African American, and 6% indicated that they were biracial/multiracial. The remaining participants identified as Native American (1.3%), Middle Eastern (0.9%) and other (3.5%).

YLI developed a 43-item survey for youth participants designed to determine the range of opportunities available to youth participants and the range of supports they experienced through the program by assessing the standards of practice. Ten items addressed the standard of Safety by assessing emotional safety, physical safety, and cultural competence. Five items addressed Community Involvement standard through the evaluation of knowledge and contribution to the community. The Skill Building standard was addressed by nine items measuring challenging/interesting activities, and specific skills. Twelve items relate to the Relationship Building standard and measured guidance, practical support, emotional support, adult knowledge of youth, and sense of belonging. The Leadership and Advocacy standard was assessed by seven items measuring decision-making and governance. Each item was rated on a Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). There are six items related to the relationship building standard of practice that utilize a different scale ranging from 0 (no adults) to 3 (three adults). The alpha coefficients for the standards of practice were strong and ranged from .69 (safety) to .89 (skill development). Test-retest reliability studies were not conducted. The results were scored by dimension and by standard, with overall composite mean scores.

## RESULTS

Results reveal some important information regarding the length of participation in the Friday Night Live program. Thirty-four percent of participants reported that they had been involved in the program for less than six months, whereas 32.0% reported six months to one year of involvement. The remaining 33.3% reported being involved for longer than one year. Youth also reported varying levels of frequency of participation. Roughly a third reported that they participated in meetings, events or activities less than once a week (33.6%), while 35.1% indicated that they participate weekly, and the remaining 31.3% reported that they attended more than once a week. Finally, youth responses also differed in terms of the length of time they stayed when attending a program event. Most youth respondents indicated that when they participated, they stayed for less than an hour (43.9%). Another 35.6% reported that they stayed between one and two hours, and the remaining 20.4%, indicated staying more than two hours.

Results from the survey assessing the youths' perspective on their experience with each of the five standards of practice are presented below. As behavioral outcomes are not being measured here, there is no comparison data (with another type of prevention program), nor pre-implementation data. Thus, it is important to consider that the following results reflect the youths' opinions regarding their experience being in the program. Except where noted, all of the mean scores are based on the scale utilized in the survey, where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree.

Youth overwhelmingly reported that they experience a safe environment in their FNL/CL program ( $M = 3.48$ ,  $SD = .41$ ). Responses to items related to safety were more consistent than those of any other standard; the scores reflect overall agreement, as well as the most positive reports on any of the five standards by FNL/CL youth. The Safe Environment mean score (across participating counties) was significantly higher than those of the other four standards, indicating that practices related to creating a safe environment appear to have been better implemented than practices related to the other

areas across the counties. As was the case in most counties, *physical safety* had the strongest score, followed by *emotional safety*, and *cultural competence*. The range of safety means across the counties was 3.34 to 3.57.

The overall mean score (across participating counties) for Community Involvement was 3.15 ( $SD = .60$ ) and its two dimensions: *contribute to the community* and *knowledge of the community* were 3.14 and 3.16, respectively. The range of county means was 2.86 to 3.33, indicating that there was variation across counties in terms of youth perceptions regarding whether the program offered such opportunities.

The overall mean score for Skill Building opportunities was 3.17 ( $SD = .55$ ), with the scores of the three dimensions ranging from 3.14 to 3.19. The range of county means for this standard was slightly wider than other standards: 2.83 to 3.38. The mean score for Skill Building across participating counties was significantly higher than Relationship Building, indicating that practices related to Skill Building may have been more effectively implemented.

The overall mean for two of the dimensions assessing Relationship Building was 3.09 ( $SD = .64$ ). There were differences by county, with a mean range of 2.87 to 3.27 for the Relationship Building standard. Three of the dimensions were measured on a different metric, such that the response indicated the number of adults the youth felt provided practical support, emotional support and guidance. The means for *practical support*, *emotional support*, and *guidance* indicate that, on average, young people reported that there were two adults that they felt they could go to: a strong statement about the relationships between youth participants and adult staff. Nearly all of the young people reported that there was at least one adult they felt they could rely on for practical support, emotional support and guidance. Research has consistently established a strong link between relationships with caring adults and positive youth development outcomes.

The overall mean response for leadership and advocacy was 3.11 ( $SD = .62$ ). The mean scores for the two dimensions differed, with stronger agreement that FNL provided opportunities for *governance* ( $M = 3.19$ ), than for *decision-making* ( $M = 3.03$ ). Interestingly, these scores suggest that while young people feel there are opportunities to facilitate meetings and provide input about decisions, for example, they are not as certain that these governance roles lead to opportunities to influence and participate in decision-making. The range of means across participating counties for *leadership and advocacy* was 2.83 to 3.29.

### Summary of Data Analysis by Gender, Ethnicity and Participation Intensity

Analysis by subgroup revealed some important differences across the standards of practice related to participation intensity, gender, and ethnicity. The findings are summarized below. Statistical tests were used to determine whether mean differences were significant among demographic subgroups and by rates of participation with a confidence interval of 95% ( $p < .05$ ). Male and female mean comparisons were conducted with an independent samples *t*-test and the remaining mean comparisons were conducted with ANOVA tests. Any reported difference below was significant.

*Gender.* Female participant mean scores on all five standards of practice were significantly higher than those of males. This may be related to the fact that there are more female participants in the program, thus creating a more positive experience for them.

*Ethnicity.* There were no significant differences across ethnicity for the Relationship Building standard overall. This is an encouraging finding, as meaningful relationships with peers and adults provide a critical support for young people and address a key developmental need. However, some other differences by ethnicity became apparent. It was found that African American youth participant

scores on Community Involvement were significantly lower than their Asian/Pacific Islander (API), Latino, and multiracial peers. Their scores on the Safety standard were significantly lower than those of Caucasian, multi-racial and API youth participants. Latino youth scores were significantly higher than Caucasian youth on Skill Building and Community Involvement, whereas their scores on the Safety and Leadership and Advocacy standards were significantly lower than those of Caucasian participants.

*Level of participation.* Results suggest that level of participation affects the youths' perspective on the standards of practice. There were significant differences across each length of participation increment ("less than six months," "six months to a year," and "more than one year"), for community involvement, skill development and leadership and advocacy. This indicates that as young people participate in the program over time, they may be more likely to report experiencing these supports and opportunities offered by the program. Interestingly, scores were significantly lower on Safety and Relationships for youth who were newer to the program, but there was not significant difference between these mean scores for the two groups of longer-term participants. This indicates that youth reports about their experience of Safety in program settings and support from adult staff increase significantly after six months and then plateau. Mean differences for frequency of participation reflect those seen with the length of participation analysis. However, for Community Involvement, Skill Building, Relationship Building and Leadership and Advocacy, it appears that weekly participation is ideal for addressing the developmental needs of young people through the program in these four areas. There were no differences across Safety, which could indicate that the program practices designed to create safe environments are effective regardless of frequency of participation. With the exception of Safety, mean differences increased significantly at each of the three levels of duration of participation. In other words, when youth participants stayed longer, their scores were higher.

In summary, it appears that young people's reports about their experiences in the program were often related to their level of participation, especially the duration of the activities, but also the frequency and length of their participation. Simply put, the more program participation, the stronger their endorsement that they were experiencing the supports and opportunities that define the standards of practice. Gender also appeared to be an influence, with females consistently reporting more positive experiences in the program. Ethnicity made a difference in some standards, with African Americans scores reflecting a less positive experience on the community involvement and safety standards.

## DISCUSSION

Taking part in this program transformation and evaluation process has yielded a number of important lessons. First of all, it has become clear that prevention programs at a community level need science-based and research-driven data to not only identify expected and reasonable outcomes, but also to validate and confirm their practice, as well as discontinue and correct ineffective strategies and practice. Many programs within the system had still been engaged in targeting their resources toward goals and strategies that had not been proven through evaluation measures. For example, didactic classroom-based knowledge transfer via curricula about the dangers of drugs and drinking showed no correlation to the reduction of use (Ennett et al., 1994; Kreft & Brown, 1998) nor to decisions about not to use (Brown et al., 1995). Learning about the importance of connections to community for example, promoted positive outreach and partnership for the program and served as a "win-win" situation for both the youth in FNL and another community coalition of groups working on substance abuse/tobacco prevention.



Other key lessons learned consisted of an understanding that strong partnerships between research and assessment, and youth and adults in all elements of the program are critical. Furthermore, shared vision, values, and beliefs, regarding the roles of young people, the connection to the broader community, social justice, the need for effective program strategies, and the ways in which outcomes are measured is also essential for success. Along with an understanding of partnerships, has been an increased awareness on the part of staff about the necessity of engaging youth in the program and activities. By placing young people at the center of the CFNLP system, they are engaged at ALL levels of the program and are now often pulled into other initiatives locally, statewide and nationally as a model of youth-adult partnership and youth engagement.

Finally, important lessons were realized regarding the value of a thorough evaluation that is linked to the developmental needs and issues of the youth. Addressing the program elements over which staff has control is key to the success of a transition. The need to conduct ongoing evaluation to provide staff with a sense of what they are accomplishing and areas for improvement annually is critical to program accountability and improvement. Additionally, it is critical to provide staff and young people with opportunities to build their capacity in evaluation, through participation in the design, implementation and analysis of results. In examining the standards of practice outcomes for the first time we were able to look at youth participants in the context of their broader developmental needs and the issues that affect them. By examining supports and opportunities of CFNLP programs we were able to understand how the program is able to address important aspects of adolescent development, including: making community connections, meeting a diverse group of youth, and attaining skills and engaging in leadership efforts that also framed their peer and adult relationships.

Through this process we are now able to continue to make programmatic course correction through the lessons that were learned throughout this process and have a clear and compelling understanding of the need to apply those lessons to action-oriented policy recommendations to guide future actions. The system shift to embrace youth development is an ongoing process. Initiating pilots and building a learning network has created a pathway for the Friday Night Live system to adopt a number of different strategies. Rather than being focused solely on problem reduction, Friday Night Live has adopted a developmental framework that allows young people to be engaged as partners in the design and implementation of age-appropriate opportunities. Additionally, after experiencing the effects of the philosophy and framework on these particular programs, it was expanded to other components of Friday Night Live. One example of this philosophy expansion has been the successful transition of the cross-ageFNL Mentoring model. The Friday Night Live Mentoring program trains high school students to mentor middle school students, using a structured program that extends over a 16-week period.

The Friday Night Live Mentoring program followed the model of the youth development pilot programs. Grounded in the research base on the benefits of quality mentoring relationships, the Friday Night Live program joined the California Governor's Mentoring Partnership. Championed by Governor and Mrs. Wilson, and then by Governor and Mrs. Davis, the Governor's Mentoring Partnership helped raise the awareness and profile of the need for quality mentoring in California. The combination of research-based approaches and political will to support the success of children is powerful. In keeping with the commitment to engage youth, Friday Night Live looks to high school students to mentor middle school students. Adult allies work with the mentors and protégés to implement a 16-week program, which incorporates the research based Project ALERT curriculum.

The Friday Night Live program has been able to bridge the gap between community- and school-based programs. Young people in the Friday Night Live program and the Friday Night Live Mentoring

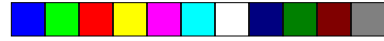


program are supported in their individuation and in taking appropriate risks. The Standards of Practice for youth development adopted by Friday Night Live provided the framework for a continuously improving system that is flexible to meet the continuous changing needs of youth. A shared understanding and belief that meeting the key developmental needs of adolescents, while approaching them in a holistic and engaged manner, is a critical promotion for both adolescent developmental science and youth development and prevention practitioners. School psychologists can utilize Friday Night Live as a partner in the school and community to provide additional supports and opportunities for young people.

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## Resilience: From Program to Process

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This article considers school engagement from a resilience perspective. Despite a 40-year research legacy, only recently have practitioners/researchers engaged in the explicit, prospective facilitation of resilience in school settings. Derived from the book *Resilience Education* (Brown, D’Emidio-Caston, & Benard, 2000), based on supporting theory and evidence, a process-based model is advanced. As an ever-present part of school participant interaction, Resilience Education (ReSed) is conducted by balancing a global youth development orientation with the specificity of supporting protective factor development. Preliminary evidence suggests high satisfaction and internalization of the model by workshop participants. Discussion focuses on the potentially unique contribution ReSed offers, as well as some pragmatic ways to begin applying it in any school practice. While more research is needed, it is concluded that ReSed offers a promising model of how “resilience” occurs, not solely as an outcome, but as a moment-to-moment learning and development process.

Keywords: Resilience, School Engagement, Youth Development

### THE FOUNDATIONS OF RESILIENCE EDUCATION

Resilience education is significant and unique as an interactive human and humane process that supports lifelong learning and development. In this process, a global and holistic view of such learning and development is balanced with the specificity of facilitating three research-based and affective protective factors: person-to-person connectedness, opportunities for participation and contribution, and high self expectations (Benard, 2003; Werner & Smith, 2001). Resilience in Education represents a central part of how my colleagues and I view school engagement. Yet only recently has it been intentionally applied in educational settings. This model of applying resilience in Education (ReSed) was created with colleagues Bonnie Benard of WestEd and Marianne D’Emidio-Caston of Antioch University for the Center for Educational Research and Development (CERD) in Berkeley.

In a non-didactic yet directed way, ReSed facilitators develop the “hows” of building a community of support for identifying and working with people’s strengths and interests in order to promote learning and development. This is achieved by strategically working with individuals, dyads, triads, small groups, and large groups. Such strategic inter- and intra-personal processes make visible to the facilitator and model opportunities for specific protective factor development and/or support. Moreover, the facilitation of ReSed serves as a model that young people can use to marshal their strengths for learning and development throughout the course of their own lives. This approach is described herein and more fully in the book *Resilience Education* (Brown et al., 2000). Because its focus is on a resilience building process, not a manualized program, ReSed is context acknowledging, yet context independent—participants can apply it in any school, counseling program, curricula, or human service program.

This article discusses the promise of resilience in school engagement not solely as an outcome, but as a moment-to-moment process orientation. In the following sections, its conceptual, definitional,

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and applied grounding are described. The article closes with a discussion of the distinct and promising contribution that Resilience Education may offer, as well as recommendations to focus your work on resilience.

### **Resilience Education Foundations: A Global Orientation Balanced with Protective Factor Facilitation**

CERD's view of resilience and its application in education balances a global and holistic view of development with the specific processes of facilitating three key protective factors. ReSed's research foundations are derived from the fields of Human Development, Psychology and Education. While a full literature review is provided in the book *Resilience Education* (Brown et al., 2000), its foundations are briefly described here.

*Global resilience orientation.* A global resilience orientation is seen as the likelihood that most young people, even those in the highest stress environments, will evolve into thriving adults (Garmezy, 1987, 1991; Rutter, 1985, 1987; Werner, 1989). For example, after following people from birth to adulthood for more than 40 years, Werner and Smith (2001) found that:

...most of the high-risk youths who did develop serious coping problems in adolescences had staged a recovery by the time they reach midlife...They were in stable marriages and jobs, were satisfied with their relationships with their spouses and teenage children, and were responsible citizens in their community. (p. 167)

In this and other longitudinal studies, approximately 70% of young people with multiple risk factors in youth thrive by midlife. Masten (2001) best captures this global resilience orientation:

Resilience does not come from rare and special qualities, but from the everyday magic of ordinary, normative human resources in the minds, brains, and bodies of children, in their families and relationships, and in their communities. (p. 238)

Theory and evidence suggests resilience can serve as a global orientation because its occurrence is a "normative" part of development in the vast majority of people's lives. When human beings are faced with life challenges, they often manage, adapt, and move on. A focus on resilient development as a powerful global orientation leads to reformulating the basic question from "Which people are resilient?" to "What are the resilient possibilities within each person?"

*Specific protective factors.* As noted earlier, the research literature suggests that three dimensions—connectedness, opportunities for participation and contribution, and high self expectations—serve as the primary protective factors predicting the fostering of resilience by midlife (Benard, 2003; Resnick et al., 1997). Psychobiologically, within each of these specific factors, socio-emotional or affective states may literally create development, learning and thriving (D'Arcangelo, 1998; Sylwester, 1995a). Emotions are not simply adjuncts to learning; they act as the glue between perception, learning, and development. Specifically, emotional arousal causes the movement of peptide chains to the brain, which in turn causes the formation of neural connections in the brain. This literally indicates learning and development (Parasuraman, 1998; Sylwester, 1995b; Vincent, 1990). Connecting this psychobiological evidence with the protective factor evidence, it is theorized that the affective dimensions inherent in these protective factors—a young person feeling connected with an adult, experiencing opportunities for participation and contribution as well as developing high self expectations—create a variety of emotional states of readiness wherein learning and development can occur.

It is important to note that before the educational community began applying such human development evidence regarding protective factors to school and youth development, similar ideas could be drawn from Education and its foundational fields. Most notably, this is seen in the work of Berger and Luckmann (1967), Belenky et al. (1986), Thayer-Bacon (2000), Thayer-Bacon and Bacon (1998), as

well as the applications of Dewey (1897, 1899, 1902), Montessori (1912), and Brown (1972, 1975). The thread binding these philosophers and practitioners is a constructivist and/or a socio-emotional perspective of learning. Within these perspectives, either originating from one's self or in concert with others, information or experiences become meaningful and learned in accord with each individual's emotional ties to that information or experience.

The most direct and significant evidence regarding application of resilience in Education emerges from a now-ended project of the Developmental Studies Center (DSC; Battistich & Hom, 1997; Battistich, Schaps, Watson, Solomon, & Lewis, 2000; Watson, Battistich, & Solomon, 1997). DSC researchers/practitioners focused on the global view of creating a resilient school climate. An example of longitudinal findings from this research is summarized:

[Results revealed] higher test scores, higher grades in core academic subjects, more involvement in positive youth school and community activities and less misconduct at school than comparison students. (Brown, 2001, p. 50)

This evidence provides the strongest support to date establishing a reasonable basis for further exploration of the prospective role of resilience in education and related systems.

#### **A Process-Oriented Definition of Resilience**

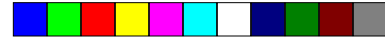
The literature and evidence from Human Development, Psychology, and Education suggest the following: whether the context is counseling, math, science, history, or otherwise, a school engagement climate focused on learning and development includes both a global view of each person's developmental capacity along with the specificity of focusing on protective factors. Based on the theorized importance of this balance, a process-oriented definition of resilience is offered—*A global orientation toward each individual's capacity for lifelong learning and development that is facilitated individually or interactively by cognitively, affectively, or behaviorally locating and/or supporting the protective factors of person-to-person connectedness, opportunities for participation and contribution, and high self expectations.*

#### **Resilience Education: Translating Theory into Practice**

ReSed is designed to become a part of the evolving fabric of school engagement in learning and development activities. As such, the central dimension of ReSed's viability is how its theory and definition is translated into practice. This is to be achieved in two ways: (a) facilitating a caring learning community comprised of the day-to-day and moment-to-moment processes of locating and supporting the three protective factors and; (b) at the professional's discretion, offering subject-specific information—counseling feedback, math, science, history, or any form of subject content—during teachable moments. Teachable moments are those in which there is a perceived emotional state of readiness to receive subject-specific content, which may then become learned.

In CERD's training workshops designed for those working with young people, ReSed is not only discussed, it is experienced—often over a two-day period. The workshop's goal is to develop a resilience-oriented community. It is also to learn how to balance the global development view of resilience with the specificity of supporting the protective factors. By reinterpreting, adapting, and subsequently applying their own training experience from the training workshop to the unique needs of their professional setting, each workshop participant brings ReSed's principles to life. As participants go back into their professional settings, they then have an initial skill set to draw from for supporting the creation of a resilience community.

Within the training workshop itself, two types of facilitation exercises are used. The first is what is referred to in the *Resilience Education* (Brown et al., 2000) book as a "PORTable" approach. The



second is embedded within the first—strategic and intentional regrouping or shuttling among workshop participants in individual, dyads, triads, small and large group configurations. More is said about each of these training categories.

### Two Categories of ReSed Exercises: PORTable and Group Configuration

*PORTable exercises.* As noted above, we use an acronym for our resilience building approach—P-O-R-T. It is named as such because it is literally portable—it can be applied in any learning environment. The model includes four distinct elements of the human experience believed integral to supporting resilient development: *Participation, Observation, Reflection, and Transformation*. Participation involves authentic, present-focused active engagement of self and with others involved in learning and development activities. Observation involves noting or describing rather than interpreting these experiences. Reflection involves interpreting such current experiences. Finally, transformation involves "...awareness of and responsibility for an act, process or instance of change" (Brown et al., 2001, p. 50).

In PORT-able exercises, facilitators work with participants to distinguish and differentiate these elements of human experience into the four distinct categories. An exemplar overview of a two-day workshop and its exercise and/or resilience-oriented goals is presented in Table 1. As a brief example here, I distinguish the Observation of an experience such as "you just spoke to me in a high pitched voice," with an interpretation of that experience or Reflection such as "from what you just said I am interpreting this as you being angry with me." PORT exercises are designed to highlight such distinctions cognitively as is noted here. Additionally, by actually participating in or experiencing skill-building PORT exercises, rather than simply talking about them, highlights distinctions affectively. For example, through workshop exercises, participants both sense and learn how to contribute to their own resilient development by experiencing the caring connected relationships inevitably developed during such exercises. Based on the combination of cognitive and affective dimensions of PORT exercises, participants learn how its elements serve distinct, essential purposes in supporting the protective factors of ReSed. This includes the development of ongoing awareness and personal responsibility for communication patterns, identifying resilient capacities, and strengths in how to facilitate resilience. Paradoxically, it appears that by differentiating the elements of the PORTable model, eventually participants reconnect them. Subsequently, an integrated and holistic view of resilience along with the initial skill set to support its facilitation, emerges.

*Group shuttling exercises.* Be it a counselor conducting group work, an educator with many students, or a school administrator facing competing time interests, using traditional means, one simply cannot meet all people's resilience learning needs. These concerns may be addressed by learning how to effectively shuttle or regroup participants as individuals, dyads, triads, small and large groups. Embedded within the PORTable exercises described above, the specific goals of configuration exercises are the following: (a) to make visible how different configurations affect one's ability to learn and develop, both individually and as part of a group; (b) to make visible multiple opportunities for support and/or facilitation of protective factors; and (c) to learn how to efficiently and effectively facilitate such shuttling as a means of protective factor support, learning, and development.

How do we know how and when to shuttle? There are numerous considerations. At its most basic level, such regrouping is necessitated by a combination of training experience, professional discretion learned through PORT, and ongoing participant feedback. Most importantly, reconfiguration or *shuttling* occurs when the facilitator perceives the resulting new configuration serves the development and/or learning of the emerging resilient community.

More specifically, our facilitators always consider their audience. Exercise order, the level of detail, content, and sophistication will vary. Thus, different group configurations are needed. For ex-



ample, during workshops such considerations may necessitate an orientation toward “reflection” rather than “observation.” A reflective exercise may involve noting individual interpretation and reporting back to a larger participant group. On the other hand, an observational exercise may involve two participants working together to develop their skills at non-judgmental observation. By participating in different working configurations, participants can locate the configurations in which they feel most engaged. To the extent to which such shuttling is made explicit, participants also acquire a portion of the skill set needed to locate and meet his or her own learning and development needs. Shuttling then, to serve participants’ needs is the epitome of being responsive to opportunities for protective factor development as they emerge.

### **Resilience Education Workshop Summary**

Based on this model, ReSed workshops model and facilitate a resilience-oriented community through non-didactic yet directed learning. The non-didactic portion is that each person has a unique experience of discovering his or her own resilience and how that may support the principle of balancing the global orientation with specific protective factor work with their colleagues and/or young people with whom they work. The “directed learning” portion of the model is that there is usually a clear learning progression—that facilitators can direct efforts toward—as indicated by the typical order in the PORT-able model.

With professional discretion as to age appropriateness, opportunity, and skill level, ReSed principles are brought to life by using a variety of PORT-able and shuttling exercises. These include some of the exercises used during the training workshop. At the discretion of the professional, it may also include using new exercises she or he develops when working with young people. To the extent that the process and resilience-related principles are made explicit and used by the facilitator, the goal is one of self efficacy—young people or adults using them to develop skills in support of their own resilient oriented learning and development.

### **Promising Pilot Findings: Positive Attitudes and High Levels of Internal Attribution**

Research regarding ReSed is in its earliest stages. In pilot research, participant satisfaction and implementation levels are now being examined. Qualitative and quantitative pilot results from workshops with counselors, educators and administrators suggest promise (Brown & D’Emidio-Caston, 2003). For example, one educator typical of others, noted:

Personally I have begun to use the vocabulary and strategies in my day-to-day contacts. I’ve noticed that people are more open to hearing what I say if that “democratic community” is established. Even the brief respites of time to quiet myself and go inside allows me to be more open to what is being taught. With this openness I release judgments that might interfere with hearing what is being said. (Brown & D’Emidio-Caston, 2003, p. 2)

Quantitatively, regarding overall perception of ReSed at a University of California, Berkeley co-sponsored workshop, out of a potential rating of 4.0, participants rated the workshop on an average of 3.7, with 22 of 25 participants perceiving the workshop as “good” to “excellent.” More importantly, it was found that by the end of the workshop, on psychological attribution outcome measures (Kelley, 1967; Raven, 1965), participants had taken on dimensions of ReSed as their own. These early results suggest that changes participants may make with respect to their ReSed practices were attributed significantly more to themselves (internal attribution) than to the group leaders (external attribution). Such attributions indicate an internal locus of control, perhaps as part of incorporating the protective

factor of “high self expectations.” Such internalized attributions predict long-term behavioral change (Ajzen & Fishbein, 1980). These findings have been consistent across additional workshops.

While the preceding pilot evidence is interesting, further research is needed regarding (a) the developed skill and implementation level of ReSed in school environments and (b) the facilitator/youth impact of ReSed. In addition to the measures noted above, outcomes being examined are similar to those of the DSC research as well as the developed level of “connectedness” described by Resnick et al. (1997).

### The Application of Resilience Education

This article draws attention to the potential value of resilience as part of school engagement, learning and development by focusing on its daily opportunities. As the potential contributions are described below, there is an important matter to consider. For those interested in fully implementing the ReSed approach, more than two days of trainings are recommended. Among participating staff, approximately four workshop days spread over two months combined with two additional days in two subsequent years and/or ongoing whole-school change consultation support is recommended. Such additional work usually involves more in-depth variations of the training as described in Table 1.

**Table 1.**

#### *General ReSed 1.5-Day Workshop Description*

<b>Exercise and Group Configuration</b>	<b>Exercise and Resilience Goal</b>
<b>Day 1: Community Building and Introduction to Resilience Education</b>	
<i>1. Dyads and then whole group: Partner Introductions</i>	
Each person interacts with another to first learn a bit about who the partner is, then later in the whole group, introduces the partner.	-Begin authentic present focus and building caring, connected interpersonal relationships
<i>2. Whole group: Develop Norms/Ground rules for workshop participation</i>	
Facilitator acts as prompter and note taker to develop participatory ground rules.	-Continue the above -Helps build resilience oriented community by adding dimension of personal ownership and empowerment for the workshop -Develops group participatory norms
<i>3. Individual: Brief guided imagery regarding individual that participant experiences as fostering an interpersonal life connection</i>	
Followed by “quick write” to make immediate perceptions explicit.	-Continue building authentic present focus through low-risk exercise -Helps make visible potential strengths for the protective factor of high self expectations
<i>4. Whole Group: Relationships, Messages, Opportunities</i>	
Based on quick write above: Share relationships, opportunities and messages that you experienced in your life. Experience is subsequently integrated with brief research presentation.	-Link affective experience, relationships and messages with cognitive information regarding resilience -Concept attainment: Foster general understanding of research support for ReSed



Table 1. *Continued*

<p>5. <i>Individual and then dyads: Individual quick write to connect information above with learning about resilience in present moment</i> Share noted learning with colleague.</p>	<ul style="list-style-type: none"> <li>-Initiate reflective practice using present-focus and continue process of intrapersonal strength location</li> <li>-Moving into dyads, using affective personal stories to begin tying personal experience into research-based dimensions of resilience</li> <li>-Further deepening of interpersonal connectedness</li> </ul>
<p>6. <i>Whole Group: Closure to first morning: Introduction to Processing</i> Large group discussion of two dimensions to be made explicit: (a) content processing, e.g., what is being learned about resilience education; and (b) meta processing, what is being learned about how the participant learns, e.g., strength and interest identification.</p>	<ul style="list-style-type: none"> <li>-Same as above</li> <li>-Deepen reflective practice</li> <li>-Make explicit types of learning strengths, individually noted optimal learning context(s)</li> <li>-Explore desired opportunities for participation and contribution available to participants</li> </ul>
<p>7. <i>Be Here Now Exercise</i> Identify participant focus in each moment as it occurs; partners face one another. One partner begins by stating “now I” and then the other partner responds with “now I.” Continues back and forth for two or three minutes.</p>	<ul style="list-style-type: none"> <li>-Make explicit authentic present focus</li> <li>-Continue deepening interpersonal connections</li> <li>-Support development of protective factor of high self expectations through skills building exercise</li> </ul>
<p>8. <i>Dyads or Triads: See, Imagine, Feel Exercise: Two people sit facing one another</i> If third is present, s/he observes the two. The first nonparticipant makes an “I see” statement, followed by an “I imagine” statement, concluded by an “I feel” statement. The partner responds with similar statements. They continue back and forth for approximately 3 minutes and then discuss their experience. If observer is present, s/he provides and separates observational from reflective feedback. Observer then participates with a partner and new observer until each of the triad members have had an opportunity to participate and observe.</p>	<ul style="list-style-type: none"> <li>-Learn how to explicitly distinguish between observation and reflection</li> <li>-Learn how to give descriptive and evaluative feedback</li> <li>-Continue deepening interpersonal connections; Supporting high self expectations through skills building exercises</li> </ul>
<p>9. <i>Whole Group; Mini-Lecture: Explicit Introduction to PORT approach and use of shuttling to facilitate resilient community</i></p>	<ul style="list-style-type: none"> <li>-“PORT” concept attainment derived from above exercises and multiple configurations</li> </ul>
<p>10. <i>Whole Group: Meta processing and end to day one</i></p>	<ul style="list-style-type: none"> <li>-Same as similar exercise described above</li> </ul>

Table 1. *Continued*

<b>Day 2: PORT in Closer Detail and Application in Your Professional Setting</b>	
<i>11. Small Groups: View brief video; describe or note observations without evaluation</i>	<ul style="list-style-type: none"> <li>-Reinforcing importance of separating observation and reflection</li> <li>-Make explicit identification of intrapersonal observational strengths</li> <li>-Deepen connectedness through small group configuration</li> </ul>
<i>12. Small Groups: Content and meta-reflection in present moment</i>	<ul style="list-style-type: none"> <li>-Reinforcing role of interpretation and distinction between content and meta-reflection</li> <li>-Make explicit location of reflective strengths</li> <li>-Deepen connectedness through small group configuration</li> </ul>
<i>13. Triads: Transformation: Present and Future Applications: One case/situation in your professional environment where application of PORT may be possible</i>	<ul style="list-style-type: none"> <li>-Concept attainment: Noting application in specific work environment</li> <li>-Further develop high self expectations, by identifying realistic opportunities for change in work environment</li> <li>-Preparation for application of strengths based focus outside workshop</li> </ul>
<i>14. Whole Group: Closure; content and meta-processing</i>	<ul style="list-style-type: none"> <li>-Make explicit final concept attainment</li> <li>-Learning about the process of ReSed, intrapersonal strengths and optimal learning configurations, a resilience-oriented caring connected community has been developed</li> <li>-Offer closing opportunities for deepening connectedness using participatory and contributory options, and how these can be continued outside this workshop</li> </ul>

### **The Potential Contribution(s) of Resilience Education to Learning and Development**

First, once learned, it appears that the ReSed process orientation may become commonplace. Our work is generally focused as a support to existing learning and development activities. As such, ReSed is not a stand-alone program, but rather can be integrated as part of nearly any school learning or development program. It is not an academic standard, but indications are that ReSed can lead to supporting the attainment of such standards.

Second, the psychobiological research suggests that the emotions developed when focused on protective factors create literal opportunities for learning and development. As people emotionally experience the protective factors, content specific information offered during that time can become learned through the creation of neural brain connections formed due to that emotional experience.

Third, ReSed may make a unique contribution because a most delightful aspect of the PORT-able

approach is its mutuality. For example, the development of caring, connected relationship(s) for the purpose of learning and development by definition includes the building of relationship(s). Given the intended, recognized, and appreciated goal of mutuality, ReSed may also prevent facilitator burnout by supporting the professional development and health of the helper.

### **Practical Steps for Promoting Resilient Development**

Overall, the supporting psychological, development and educational theory and evidence suggest that it is time to expand efforts to promote youth resilience. As a practical guide, in efforts to do so—to bring about the “ordinary magic” to which Masten (2001) refers—several pragmatic steps may be taken.

In general, work to strike a balance between a global orientation toward resilience and the specificity of focusing on the protective factors through ongoing processes and professional assessment. Specifically, learn how to make these factors visible and supportable to the facilitator and with young people. This may be achieved by drawing dimensions from the PORT-able approach such as focusing on being presently engaged and becoming aware of verbal and non-verbal cues, and regularly providing descriptive rather than evaluative feedback. The goal of making explicit such observations is two-fold: (a) to clearly note what is going on for you right now and (b) to clarify your thoughts or interpretations from those of others, or what is referred to in psychological terms as developing a clear boundary differentiation. In the service of modeling or facilitating development of a specific protective factor, share observations with those with whom you work as descriptions, not only determinations.

Another practical step involves adding regular and targeted opportunities for reflection as described above and in Table 1, item #6, to your toolbox. This helps you make explicit for yourself and to hear from others their interpretation of the same thoughts or events. Additionally, the regular availability of non-judgmental processing may also help build the kinds of caring connected relationships known to support resilient development. Embedded in these practices is the importance of learning how to shuttle between individual and various group combinations.

Finally, one may want to use these process options before determining what resilience-supporting changes to make. This stepwise approach to resilience building allows the facilitator as well as those they serve to accomplish this goal—to support resilience-oriented change in real time, as part of an ongoing process. In so doing, decisions can be made by determination rather than by inertia or default.

## **CONCLUSION**

As conceptualized, developed and implemented by CERD, ReSed draws from the best human development, psychobiological, and educational evidence to implement a development focus. The ReSed orientation has the potential to enhance school engagement. This change is toward a sophisticated, affective, and humanistic form of school engagement—one that is directed, yet youth supporting and focused. It does not replace other scholastic quality standards, but as learned through the ReSed process, can come to represent a higher level of quality—lifelong quality—in learning and development. ReSed offers a promising hope because those using it seek to strike a manageable balance between a global orientation toward resilience and a development process specifically connected with its protective factors. As a process and not just another program, ReSed provides counselors, educators, or administrators an opportunity to support a youth development approach. This is hu-

manely managed school engagement.

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## Using the Santa Barbara Assets and Risks Assessment to Examine the Ecology of Youths Experiencing Behavior Problems

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Following a review of important factors and considerations among youths displaying behavior problems, this study examined the predictive validity of the Santa Barbara Assets and Risks Assessment (SB ARA) with a population of European American and Mexican American high-risk adolescents ( $n = 566$ ). The results of this study provide evidence that the SB ARA has adequate predictive validity of recidivism. Notably, the SB ARA provided prediction of recidivism, 12 months following assessment, for both females and males. The analyses also revealed different sets of indicators that predicted recidivism for females and males, thus, providing evidence supporting the position that there are some unique and some common indicators predicting recidivism for females and males. It is proposed that the SB ARA provides an exemplar for assessing both assets and risks among many salient developmental dimensions, is appropriate to use with males and females, and provides a comprehensive understanding of youths displaying behavior problems. Implications for the provision of services are also discussed.

Key Words: Assets, Risks, Ecology, Context, Prediction, Recidivism

The number of students with emotional and behavioral disorders served by schools is approximately 2% of the student population; moreover, the number of students needing support for emotional and behavioral problems is estimated to be as high as 10% (Sawka, McCurdy, & Mannella, 2002). Students with behavioral difficulties are diverse, including those with traumatic brain injury, cognitive deficits, and psychiatric mental disorders with symptoms including hyperactivity, impulsivity, inattention, aggression, and low frustration tolerance (Gaoni, Black, & Baldwin, 1998) with patterns of behavioral difficulty likely to emerge in preschool years and pervade home, school, peer, and community environments. Without appropriate intervention, behavior disorders tend to escalate throughout the elementary school years and children are at-risk for dropping out of school (Digest of Education Statistics, 2002), developing adult psychopathology, and leading antisocial lifestyles (Kauffman, 1989). There is a clear need to identify and intervene with children displaying behavioral difficulties at an early age in order to ensure that identification of needs leads appropriate services to children.

### ASSESSMENT OF STUDENTS DISPLAYING BEHAVIORAL PROBLEMS

Though behavioral difficulties are one of the most common forms of referral to school psychologists, educational professionals remain uncertain of how to assess such problems. Forming a concise but comprehensive definition of behavior disorders is difficult due to the multitude and diversity of disorders that are involved. This may be due in part to a lack of common understanding in the diagnosis and treatment of behavioral disorders. The Individuals with Disabilities Education Act (IDEA) definition of emotional disturbance provides little guidance in the identification and treatment of this population of children. The definition is vague and contains controversial language (Rosenblatt & Furlong, 1997) in addition to including children with a variety of internalizing, externalizing, and comorbid behavior problems (Stinnett, Bull, Koonce, & Aldridge, 1999).

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Complicating an understanding of emotional and behavioral disorders is the difference in types of behaviors displayed by males and females. More males than females are diagnosed and treated for emotional and behavioral disorders, with ratios ranging from 3:1 to 25:1 (Callahan, 1994). Sex and gender differences in behavior disorders are caused by a multitude of factors including biological and social influences (Callahan, 1994). Girls tend to exhibit internalizing problems, whereas boys tend to exhibit externalizing problems (Keenan & Shaw, 1997). In addition, girls and boys develop disorders along different developmental pathways. Whereas boys' problem behavior has been found to grow in a linear fashion, the development of girls' problem behavior is less consistent, being more dependent on females' unique biological, psychological, and social experiences during distinct developmental periods (e.g., adolescence; Keenan & Shaw, 1997). The assessment of students displaying emotional and behavioral disorders should take into consideration differences between males and females.

Valid procedures to understand the ecology of youths displaying behavioral problems are essential for school psychologists to access. Screening procedures to identify students with emotional and behavior disorders are often used to make high-stakes decisions regarding supervision, treatment, and placement including referrals to mental health services and centers for therapeutic education and support. These measures tend to focus on individual child deficits, without attending to important family, community, and school influences affecting child behavior. The Santa Barbara Assets and Risks (SBARA) assessment was designed to examine factors associated with developing behavioral disorders (risks) as well as those factors associated with preventing increasing behavioral difficulties (assets) through inclusion of indicators of youth risks and assets that address the unique developmental experiences of both males and females. In addition, the tool examines both strengths and weaknesses in order to provide a balanced and comprehensive understanding of the current context of the problem behaviors.

### **Factors Associated with Behavior Problems**

Previous research reveals numerous factors that have been related to the adjustment and behaviors of adolescents. Many of these factors facilitate either positive or negative developmental trajectories, depending upon whether the youth experiences a relative asset or risk. The following provides a brief review of the most salient factors, including; parent-child relationships, family criminality, family substance abuse, family mental health, individual factors, individual criminality, individual substance use, community factors, peer factors, school factors, sexual activity, and history of trauma.

#### **Parent-Child Relationships**

Parent-child relationships are one of the most important factors guiding child outcomes. Variables such as antisocial behaviors among parents, difficult child temperament, and parent substance abuse are often mediated by poor family management skills, ineffective discipline, and lack of monitoring. Children in such environments are at greater risk for behavior problems because they are at greater risk for experiencing poor parenting practices (Patterson & Stouthamer-Loeber, 1984). Similarly, positive family functioning variables, such as family cohesion, adaptability, and effective communication are predictive of fewer negative and more adaptive outcomes (Shields & Clark, 1995).

#### **Family Criminality**

Studies have demonstrated a link between family criminality and future antisocial behavior (e.g., Farrington et al., 2001) with father criminality a stronger predictor than mother criminality. Juvenile offenders are also more likely to have siblings with criminal histories than the average adolescent



(Fejes-Mendoza, Miller, & Eppler, 1995). The risk of criminal family members may be particularly strong for females as evidence suggests that female offenders are significantly more likely to have criminally-involved parents than male offenders (Funk, 1999).

### **Family Substance Use**

In their research, Kuperman, Schlosser, Lidral, and Reich (1999) found that boys in families with parental alcoholism had significantly higher rates of attention deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder than expected in the general population. Girls in such families evidenced increased rates of overanxious disorders. Luthar, Cushing, Merikangas, and Rounsaville (1998) examined the adjustment of 78 children and adolescents of opiate and cocaine abusing mothers. Of these children, 67% met criteria for at least one psychiatric disorder, with 46% qualifying for at least one affective/anxiety disorder, and 30% qualifying for at least one disruptive behavior disorder. Evidence supporting the impact of parental drug and alcohol abuse has been supported further by Rhodes and Fisher (1993), who found that females whose parents abused drugs or alcohol were significantly more likely to commit a greater number of delinquent offenses compared to delinquent females without such a risk.

### **Familial Mental Health**

Familial mental health has also been significantly associated with delinquency (Ge et al., 1996; Renk, Phares, & Epps, 1999). Some researchers have evidenced the genetic transmission of mental health problems among family members (Cadoret, Yates, Troughton, Woodworth, & Stewart, 1995; Plomin & McClearn, 1993), whereas others have established the impact that familial mental health problems may have on a child's environment (Bell & Chapman, 1986). However, as found in an adoption study performed by Ge and colleagues (1996), familial mental health is likely to impact youths through both pathways. These researchers suggested that their findings support an interaction in which a child's genetic predisposition toward mental health problems may influence the childrearing practices of parents, which may subsequently reinforce problem behavior in children.

### **Individual Factors**

A number of researchers have highlighted particularly salient individual characteristics that are associated with negative outcomes for youths. Using multiple measures of various dimensions of self-efficacy, Ludwig and Pittman (1999) found that high scores on the self-mastery and self-trustworthiness dimensions of self-efficacy were associated with lower levels of delinquent behavior, risky sex, and drug use. Hansen and Breivik (2001) examined the relationship between sensation seeking and risk-taking behavior among junior high school students in Norway and found high correlations between sensation seeking and risk behaviors. Longshore (1998) found that self-control was significantly correlated with juvenile criminal activity, suggesting either that crime was more frequent for individuals who endorsed lower self-control or that they were easier to catch. Taylor, Chadwick, Heptinstall, and Danckaerts (1996) found that hyperactivity predicted violence and defiant/disruptive behaviors as well as poor peer relationships, a lack of involvement in social activities, and poor academic achievement. Davis, Bean, Schumacher, and Stringer (1991), compared data regarding mental health functioning and social skills among youths involved in juvenile correctional institutions, youths in private psychiatric residential facilities, and a control sample of community youth. Findings indicated that juvenile offenders had similar mental health concerns as youths in mental health facilities but demonstrated significantly more acting-out behaviors. In comparison to the sample of community



youth, juvenile offenders were found to have significantly more social skills deficits. In addition, prevalence rates of mental health disorders were significantly greater in youths involved in the juvenile justice system compared to controls.

### **Individual Criminality**

Studies examining individual criminality have found that factors such as age at first offense and types of involvement in crime future behavior problems and recidivism (e.g., Hawkins et al., 1998). Findings from longitudinal studies demonstrate that children who become serious offenders later in life often have a history of disruptive behavior in childhood (Hawkins et al., 1998) and note that children with an early onset of delinquency were most likely to reach the most serious level within a pathway to disruptive behavior (Moffitt, 1993). The pattern of behavior leading to increasing behavioral difficulties may be different for females than males. For example, Chesney-Lind, Shelden, and Joe (1996) concluded that a notably high proportion of females first enter the juvenile justice system as runaways who seek to escape abuse and maltreatment in their home.

### **Individual Substance Use**

Evidence of the relationship between substance use and negative outcomes has been well documented in the literature. According to their results, students reporting high alcohol use were two to six times more likely to exhibit delinquent and violent behaviors and almost four times more likely to intentionally break or damage objects in contrast to students reporting little to no alcohol use (Komro, Williams, Forster, Perry, Farbakhsh, & Stigler, 1999). Taylor and Carey (1998) compared prevalence rates of conduct disorder, antisocial personality disorder, alcohol abuse, drug abuse, and somatization. They found significantly higher prevalence rates for all disorders among adolescent substance users and their families compared to adolescent controls and their families.

### **Community Factors**

Community factors such as economic deprivation and prevalence of community crime are associated with increased risk for behavior disorders (Preski & Shelton, 2001), whereas factors such as participation in meaningful extracurricular activities and relationships with adults in the community have been associated with reduced externalizing behavior. The neighborhood context may exacerbate or buffer adolescent behavior problems.

### **Peer Factors**

Lewin, Davis, and Hops (1999) found that boys who reported high levels of peer rejection were more likely to engage in delinquent behavior than boys reporting lower levels of rejection. For girls however, peer rejection was not significantly related to antisocial behavior. Mears, Ploeger, and Warr (1998) revealed that the presence of delinquent friends was a stronger predictor of male delinquency than female delinquency, suggesting that females may be less susceptible to negative peer influences than males. Similarly, Funk (1999) found that whereas a majority of male and female offenders experienced poor quality relationships, a significantly higher proportion of male offenders (80%) reported relationships with peers to be poor in quality compared to females (62%). When investigating the unique influence of gang membership on delinquent behavior, it has been found that among juvenile offenders, those who have been gang members had a significantly higher rate of delinquent behavior, were more committed to antisocial peers, were more tolerant of deviance, and were more likely to be viewed negatively by teachers than those who have not been involved in gangs (Jenson & Howard, 1998).

### School Factors

LeBlanc, Vallieres, and McDuff (1993) found that academic performance during early adolescence was the most significant predictor of criminal offending in late adolescence and adulthood. In a study designed to examine the relationship between delinquency and school dropout, Thornberry, Moore, and Christenson (1985) found that dropping out of high school was significantly associated with high rates of crime, even after controlling for age, ethnicity, and post-school experiences. In another study, Rankin (1980) found that students who perceived themselves having poor academic achievement and low likelihood of graduating were significantly more likely to engage in delinquent behavior than students reporting more positive views, irrespective of sex or grade level. In addition, involvement in extracurricular activities was found to have a low but significant inverse correlation with delinquency but only for students in earlier grades. Finally, analyses by gender revealed that females with negative attitudes toward school were significantly more likely to commit delinquent acts than males with similar attitudes.

A number of researchers have attempted to determine whether positive school factors impact the likelihood of students engaging in delinquent activity. A study performed by Jenkins (1997) focused on four components of school social bonding and their relation to rates of school crime, misconduct, and non-attendance. Analyses revealed that three components of school bonding—school commitment, attachment to school, and belief in school rules—were inversely correlated with all three types of school delinquency. Of note, educational commitment was shown to have the strongest inverse relationship with all three forms of delinquency.

### Sexual Activity

Research suggests that sexual activity usually occurs in sequence with delinquent behavior (Elliott & Morse, 1989) and that adolescents engaging in early sexual activity are at increased risk for pregnancy and sexually transmitted diseases (Koyle, Jensen, Olsen, & Cundick, 1989). Additional risk factors outlined by Reis and Herz (1989) include low rates of responsible contraception use observed in a sample of inner city adolescents.

### History of Trauma

Previous findings have linked sexual and physical abuse to higher rates of sexual activity, risky sexual behavior, teenage pregnancy, drug and alcohol use, and delinquent activities (Luster & Small, 1994). Whereas substantial evidence has highlighted the role of abuse as a major contributor to delinquency and other negative outcomes for both males and females, findings from a number of studies suggest that abuse may be particularly salient for females. Of those reporting previous sexual abuse in their study, Calhoun and colleagues (1993) found that females scored notably different on measures of suicidal risk, disordered eating, sexual risk taking, substance use, and delinquency compared to males. In addition, studies suggest that female survivors of sexual abuse are significantly more likely to be arrested, engage in property offenses, sell narcotics (Rhodes & Fischer, 1993) and engage in runaway behaviors (McCormack, Janus, & Burgess, 1996) compared to females who had not been sexually abused.

Jonson-Reid (1998) cited studies that support the link between witnessing violence and subsequent delinquent behavior. For example, a number of studies have found a significant and direct association between exposure to violence and violent behavior at home and at school. Exposure to violence at the community level has also been found to significantly predict aggression and antisocial behavior, as well as externalizing behavior problems in youths.

## ASSESSMENT OF BEHAVIORAL DISORDERS

The assessment of behavior disorders has focused on behavioral rating scales, which provides information to the assessor regarding the relative severity of behaviors when compared to same-aged peers in the general population. Though this information is important for diagnostic purposes, it is less useful in the allocation of treatment and supervision resources. In addition, rating scales are more useful for identifying youths already displaying clinical levels of problems rather than those youths at-risk for developing problems in the future. Gaoni and colleagues (1998) recommended examining the risk and protective factors associated with the development of behavior problems in addition to focusing more on primary prevention. Assessments that provide information regarding intervention needs before problems escalate are crucial to maximizing resources for prevention.

In terms of meeting the needs of males and females, rating scales attempt this by differentiating normative comparisons by gender. Though such norms do acknowledge that males and females display different levels of certain behaviors, they do not take into account different patterns of behavior that may occur for males versus females.

### The Current Study

Further research is essential in order to examine the utility of various assessments. Among youth with behavior problems, it is particularly important to examine high-risk youth involved with the juvenile justice system. In addition, it is crucial to further investigate important factors that are unique and those that are common across females and males. The current study examines the predictive validity of the SB ARA among a group of high-risk youths with behavior problems. Of particular interest is predictive validity among male and female youths.

## METHOD

### Participants

This study included a sample of 566 first-time juvenile offenders (age 10-18 years, average 14.94). Participants were 370 male (65%) and 196 female (35%) adolescents of whom 55% were Mexican American, 40% European American, and 5% other ethnicities. Participants were drawn from a county in Southern California and are a subset of a larger investigation funded through the Juvenile Justice Crime Prevention Act (Jimerson, Furlong, Kaufman, DeVera, Jai, & Turner, 2002). This subsample was created to ensure that all participants were first-time offenders, thus, exhibiting serious behavior problems that warranted involvement with the juvenile justice system.

### Measures

*Santa Barbara Assets and Risks Assessment.* The SB ARA (Jimerson, Sharkey, O'Brien, & Furlong, 2003; O'Brien, Jimerson, Saxton, & Furlong, 2001) is a semi-structured interview conducted with youths and their family members. The development of the SB ARA was informed by the transactional-ecological model of development, which recognizes that a child's current functioning is a product of previous experiences as well as various influences (e.g., individual, family, school, and community) within a child's current environment (Bronfenbrenner, 1986; Sameroff, 1975, 1989, 1993, 1995, 2000). Indicators were derived through several steps designed to capture those variables related to trajectories of increasing behavioral difficulties such as impulsivity, conduct disorder, and delinquency. Reviewing extant theories and empirical investigations related to developmental pathways toward increasing levels of delinquency, with particular attention to gender differences, was a specific focus

(O'Brien, Jimerson, Sia, Sharkey, & Furlong, 2002). In addition, ethnographic interviews were conducted in order to gain further insight. These interviews were especially important because the literature is particularly sparse regarding behavior disorders for Mexican American males and females, who are a significant portion of the school population in California. Finally, probation officers provided input regarding their experiences with youths on probation and feedback regarding the face validity of various indicators.

The SB ARA consists of 56 indicators within 12 domains: Parent-Child Relationships (e.g., degree of consistency and fairness when enforcing rules), Family Criminality (e.g., mother arrests), Family Substance Abuse (e.g., mother's substance use), Family Mental Health (e.g., father's mental health), Individual Factors (e.g., ability to control behavior and emotions when angry), Individual Criminality (e.g., number of prior referrals), Individual Substance Use (e.g., youth's substance use), Community Factors (e.g., relationship with an adult role model), Peer Factors (e.g., quality of peer influence), School Factors (e.g., educational goals), Sexual Activity (e.g., history of sexual intercourse), and History of Trauma (e.g., experienced sexual abuse). The SB ARA protocol is completed by a professional trained in its use, based on data compiled from a variety of available sources. The main source of information is a semi-structured interview with youths and parents, conducted using a glossary of terms and sample probes that has been developed by the authors (see Sharkey, 2003). In addition, professionals are encouraged to seek information from schools, community centers, extended family members, and other professionals involved with each youth. Preliminary examination has demonstrated that the SB ARA has adequate reliability (inter-rater  $> .85$ , internal consistency =  $.86$ ) and convergent validity (Behavioral and Emotional Rating Scale,  $r = -.552, p < .01$ , Ohio Youth Problem Severity scale,  $r = .397, p < .01$ , and the Orange County Risk Assessment,  $r = .715, p < .01$ ; Jimerson, Sharkey, O'Brien, & Furlong, 2004).

*Recidivism.* Recidivism, or youth reoffense, is monitored by the County Juvenile Justice System. Probation personnel maintain records of all youth offenses in a county-wide database. These data were provided for each youth in this study at 12 months post-intake assessment date. For purposes of this study, violent offenses, property offenses, drug offenses, all other felonies, and all other misdemeanors were counted as reoffenses, whereas status offenses (i.e., noncriminal offenses that apply only to youths under the age of 18) and violations of probation or court order were not counted as reoffenses. This was done in order to ensure that all offenses counted were criminal charges and not violations limited to minors such as curfew or smoking. Recidivism was coded as "0" if the youth had no reoffenses and a "1" if the youth had one or more reoffenses at any time in the 12 months that had passed since the initial intake assessment. At 12 months, 29% of youths reoffended, including 32% of males and 24% of females.

### Procedures

From August 2001 to December 2001, 1 of 3 males and 1 of 2 females entering probation for a first offense were randomly chosen for inclusion in the study. From January 2002 to August 2002 all first-time offenders eligible for an intake interview were used until 20 intakes were completed before the above criteria were implemented for selection. This change was implemented in order to ensure adequate sample size. Five juvenile justice officers at three sites across the county conducted the SB ARA structured interview during the regular intake evaluation for each youth who entered the probation system. The officers were available to conduct interviews in either Spanish or English. The history of trauma and sexual activity questions were provided in questionnaire format to the youths in order to allow privacy for response. In order to collect recidivism data, the probation department database

manager provided each youth's offense history for the 12-month period post-intake for each youth. This information is collected regularly as part of probation department standard procedures.

### Analyses

Logistic regression was used to determine which indicators were significantly associated with recidivism for males and females. Logistic regression is a special case of regression for predicting a dichotomous outcome and allows for nominal, ordinal, or continuous independent variables (Fan & Wang, 1999). Model chi-square provides the significance test for a logistic model, examining the null hypothesis that none of the independent variables are linearly associated with the logged odds of the dependent variable. Thus, it does not test whether every independent variable is significant (Garson, 2003). Nagelkerke's  $R^2$ , which varies from 0 to 1, is an estimate of multiple  $R^2$  that attempts to estimate the degree of variance in the dependent variable explained by the independent variables (Garson, 2003). ROC curve graphs were plotted in order to provide a visual representation of the overall prediction of the SB ARA.

## RESULTS

Predictive validity was assessed through a logistic regression analysis to examine the association between the items on the SB ARA and recidivism. The combination of all items from the SB ARA significantly predicted recidivism for females,  $\chi^2 = 139.18$ ,  $df = 55$ ,  $p < .000$ . As indicated by Nagelkerke's  $R^2$ , 100% of the variance in recidivism scores was explained by the SB ARA items for females, with an overall correct classification of 100%. In addition, the combination of all items from the SB ARA significantly predicted recidivism for males,  $\chi^2 = 112.62$ ,  $df = 55$ ,  $p < .000$ . As indicated by Nagelkerke's  $R^2$ , 56% of the variance in recidivism scores was explained by this combination of indicators for males, with an overall correct classification of 83%. Additional logistical analyses using only those items yielding significant Spearman's Rank Order correlations were completed separately in order to delineate the most powerful individual indicators for females (Table 1) and males (Table 2).

**Table 1.**  
*Twenty-one Significant Predictors of Recidivism at 12 Months among Females (n = 162)*

Variable	<i>b</i>	<i>SE</i>	<i>e<sup>b</sup></i>
Communication	.509	.254	1.664
Emotional Support	-.156	.334	.855
Monitoring	.160	.239	1.174
Discipline	-.251	.279	.778
Boundaries/Roles	.021	.310	1.021
Mother Arrests	.476	.231	1.609
Father Mental Health	.321	.361	1.378
Self-Effectiveness	-.320	.258	.726
Anger Management	.030	.251	1.030
Self-Control	.007	.249	1.007
Types of Crime	.630	.313	1.877
Running Away	-.088	.364	.916
Youth's Alcohol Use	.343	.340	1.410

**Table 1 continued.**  
**Twenty-one Significant Predictors of Recidivism at 12 Months Among Females (n = 162)**

Variable	<i>b</i>	<i>SE</i>	<i>e<sup>b</sup></i>
Youth's Drug Use	-.090	.296	.913
Peer Influence	.306	.213	1.358
Friendships	-.059	.238	.943
Peers' Substance Use	.616	.264	1.851
Current Attendance	.061	.219	1.063
Sexual Activity	-.301	.302	.740
Witnessed Violence in the Home	.537	.387	1.710
Physical Abuse	.093	.430	1.097
Constant	-10.1661	2.499	

$R^2 = .430, \chi^2 = 55.355, df = 21, p < .001$

**Table 2.**  
**Twenty-eight Significant Predictors of Recidivism at 12 Months among Males (n = 300)**

Variable	<i>b</i>	<i>SE</i>	<i>e<sup>b</sup></i>
Communication	-.175	.132	.840
Monitoring	.168	.160	1.183
Discipline	-.121	.193	.886
Boundaries/Roles	-.019	.184	.981
Father Mental Health	.898	.316	2.455
Hyperactivity	.075	.127	1.078
Self-Effectiveness	.264	.168	1.302
Anger Management	.245	.136	1.278
Self-Control	.068	.168	1.070
Mental Health	-.019	.227	.981
Number of Prior Referrals	.129	.204	1.137
Running Away	.597	.283	1.817
Age at First Referral	.266	.244	1.304
Youth's Alcohol Use	-.034	.214	.966
Youth's Drug Use	.033	.180	1.034
Use of Free Time	-.042	.133	.959
Peer Influence	-.088	.147	.916
Friendships	-.090	.202	.914
Peer Communication	.249	.194	1.283
Gang Membership	.169	.223	1.184
Special Education	.079	.178	1.082
Relationship with Adult at School	.177	.128	1.194
Educational Goals	-.011	.189	.989

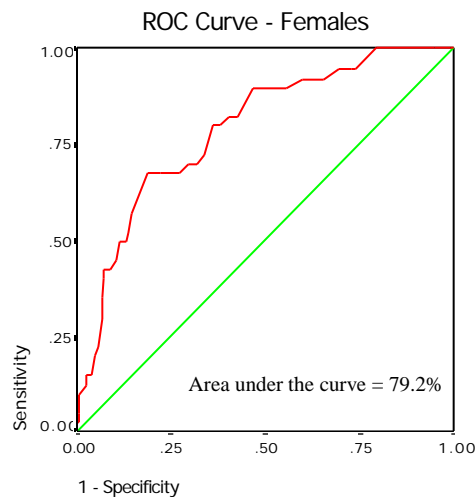
**Table 2 continued.****Twenty-eight Significant Predictors of Recidivism at 12 Months among Males (n = 300)**

Variable	<i>b</i>	<i>SE</i>	<i>e<sup>b</sup></i>
Progress Toward Graduation	-.251	.160	.778
Current Attendance	.327	.137	1.387
Grades	.219	.167	1.244
Suspensions	.032	.131	1.033
Expulsions	.416	.229	1.517
Constant	-10.829	1.783	

$R^2 = .303$ ,  $\chi^2 = 72.607$ ,  $df = 28$ ,  $p < .001$

ROC curve graphs were plotted in order to provide a visual representation between the true-positive rate (sensitivity) and the false-positive rate (100% minus specificity; specificity is the true negative rate) when using a combination of SB ARA indicators to predict recidivism for males and females (Sharkey et al., 2003). For the ROC curve analysis, SB ARA indicators significantly associated with recidivism, as appropriate by gender, were summed to derive the test variable. Thus, the higher the computed SB ARA total score, the more risks versus assets were present.

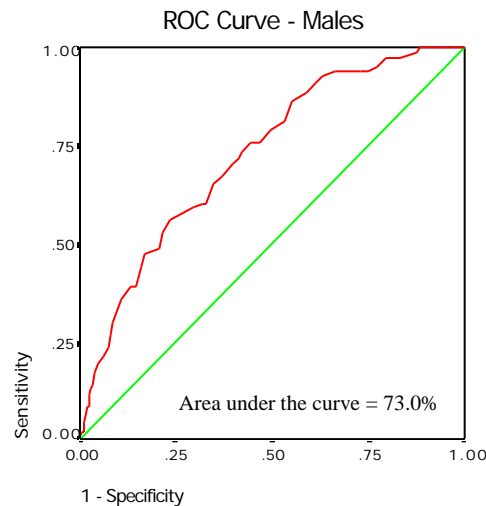
The ROC curve for the model predicting female recidivism is plotted in Figure 1. The area under the curve for the female sample is .792 (95% confidence interval = .714 to .870,  $S_x = .040$ ), which indicates that a randomly selected individual from the group of females who reoffended had a higher score on this combination of research-based indicators than a randomly selected individual from the group of females who did not reoffend 79.2% of the time. As the confidence interval indicates, using this set of SB ARA indicators to predict recidivism was valuable for the female adolescents.

**Figure 1.**

**ROC Curve for Female Sample: Sensitivity and 1.00-Specificity for Each Criterion**



The ROC curve for the model predicting male recidivism is plotted in Figure 2. The area under the curve for the male sample is .730 (95% confidence interval = .671 to .789,  $S_x = .030$ ), which indicates that a randomly selected individual from the group of males who reoffended had a higher score on this combination of research-based indicators than a randomly selected individual from the group of males who did not reoffend 67.1% of the time. As the confidence interval indicates, using this set of SB ARA indicators to predict recidivism was also valuable for the male adolescents.



**Figure 2.**  
*ROC Curve for Male Sample: Sensitivity and 1.00-Specificity for Each Criterion*

## DISCUSSION

This study examined the predictive validity of the SB ARA with a population of first-time high-risk adolescents (i.e., juvenile offenders). Results indicated that the SB ARA has adequate predictive validity when used with this population of European American and Mexican American youths. Furthermore, the SB ARA was able to predict patterns of recidivism for both males and females. Feedback from probation professionals has indicated that the SB ARA has been a useful tool for better understanding the environmental influences, both negative and positive, affecting the youths with whom they work. In addition, probation professionals reported that participating youths and their families responded positively to the focus on their strengths as well as their risks.

Previous literature has highlighted the importance of considering gender when examining pathways of delinquency and behavior problems among adolescents (Chesney-Lind, 2001; Chesney-Lind & Brown, 1999; Funk, 1999). It is important to note that separate prediction models were developed for females and males considering those factors that were significantly related to recidivism for each group. The results of the analyses yielded a different set of indicators that predicted recidivism for males and females, supporting the hypothesis that there are some unique and other common indicators predicting recidivism for males and females. School psychologists and other professionals working with females engaged in delinquent activities would benefit from attending to particular domains that appear highly associated with subsequent delinquency. For instance, those areas that emerged as espe-



cially important in this study included; communication with family, emotional support from family, parental monitoring, discipline strategies in the home, boundaries and roles in the family, witnessing violence in the home, whether the mother had ever been arrested, father's mental health, the youth's sense of self-effectiveness, individual anger management skills, self control skills, the type of crime, the experience of running away, whether the youth used alcohol or drugs, peer influences, friendships, school attendance, sexual activity, and whether the youth experienced physical abuse.

The Santa Barbara Assets and Risks Assessment has emerged as a valuable tool for professionals to identify the needs of high-risk youths. Through conducting a semi-structured interview with the youth and family, school psychologists and other professionals systematically explore salient factors associated with youth adjustment and behaviors. For each of the factors, exploring the relative positive (assets) or negative (risks) features provides important information to professionals regarding what particular strengths the youth/family may incorporate in an effort to facilitate healthy and pro-social behaviors. Because the SB ARA factors include individual, family, peers, school, and neighborhood elements, professionals gain insights regarding relative assets and risks that may be influencing the behaviors of the youth. Likewise, better understanding the relative assets and risks in the life of a youth is important in determining appropriate services or interventions to simultaneously address problems and promote strengths for a comprehensive treatment. For example, understanding that a student who abuses drugs and alcohol, has been diagnosed with Attention Deficit/Hyperactivity Disorder, and has difficulty with self-control also has open communication with parents, an adult role model in the community, and goals of attending college allows for a far more appropriate and targeted intervention by utilizing a student's resources within a treatment program.

The variables included in the SB ARA were designed to be appropriate for understanding the ecology of youths in multiple settings (e.g., school, community, mental health, and juvenile justice). The SB ARA has particular promise in aiding school psychologists to better understand the nature of the family, peer, and community variables impacting youths with behavioral difficulties, areas that are neglected in currently available assessments. It is also particularly notable how many of the significant indicators among males were related to behaviors in the school context (e.g., attendance, grades, educational goals).

Additional studies should focus on the utility of the SB ARA with children before their behavioral problems escalate to delinquent activities. In addition, future research should examine the influence of ethnicity on results. Finally, recidivism is a very specific outcome to measure. Though recidivism is a primary outcome of interest in the juvenile justice system, it represents a narrow view of the potential consequences of intervention and ignores positive youth development. Additional outcomes, such as mental health, school completion, and job satisfaction should be examined as well. Though this study selected out several indicators that predict recidivism, it is likely that each different outcome is predicted by a diverse set of indicators.

## CONCLUSION

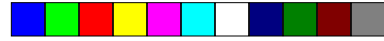
This study represents a positive step forward with respect to understanding numerous factors associated with behavior problems among males and females. As demonstrated in this study through the investigation of the SB ARA, the systematic application of findings derived from empirical research examining risk factors and resiliency has the potential to enhance the assessment of adolescents involved in delinquent activities. It is proposed that the SB ARA provides a promising assessment of both assets and risks among many salient developmental dimensions that is also gender sensitive and aims to provide a more comprehensive understanding of youths displaying behavior problems than norm-referenced surveys.

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## Strength-Based Assessment of Adolescents Who Abuse Drugs: Implications for Helping High-Risk Youth

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Strength-based assessments were designed to assess more completely the outcomes for youth having academic and behavioral problems in the schools. This approach has gained appeal among those working with adolescents who have serious behavior problems, such as those involved in drug use and related delinquent behavior. Traditional assessment procedures provide an overwhelmingly negative picture of these youths and the delineation of these deficits do not contribute to effective treatment planning. This paper describes the use of two strength-based assessment procedures with adolescents who have serious drug problems. The adolescents in this study were participants in a drug treatment court, part of a growing national trend to serve adolescents with non-violent, drug-related problems in their least restrictive environment, allowing them to remain at home and to attend their neighborhood schools. Different methods of using strength-based assessments are examined. In Study 1, assessments are used to identify students' competencies and determine which of these factors were related to youth outcomes. In Study 2, a case study is presented in which strength-based assessments are used at the individual level to develop specific treatment plans. The current state of the field, and future challenges for effective utilization of the strength-based approach to assessment and intervention, are discussed.

Key Words: Strength-Based Assessment, Adolescents, Drug Problems, Treatment Plans

Strength-based assessment has been promoted as a means to obtain a more accurate, well-rounded picture of youth experiencing academic or behavioral problems in the schools (Rhee, Furlong, Turner, & Harari, 2001). This form of assessment is part of a larger strength-based approach for working with children and families (e.g., Dunst, Trivette, & Mott, 1994). This approach has been advocated for school psychologists in order to increase the engagement of children and families in their own interventions, and, in so doing, to increase the likelihood of school success (Powell, Batsche, Ferro, Fox, & Dunlap, 1997).

While the concept of identifying a youth's assets as well as deficits has strong face validity, the practical value for school psychologists will depend on whether or not the knowledge obtained from these assessments results in practices that improve student outcomes. Different ways of using strength-based assessments have been proposed in the literature. For example, it has been suggested that the information obtained through strength-based assessment can be used to increase positive expectations for the child; to empower the child and his or her family to take more responsibility for the child's treatment; to improve parent-professional relationships; to establish treatment goals; and to track student progress (Epstein, Dakan, Oswald, & Yoe, 2001; Rhee et al., 2001). The strength-based approach to assessment also encourages the establishment of non-traditional goals, including increased independence from service providers (including school psychologists) and a higher quality of life (Powell et al., 1997).

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Initially, strength-based assessment emerged as an alternative approach to the traditional, deficit-based assessment used to identify students' weaknesses and qualify them for special education. While these traditional assessments identified students' academic needs, they presented limited information on the child's "assets," knowledge of which could also contribute to their educational plans (Reid, Epstein, Pastor, & Ryser, 2000). Although strength-based assessments were initially developed to supplement the educational information available for students in special education, more recently the principles of strength-based assessment have been applied to adolescents at risk for school failure, including those with substance abuse problems (MacKinnon-Lewis, Kaufman, & Frabutt, 2002). Identification of strengths in youths who are beginning to use drugs and engage in other delinquent behaviors may serve as a preventive measure, interrupting the need for more intensive interventions and out of school placements. This article will consider the application of strength-based assessment to youths with substance abuse problems. Different methods for determining strengths, and alternative means for using this information, will be discussed.

### **What is Strength-Based Assessment?**

Epstein and Sharma (1998, p. 3) provide a commonly cited definition of strength-based assessment, as the "measurement of emotional and behavioral skills, competencies and characteristics that create a sense of personal accomplishment, contribute to satisfying relationships with family members, peers and adults, enhance one's ability to deal with adversity and stress, and promote one's personal, social and academic development." The authors used this definition in their development of the *Behavioral and Emotional Rating Scale* (BERS), a strength-based assessment that covers intrapersonal strengths, family involvement, intrapersonal strengths, school functioning and affective strengths. While the BERS is intended to be comprehensive with regard to covering the range of potential youth strengths, it is still left to empirical studies to define how specific student strengths are related to desired student outcomes.

Researchers have identified several general, intra-personal factors that support resilience in children and adolescents under a variety of adverse circumstances. These factors include intellectual ability, positive temperament, self-efficacy, achievement orientation, high expectations, and engagement in productive activities (Doll & Lyon, 1998). In addition, resources external to the child can serve as protective factors, including relationships with supportive adults, high expectations from others, and opportunities to engage in meaningful activities. The research on risk and resilience suggests areas in which to start to examine individual youth assets.

One of the assumptions of strength-based assessment is that every child and family has strengths (Epstein et al., 2001). For youths engaged in drug use and other criminal activity, however, identification of personal strengths, as well as supports in their natural communities, may present particular challenges.

### **Application of Strength-Based Assessment to Students Engaged in Drug Abuse and Related Delinquent Behaviors**

The deficiencies of youth involved in drug abuse have been well delineated in the literature (Rounds-Bryant, Kristiansen, & Hubbard, 1999). While many adolescents come to the attention of adults (e.g., educators, treatment providers, or the juvenile justice system) because of their drug abuse, these youths typically present with a myriad of psychosocial problems, including educational failure, poor self-esteem, depression, and few social supports (Neighbors, Kempton, & Forehand, 1992). It is clear that there are significant differences among adolescents who engage in drug use. Nevertheless, little is known about the strengths of these youths or the ability of practitioners to assess and utilize these assets.



There are a number of reasons for school psychologists to use strength-based assessment procedures for youths with drug abuse and related problems. First, there is more information about practices that do not work with this population than about practices that do (MacKinnon-Lewis et al., 2002). This has resulted in changes in juvenile justice policies. In the past, youths caught engaging in criminal activities, including drug use, were often placed outside the home and enrolled in schools that separated them from the general education population. However, studies found that youths who graduated from these programs tended to have poorer outcomes in terms of recidivism than did youths who received treatment while remaining in their communities. Thus, there has been a movement within the juvenile justice system, through juvenile drug courts and associated outpatient programs, to work with these youths while remaining in their home environments (Cooper, 2002). This also means serving more of these adolescents within their neighborhood schools, a circumstance for which school psychologists need to be prepared.

Second, studies on adolescents with drug abuse problems indicate that clinical outcomes are associated with the presence of personal strengths and other protective factors. For example, Latimer, Newcomb, Winters, and Stinchfield (2000), in a study of 225 juveniles in residential and nonresidential treatment, found that adolescents who had at least one protective factor (e.g., social or school connectedness, goal directedness, peer abstinence, or absence of psychological disturbance) were more likely to maintain treatment gains. Similarly, Dobkin, Chabot, Maliantovitch and Craig (1998) found that adolescents who completed treatment had family members who were more concerned with personal growth than did those who dropped out. Family involvement was also the key predictor of treatment outcomes in a study by Friedman, Terras, and Kreisher (1995). Finally, Williams, and Chang (2000) conducted a review of studies of juvenile substance abuse treatment programs. Factors related to successful outcomes included low pretreatment substance use, successful school performance, and having the support of peers and parents who themselves did not use drugs.

One of the challenges in serving these adolescents is that they rarely seek help for themselves. During the early stages of drug use they avoid help, and once the schools or other systems identify their problems they are forced to obtain assistance.

Several investigators (e.g., Benson, Roehlkepartain, & Sesma, 2004; Clark, 1996; Nissen, 1999) advocate strength-based approaches for working with adolescents who are in the juvenile justice system and who are resistant to change. These approaches vary considerably. Benson et al., for example, examine the relationship of the Search Institute's 40 "Developmental Assets" (e.g., external and internal strengths and supports, including family support, feelings of empowerment, boundaries and expectations, and a commitment to learning) to alcohol and drug use. They report that youths with fewer than six Developmental Assets are more likely to use, and that limited boundaries and expectations from family, peers, school and neighbors, are particularly associated with drug and alcohol problems. Although the authors do not test specific models of treatment, their recommendations are to build assets through a variety of means to prevent and remediate these problems.

Clark (1996), on the other hand, recommends a brief, strength-based assessment consisting of five open-ended questions as part of a solution-oriented approach to treatment. These questions include, "When have you not had this problem?" "If a miracle happened overnight, and your problems were gone, how would things look?" "And, how have you managed to keep your problem from getting worse?" He proposes to follow this assessment with brief, solution-focused counseling that would build on the youth's responses. While case examples are presented, large scale studies on the effectiveness of this approach are lacking.

The utility of these strength-based assessment approaches is related to their ability to identify factors that can be used to inform practice and improve child outcomes. Formal assessments can be

used to monitor and evaluate specific interventions, while informal strength-based assessments may have greater clinical utility for the individual child. The following group study and case study demonstrate the use of both formal and informal strength-based assessment procedures. The first study focuses on the use of strength-based assessment to evaluate a program, whereas the second case study demonstrates the utility of informal strength-based assessments for treatment planning.

## **STUDY 1 USING STRENGTH-BASED ASSESSMENT FOR PROGRAM EVALUATION OF A JUVENILE DRUG COURT**

### **Method Study 1**

#### **Participants**

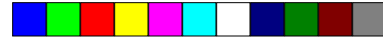
Data are presented on 215 adolescent participants in a Juvenile Drug Court (JDC) treatment program. Participation in the JDC was voluntary. Adolescents were eligible for the program if they had a drug-related offense and a history of moderate to severe substance abuse. Juveniles charged with a violent offense, or those with prior convictions for violent offenses, were excluded. All adolescents entering the JDC during its first 18 months of operation were included in this study.

In terms of demographic characteristics, 70% of the sample was male, while ethnicity was largely Latino (57%) and European American (36%), with 3% each from African American and Asian American groups, and 1% from other ethnic groups. The age range was 13-17— 32% were 17, 34% were 16, 22% were 15, 11% were 14, and 1% were 13 years of age. Adolescents averaged four years of prior drug use, with most reporting the use of marijuana and alcohol. A majority (58%) had two or more criminal offenses prior to entering the JDC.

#### **Program**

Juvenile drug treatment courts were developed to respond to the growing national problem of adolescent substance abuse. Currently, there are over 200 juvenile drug courts in the United States (Cooper, 2002). These programs involve the collaboration of multiple service agencies, including the schools, probation, treatment providers, and the juvenile court system. The purpose of these courts is to reduce recidivism by providing outpatient treatment and court supervision for youths charged with drug-related, non-violent criminal activities. Efforts are made to serve the youth in their least restrictive environment, allowing them, whenever possible, to remain at home and in their communities. These programs emphasize interventions that go beyond drug and alcohol treatment to include the development of personal and educational skills. This requires a multi-disciplinary approach, and multi-agency involvement, with school performance a key component of most treatment plans. Thus, while organized outside of the school system, these programs have significant implications for school psychologists. This process also increases the number of students with substance abuse and related behavior problems requiring services in their community schools.

The JDC in this study had a five-phase outpatient treatment program, lasting 12-15 months. In addition to court appearances and supervision, treatment included drug testing, attendance at relapse prevention groups and individual counseling, home visitations by trained caseworkers, school attendance, and participation in sober group activities. Graduation was based on meeting treatment goals including 90 days of continuous sobriety, regular attendance of program meetings and school, and behavior changes that reflect their ability to remain in the community.



## Measures

All assessment information collected was intended to be useful both for the purposes of individual treatment planning and for evaluation of the program itself. Three assessment instruments, the *Adolescent Addiction Severity Index* (AASI; 2000), the *Youth Self-Report* (YSR; Achenbach, 1991b), and the *Family Adaptability and Cohesion Scales-II* (FACES-II; Olson, Portner, & Bell, 1982) were administered to the youths, and two assessments, the *Child Behavior Checklist* (CBCL, Achenbach, 1991a) and the FACES-II were administered to their parents. Taken together, the assessments provided a profile reflecting both individual and family strengths and challenges. With the exception of the AASI, these measures allowed comparison of parent and child perceptions of the youth's and family's strengths and weaknesses. The strength-based aspects of these measures are delineated below.

The AASI is a semi-structured interview that offers a global perspective of the adolescent's functioning, including family composition and history, educational status, and extent of social support. It is one of several scales adapted from the adult *Addiction Severity Index* (ASI; McLellan et al., 1992). While there are currently no published studies on the AASI, the ASI has been studied extensively, yielding strong reliability and validity (Cacciola, Koppenhaver, McKay, & Alterman, 1999; Hodgins & El Guebaly, 1992; Leonhard, Mulvey, Gastfriend, & Shwartz, 2000; Stoffelmayr, Mavis, & Kasim, 1993). Similar to the ASI, the AASI assesses the respondent's functioning across seven life areas: medical, educational, family/social, substance use/abuse, legal, and psychiatric. Scores are acquired for each domain, assessing the need for treatment in that area. Conversely, school psychologists, and other treatment providers are able to identify areas in which intervention is not needed.

The CBCL and the YSR are surveys that provide measures of social competence, in addition to identifying areas of average functioning, and clinical syndromes. The youths' parents respond to the CBCL, while the adolescents respond to the YSR. Subscale scores indicate whether the youth or the parent rate the youth's functioning as within the average, borderline clinical, or clinical range compared to other children the same age.

The CBCL is a widely used measure in research (Achenbach, 1991a). The questionnaire consists of 112 items. The items are rated either "not true," "somewhat or sometimes true," or "very true or often true." Test-retest reliability has been reported at .93, with parental agreement at .76 (Achenbach, 1991). Ratings are obtained for internalizing problems (withdrawn, somatic complaints, anxious/depressed, thought problems, attention problems) and externalizing problems (social problems, delinquent behavior, aggressive behaviors). In addition, parental perceptions of the youth's school, social, and overall competencies are obtained. These scores are based on responses to questions on the amount and quality of the child's participation in sports, activities and organizations; the ratings on how well the child gets along with siblings, parents, and peers; and how well he or she is doing in school. In addition, the parent is asked to describe the "best things" about the youth, a source of information vital to the strength-based interpretation.

The YSR is the self-report version of the CBCL (Achenbach, 1991b). The assessment consists of the same 112 items, and provides scores for the same domains. It also includes an open-ended question inquiring about the youth's self-perceived strengths. Unlike the CBCL, the YSR includes a subscale for self-destructive behavior and an activities competency subscale, instead of the school performance subscale. The test-retest reliability is reported at 0.65 for youths ages 12 to 14 years and 0.83 for youths ages 15 to 18 (Achenbach, 1991b).

The FACES II, a 30-item questionnaire, was administered to both parent and child to identify strengths in the family system. The FACES II assesses family connectedness (cohesion) and flexibility (adaptability), both of which are considered key to healthy family functioning. Scores for family cohe-

sion are categorized into four domains: “enmeshed,” “connected,” “separated,” and “disengaged.” Scores for family adaptability are also categorized into four domains: “very flexible,” “flexible,” “structured,” and “rigid.” For both subscales, the middle two categorizations are considered to reflect healthier family interactions. Internal reliability for the FACES – II is reported at 0.91 for the cohesion scale and 0.80 for the adaptability scale (Olsen, Sprenkle, & Russell, 1979).

### Procedure

Mental health practitioners administered the AASI, CBCL, FACES-II, and YSR after the court approved a youth’s participation in the program. The unscored protocols were sent to the University of California evaluators, who scored them and prepared a report clarifying the client’s areas of clinical strengths and weaknesses that was sent to the treatment providers. The same assessments were re-administered after the youths were in treatment for 12 months. In addition, probation officers reviewed school records, and provided records of the clients’ criminal activities, including new bookings, convictions and jail days, during the program.

## RESULTS STUDY 1

First, descriptive statistics were used to develop an understanding of the range of students’ strengths and weaknesses. Changes in behaviors were noted through the use of paired *t*-tests on the re-assessment data 12 months into treatment. Finally, analysis of variance statistical tests were used to determine which of these factors were associated with program graduation.

Table 1 reflects the academic background of participants. As noted, approximately half of the youths were attending regular public schools. While a majority of youths had some types of behavioral problems at school, as demonstrated by their suspensions, there was a range in academic performance. Further, only one-third of students reported problems requiring special education. From a strength-based perspective, the data suggest that many of the students had academic strengths that could be utilized.

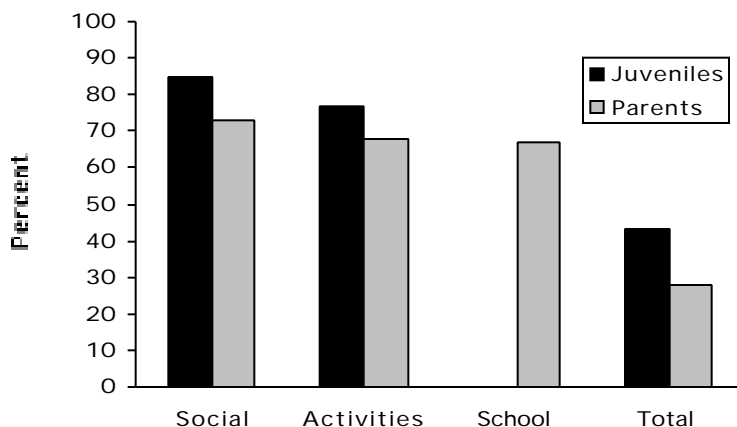
**Table 1**  
*Educational Functioning of Adolescents in JDC*

	<i>N</i>	%
Type of school <sup>1</sup>		
Special School	90	47
Public School	91	48
Not Attending	9	5
Academic Performance <sup>1</sup>		
Above Average	10	5
Average	70	37
Below Average	108	57
Problems <sup>2</sup>		
Suspended	177	90
Failed Classes	74	38
Special Education	67	34
Difficulty Reading	47	24
Difficulty Writing	35	18

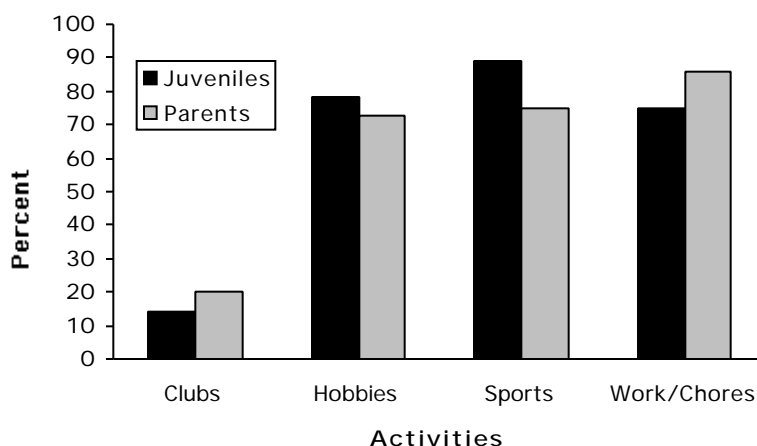
<sup>1</sup> Data obtained from school records (teacher reports)

<sup>2</sup> Data obtained from the AASI (self-reports)

Figure 1 notes some of the other competencies for the youths as self-reported and reported by their parents. While the adolescents reported higher levels of competence for themselves than did their parents, both groups were aware of the youths' competencies. As shown in Figure 2, many of the adolescents and their parents reported that the youths had hobbies, including music, riding bikes, reading, computers, skateboards, and videogames; that they engaged in sports, such as basketball, football, swimming, and cheerleading; and that they did chores, ranging from babysitting, to washing dishes, cleaning the house, and taking out the trash. It was also the case that a majority of the parents (67%) reported that their children had serious externalizing behavior problems. However, reporting only the deficit portion of the assessment, as is sometimes the case, would have limited awareness of the youths' assets, and prohibited their consideration in the development of interventions.



**Figure 1.**  
*Youth Competencies as Indicated by the Youths and Their Parents on the YSR and CBCL*



**Figure 2.**  
*Extracurricular Activities Noted by the Youths and Their Parents on the YSR and CBCL*

Of the 119 juveniles who had exited the program at the time this report, 27% graduated, having met all treatment goals. At the end of 12 months in the program, both the parents of the graduates, and the graduates themselves, saw increased strengths in different aspects of their lives. Graduates were reported by their parents as showing significantly higher school competencies,  $t(16) = 2.8, p < .05$ , and total competencies,  $t(13) = 2.5, p < .05$ , than they had at intake. Adolescents who graduated perceived their families as more cohesive at the end of 12 months in treatment than they had been at intake,  $t(24) = 2.18, p < .05$ .

Using graduation status as an independent variable, analysis of variance statistics were conducted to determine which strengths and weaknesses were associated with this outcome. Graduation status was associated with the *absence* of serious problems and the *presence* of specific strengths. For example, relative to unsuccessful adolescents, graduates had fewer externalizing behavior problems at intake as assessed on the CBCL,  $F(1, 117) = 6.19, p < .05$ , and had fewer prior criminal detentions and arrests with less time spent in detention than had nongraduates,  $F(1, 117) = 7.41, p < .01$ . On the positive side, graduates reported more family and social support than did nongraduates at intake as assessed by family composite scores on the AASI,  $F(1, 117) = 4.0, p < .05$ .

In terms of school factors, adolescents who were doing better in school were also more likely to finish the program. Over 61% of graduates were attending regular public school at the time they entered treatment, compared to only 39% of nongraduates  $\chi^2(N = 119) = 6.1, p < .05$ . More nongraduates reported difficulties with reading (25%) than did graduates (7%),  $\chi^2(N = 119) = 5.82, p < .05$ . Nongraduates were also more likely to have a diagnosed learning disability (21%) than were graduates (13%), although this difference was not statistically significant.

## DISCUSSION STUDY 1

These analyses found that family support, personal strengths, and school functioning, were associated with the successful completion of treatment. Students who had family, behavioral and school-based strengths were more likely to succeed and graduates were likely to show improvements in these areas. This information was used to refocus program efforts to increase family involvement and school engagement overall. However, there are many ways in which families can support or hinder their children; further, school engagement can be affected in a number of different ways, depending on the strengths and interests of the students. Thus, assessments were added to the protocol to provide a more specific picture of students' strengths in these areas, for the purposes of individualized treatment planning in these areas.

## STUDY 2 A CASE STUDY ON THE USE OF STRENGTH-BASED ASSESSMENT TO DEVELOP INTERVENTIONS

The initial assessment procedures were revisited after the first year of the program. While the original procedures were used to identify factors associated with program success, such as family support and school functioning, the measures themselves were too broad to provide specific direction on how to improve outcomes for specific adolescents in the program. For example, while many of the youths were not experiencing school success, it was unclear from the earlier assessments how to help them become more engaged in the schools. In an effort to increase the rate of success, specific measures of the youths' strengths were added, with the goal of using this information to improve interventions and outcomes.



Additional formal (standardized) and informal strength-based assessments were administered by an intake worker. At the outset, two “facilitated assessment” meetings were scheduled with each minor. The first meeting focused on values clarification with the goal of helping the minor elicit his or her own values, personal qualities, and future plans. The second meeting revolved around motivation for change, and involved asking the minor to state what he or she was willing to do to move from the present situation to his or her ideal future image (elicited at a values clarification meeting). This procedure was designed to help the youth develop a collaborative relationship with the staff and adopt more of a solution-oriented focus to their program.

Following these meetings there was a lengthy (1 1/2 to 2-hour) individual interview with the minor. The questions in this semi-structured interview were designed to assess the presence of the 40 Developmental Assets identified by the Search Institute as related to positive youth outcomes (Search Institute, 2003). These assets fall into eight domains: positive identity (e.g., “What are the most important things in your life?”); constructive use of time (e.g., “How do you spend your free time?”); family support (e.g., “Who do you have the strongest connection with among adults?”); commitment to learning (e.g., “How involved are you in school?”); empowerment (e.g., “How would you like to get involved in your community?”); social competencies (e.g., “How easy is it for you to make decisions?”); boundaries and expectations (e.g., “How are rules enforced in your house?”); and positive values (e.g., “What are the equalities you look for in a friend?”). While the Institute has developed its own surveys, the questions used here were created by the program staff, and designed to be integrated within a broader intake assessment. This aspect of the assessment was used to identify the presence of the student’s assets, which was then added to the clinical report on each client.

In addition, the *How I Think* questionnaire (HIT, Barriga & Gibbs, 1996) was administered. The HIT identifies the presence or absence of distorted cognitions. The adolescent records his or her level of agreement with 54 statements (including “It’s OK to tell a lie if someone is dumb enough to fall for it”), with his or her responses categorized as “self-centered,” “blaming others,” “minimizing/mislabeling,” and “assuming the worst.” These types of distortions have been associated with delinquent behavior. It has also been suggested that altering these cognitions may affect delinquent behavior (Liau, Barriga, & Gibbs, 1998).

Finally, the *Strengths and Difficulties Questionnaire* (SDQ; Goodman, 1997) was administered to the youths. The SDQ is similar in concept to the YSR and CBCL, but much shorter, containing only 25 items and fewer subscales. Of the five scales, four measure problem areas (e.g., emotional symptoms, conduct problems, hyperactivity, peer problems) and one measures prosocial behavior.

An interview was also conducted with the minor’s parental figures in which they were asked to describe the strengths of the minor, as well as their family strengths.

At the end of this assessment process, a clinical report was developed that integrated the findings from these strength-based assessments. This report was able to speak to the client’s motivation for change (from the Facilitated Assessment); their personal, social and family assets (from questions regarding the Developmental Assets); their presence or absence of cognitive distortions (from the HIT); and their capacity to identify areas of personal strength and weakness (on the SDQ). In addition, the process itself was viewed as therapeutic in that the clients and the assessor discussed the youth’s strengths, setting a positive framework for treatment.

## CASE SUMMARY STUDY 2

A brief case study of J.S.<sup>1</sup>, a 17-year-old European American male who entered the JDC after five years of drug use, is presented. J.S. had five years of serious drug use and related behaviors before he

<sup>1</sup> Identifying information was altered to protect the youth’s confidentiality.

came to the JDC. The minor's low sense of self-esteem prevented him from identifying any personal strengths on the Assets interview. The *How I Think* questionnaire revealed no distorted or antisocial cognitions on the part of the minor. The assessment of his motivation to change revealed that he was ambivalent about stopping his drug use. However, he was performing adequately at school and had a future aspiration to attend college. Finally, although his single father had not been successful in controlling his son's behavior to date, this was the one affective relationship that J.S. trusted. Thus, the importance of this relationship to J.S. could be drawn on in treatment efforts.

The information gathered at intake was used to identify J.S.'s strengths, although he had been unable to identify these strengths on his own. From information obtained during the facilitated assessment meetings, it was clear that he was not ready to stop using substances, although he wanted to decrease his use. This assessment also found that his future goals included high school graduation and attendance at college. The questions based on the Developmental Assets indicated that he did not identify with his drug-using friends, and that he had a strong connection with his father. The HIT showed J.S. to have an absence of cognitive distortions. His clarity of thinking, the connection of trust with his father, and his desire to achieve his future goals led the case manager to think that this minor could benefit from a structure that taught him self-regulation and enhanced his self-esteem while offering a new possibility for sobriety.

Within this framework, recommendations were made to the treatment team, which included specific goals for the school psychologist. The school psychologist was encouraged to increase involvement with the father and to use this connection to monitor the adolescent's academic progress, as well as to assist the father in maintaining supervision over the youth's activities. This involvement could be tied to the minor's goal of attending college. Further, the school was made aware of the youth's leadership among his peers, as he had a talent for procuring free drugs and alcohol for himself from his friends. Providing the youth with supervised leadership activities could, potentially, redirect some of the energy that was going into drug related activities.

These recommendations were partially utilized. J.S. and his father continued to meet in therapy and began to work together more effectively. The knowledge that J.S. wanted to graduate high school and attend college was used as motivation both for him and for the school personnel working with him. J.S. remains in treatment, with occasional relapses.

### GENERAL CONCLUSIONS

Strength-based assessments can be used to identify assets in youths who present with a myriad of drug and alcohol related psychosocial problems. As exemplified in this paper, a wide range of formal and informal assessments can be used to assess individual strengths, as well as to identify strengths associated with important school and community outcomes. Traditional, standardized assessments like the CBCL can be used in a strength-based manner to identify student assets associated with successful outcomes. Identification of these assets, in turn, can be used to develop global treatment strategies, for example, to increase parent involvement or improve school performance. The more detailed strength-based assessments, such as the interview items on the Developmental Assets and the facilitated assessments of student motivation conducted here, can promote shared goals and provide greater specificity with regard to the youth's needs. In tandem, these approaches can facilitate both general and specific goals in treatment.

There are several caveats to the use of these strength-based assessments, however. The utility of strength-based assessments can be restricted by the willingness of personnel to use the information they receive to develop individual interventions. Educators are required to implement individualized

treatment plans for children in special education; they are also encouraged to modify classroom activities based on the needs and learning styles of all students. Nevertheless, it is common practice for teachers to favor particular methods for delivering instruction and maintaining behavior in their classes. This is an area in which school psychologists can be of assistance, by helping educators to use the information obtained through strength-based assessments to inform classroom and other school-based activities. Addressing the needs of students who have serious behavioral problems may require particular creativity, as these students are likely to benefit from “out of the box” thinking (Rhee et al., 2001). Clark (1996) notes that we have few evidenced-based practices for working with high-risk youth. The group study, and case study, presented here suggest areas for potential interventions, which could include using future goals as incentives to promote school involvement, encouraging family involvement in school activities, and developing areas in which students could demonstrate their leadership potential.

Further, there are likely to be other positive consequences associated with the use of strength-based assessment. It is hypothesized that the process of identifying the adolescents’ strengths itself will have an impact both on the school psychologists who are working with the adolescents and on the adolescents themselves. School psychologists will hold greater hope for adolescents when they are aware of their assets as well as their deficits. Similarly, adolescents are more likely to form a working relationship with the school psychologist if they believe that the school psychologist has hope and higher expectations for them. In sum, strength-based assessment is a promising practice with this population, but one that requires additional study.

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## Perceived Quality of Life: A Neglected Component of Assessments and Intervention Plans for Students in School Settings

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The relevance and contribution of the construct of quality of life to assessments and intervention plans for children and youth in school settings are discussed. Theory, measurement, and research related to perceived quality of life (PQOL) are reviewed leading to the contention that PQOL information contributes incremental validity above and beyond traditional deficit-based information. The use of PQOL in assessments, treatment planning, and monitoring of the well-being of students in school settings warrants further consideration to provide more comprehensive assessment-intervention activities.

Key Words: Quality of Life, Assessment, School

Traditional assessment, intervention planning, and monitoring services for children and youth in school settings have emphasized the measurement and “repair” of behavior and learning problems. Although such information is fundamental to understanding the needs of school-age youth, the deficit-oriented approach focuses attention on circumscribed aspects of their adaptation, ignoring important intrapersonal, and environmental assets (Epstein et al., 2003; Lopez, Snyder, & Rasmussen, 2003; Rhee, Furlong, Turner, & Harari, 2001). In an effort to develop a more comprehensive perspective of a child’s development, psychologists and educators associated with the “positive psychology” movement (Seligman & Csikzentmihalyi, 2000) have called for increased attention to positive indicators of well-being to complement the focus on negative indicators. As early as 1991, Cowen argued that definitions of psychological wellness should be expanded to include positive elements such as “a basic satisfaction with oneself and one’s existence . . . or life satisfaction” (p. 404). Although early work in positive psychology targeted adults, recent research attention is being directed to children and youth (Gilman & Huebner, 2003).

The distinction between positive and negative indicators of mental health is illustrated in research by Greenspoon and Saklofske (2001). In one study of children in grades 3-6, they demonstrated that psychopathology (PTH) and subjective well-being (SWB) (measured by life satisfaction) were not simply opposite poles of a continuum. Their results identified four distinguishable groups of students: high PTH-high SWB, high PTH-low SWB; low PTH-high SWB; and low PTH-low SWB, the latter of which particularly challenges one-dimensional models of mental health. Using only pathology-based measures (i.e., measures of the presence of psychopathological symptoms), the low PTH-low SWB students would appear “healthy” even though their SWB is low at baseline and/or declining. Thus, the use of positively-focused SWB measures would appear to offer the opportunity to develop more comprehensive portraits of the adaptation of youth to their life circumstances.

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Quality of life is a broad concept that provides one expanded framework for considering factors that relate to positive and negative behavior and emotions of children and adults (Cummins, 1997a; Huebner, 1994). Quality of life studies with persons with and without disabilities have investigated both objective and subjective indicators of persons and their environments. Examples of objective indicators include functional living skills, physician ratings of physical health, and access to recreational services. Examples of subjective indicators include perceived life satisfaction, positive emotions, and self-rated health. Increased interest has been demonstrated in the study of subjective indicators given the weak relationships between objective indicators and subjective perceptions. For example, the association between objective health indices and persons' health-related quality of life perceptions is quite modest (cf. Diener, Suh, Lucas, & Smith, 1999).

Perceived quality of life (PQOL) or life satisfaction is considered to be a key indicator of subjective well-being (Diener & Diener, 1995; Diener, Scollon, & Lucas, in press). PQOL is defined as a cognitive evaluation of the positivity of one's overall life or in specific life domains (e.g., school experiences, family life, and living environment; Campbell, Converse, & Rodgers, 1976). The use of PQOL measures in assessment and intervention planning and evaluation has been advocated in medical (Fallowfield, 1990), community (Cowen, 1991), and school settings (Gilman & Huebner, 2003) to address theoretical, practical, and ethical concerns. With respect to the former, children and youth wish first and foremost to be happy and content (Hales, 1996; Kazdin, 1993). Because an important goal of all interventions is to enhance the recipients' quality of life (Jenkins, 1992), PQOL measures have the potential to serve as crucial outcome indicators for monitoring intervention efficacy (Frisch, 1999), including children and youth in school settings. Practically, the use of PQOL measures is emphasized because of their sensitivity to changes in life circumstances, including psychosocial interventions (Farrell et al., 2003; Frisch, 1999). Although professionals view PQOL in divergent ways, ethical considerations necessitate the development and implementation of educational programs (e.g., placement in remedial/special education programs or specialized groupings), which, at the least, do not result in decreases in long-term PQOL. Similarly, related services, such as medical and psychosocial interventions associated with learning and behavior problems (e.g., medical treatments, specific curricular modifications, or individualized behavioral intervention plans) should also not negatively impact the long-term PQOL of the students. Professionals who work with students with and without disabilities in schools would likely agree with such a perspective. However, formal efforts to safeguard the PQOL of children and youth have not been undertaken routinely. The primary purpose of this paper is thus to advocate for consideration of PQOL in assessments and intervention planning and evaluation with students in school settings.

Promising measures of PQOL have been developed for children and youth, generally for grades 3-12, depending upon the instrument. As with adults, the measures are self-report in nature, given that the instruments are designed to assess student *perceptions* of the quality of their lives. Scales that measure the *overall* PQOL of children and youth include the Perceived Life Satisfaction Scale (Adelman, Taylor, & Nelson, 1989), the Quality of Life Profile-Adolescent Version (Raphael, Rukholm, Brown, Hill-Bailey, & Donato, 1996), and the Students' Life Satisfaction Scale (Huebner, 1991). More comprehensive, multidimensional measures include ratings of specific life domains (e.g., family, peers, and school). Such measures include the Comprehensive Quality of School Life Scale-School Version (Cummins, 1997b), Multidimensional Students' Life Satisfaction Scale (MSLSS; Huebner, 1994), and the Quality of Student Life Questionnaire (Keith & Schalock, 1995).

Reviews of PQOL scales can be found in Bender (1997) and Gilman and Huebner (2000). The multidimensional scale that has received the most empirical support is the MSLSS. The MSLSS con-



sists of 40 items that address the contexts of family, friends, school, self, and living environment as well as general life satisfaction. The internal consistency reliability of the MSLSS exceeds .90 (Huebner, 1994; Huebner, Laughlin, Ash, & Gilman, 1998). Four-week test reliability was .81 (Huebner et al., 1998). Construct validity has been supported through exploratory (Huebner, 1994) and confirmatory (Greenspoon & Saklofske, 1998; Huebner et al., 1998) factor analyses. Evidence of convergent and discriminant validity has been demonstrated in several studies (see Gilman & Huebner, 2000), including multitrait-multimethod investigations (Huebner, Brantley, Nagle, & Valois, 2002). A five-item Brief Multidimensional Students' Life Satisfaction Scale, based on the MSLSS conceptual model, (Seligson, Huebner, & Valois, 2003) has been developed as a potential screening device and for use in large-scale studies.

Although PQOL measures, such as the MSLSS, show promising psychometric properties, additional research is required to increase confidence in the use of *all* PQOL measures with individual students. For example, the development of national norms is needed to enhance the meaningfulness of student responses for each of the measures. Nevertheless, children's "absolute" ratings (e.g., mildly satisfied, moderately satisfied) can offer useful information for program planning and evaluation for individual children as well as groups of children.

### RELEVANCE TO STUDENTS WITH SPECIAL NEEDS

Raphael, Brown, Renwick, and Rootman (1997) articulated four reasons why PQOL is relevant in the public health context. We believe these reasons apply also to children and youth in school settings: (a) PQOL reports can serve as indicators of needs and assets, (b) PQOL draws attention to the role of environments in students' adaptation, (c) PQOL serves as a determinant of youth behavior, and (d) enhanced PQOL should be an outcome of interventions.

#### PQOL Measures can Serve as Indicators of Needs and Assets

The use of PQOL ratings may increase the comprehensiveness of evaluations of the quality, type, and outcomes related to services provided (Chan & Sorenson, 1997). We believe that the assessment of client satisfaction ratings provide important, incremental information, above and beyond that of measures of behavior and academic performance for several reasons. First, PQOL measures are related, but separable from measures of behavioral problems (e.g., depression or externalizing behavior) and learning (e.g., IQ; Huebner & Alderman, 1994). As noted previously, there are some individuals who do not display psychopathological behaviors but do report low PQOL; also, there are some individuals who display psychopathological behavior and high PQOL (Greenspoon & Saklofske, 2001). Thus, PQOL measures provide information that is not always equivalent to psychopathology-based information.

Nonetheless, the authors' reading of the literature on assessment and intervention programs for students, especially those with special needs, suggests that many studies have emphasized reduction in behavior *problems* as the critical indicator of intervention outcome. Intervention success is assumed if scores on such measures fall outside the clinically significant range. However, experiential (Frisch, Cornell, Villeneuve, & Retzlaff, 1992) and empirical evidence (Furr & Funder, 1998; Greenspoon & Saklofske, 2001) indicates that successful elimination of maladaptive behavior does not always lead to optimal mental health or increased PQOL. In other words, one cannot assume that individuals typically behave or feel "good" just because they do not feel "bad" (Frisch, 1999). Similarly, quality of life cannot be inferred from simply the absence of behavior problems. Thus, outcome measures, such as PQOL measures, which include ratings above a neutral point, can add to a broader perspective on child



and youth well-being. By including ratings ranging from “very low” through “neutral” and “very high,” PQOL measures meet this requirement because they can differentiate among subtle changes in subjective well-being (e.g., clients who move from “very low” to “moderately low” PQOL).

Furthermore, the use of domain-based PQOL measures provides multicontextual measurements of needs and assets, including both personal and environmental factors. For example, a child who reports low PQOL in the areas of family experiences and self-satisfaction necessitates different intervention considerations relative to a child who reports positive family experiences and self-satisfaction along with unsatisfactory school experiences. Such “profiles” of PQOL assessments suggest differentiated information related to a student’s perceptions of individual and environmental strengths and weaknesses that may inform prevention and intervention planning.

### **PQOL Draws Attention to Environments in Children’s Development**

Multicontextual PQOL reports affirm the role of the environment in the development of children and youth. PQOL reports provide indexes of students’ perceptions of key life contexts, such as the family, peers, school experiences, and community environment. Understanding the contributions of such environmental factors to a child’s academic and behavioral functioning is facilitated by inclusion of assessments of environmental factors, however, few such measures exist that are psychometrically sound (Hoge, 1999). Most professionals working with students in schools recognize the importance of person-environment interactions in the development of problem behavior. Nevertheless, systematic efforts are rarely undertaken to assess aspects of students’ environments that may be crucial to understanding and changing their behavior. PQOL measures can aid in assessment-intervention planning by revealing the differential impact of various contexts in a child’s life, particularly from the perspective of the child him or herself (Brantley et al., 2002; Huebner et al., 1998). Such subjective assessments provide an estimate of the “goodness of fit” between a child and the objective conditions of her or his life (Schalock, Keith, Hoffman, & Karan, 1989).

The inclusion of PQOL ratings in assessments may also relate to intervention compliance and positive prognosis, although research in this area has focused exclusively on adults to date. For example, studies by Holcomb and colleagues (Holcomb, Parker, & Leong, 1997; Holcomb, Parker, Leong, et al., 1998) found that psychiatric inpatients reporting high PQOL within their immediate treatment environment also demonstrated greater adaptive functioning and decreased psychiatric symptoms. Further, Carlson and Gabriel (2001) reported that clients in a residential drug treatment program who were more satisfied with their services also were more likely to abstain from alcohol and/or illicit drugs one year after starting treatment (see also Chan & Sorenson, 1997). These findings suggest that a complex, reciprocal relationship exists between changes in life quality and client perceptions, further underscoring the notion that specific PQOL assessments (e.g., satisfaction with interventions per se) can be useful in outcome evaluations (Frisch, 1999).

### **PQOL Serves as a Determinant of Youth Behavior**

That PQOL is related to important youth behavior is supported by a variety of cross-sectional studies of child and youth PQOL and measures of behavioral, physical, and emotional functioning. For example, low PQOL has been related to aggressive behavior, internalizing behavior, loneliness, suicide ideation, maladaptive eating and physical exercise behavior, and drug and alcohol use (see Huebner et al., 2004 for a review). Furthermore, some studies suggest a mediational role for global PQOL in the relationship between parenting behavior and externalizing and internalizing behavior in adolescence (Suldo & Huebner, 2004a) as well as between stressful life events and adolescents’ internalizing be-



havior (McKnight, Huebner, & Suldo, 2002). In one of the few longitudinal studies reported to date, Suldo and Huebner (2004b) found that high PQOL in adolescents served as a buffer against the effects of stressful life events in the development of subsequent externalizing behaviors. Thus, PQOL appears to play an important functional role in the behavioral problems of youth; it is not just a by-product of negative life experiences.

### **Enhanced PQOL Should be an Outcome of All Interventions**

Quality of life has long been viewed as an important aspect of educational services for people with disabilities (e.g., Schalock, Keith, Hoffman, & Karan, 1989). Quality of life issues are implicit in the Individuals with Disabilities Education Act in the procedural requirements of least restrictive environments, related services, and individualized educational programs. Educational services obviously affect quality of life, including PQOL, and thus educators should ensure that enhanced short- and long-term quality of life is a crucial consideration in their services. In order to accomplish this, those involved with the education of students with disabilities, such as students with learning or behavior problems, “must be trained to assess his or her unique experiences, strengths, and needs....to better plan, deliver, and evaluate quality services” (Watson & Keith, 2002, p. 305).

As noted previously, PQOL reports appear to be sensitive to treatment effects and long-term environmental changes (Diener et al., 1999; Farrell et al., 2003; Gilman & Barry, 2003). For example, repeated exposure to stressful life events can diminish an individual’s capacity to view life in a positive manner (Bearsley & Cummins, 1999). In addition, two short-term longitudinal studies investigated changes in PQOL of youth in residential treatment programs (Gilman & Barry, 2003; Gilman & Handwerk, 2001). In both studies, significant increases in PQOL were noted as youth progressed through treatment. Furthermore, in a multi-year, longitudinal study of the impact of a violence prevention program with rural adolescents, Farrell et al. (2003) found that of six outcome measures (e.g., aggressive behavior and drug use), a PQOL measure was the most sensitive to treatment effects. Finally, Brantley, Huebner, and Nagle (2002) found that adolescents with mild mental disabilities reported lower satisfaction with friendships and higher satisfaction with school experiences compared to normally achieving adolescents. Furthermore, the school satisfaction of the students with mental disabilities varied as a function of differences in special education placements. Taken together, such findings underscore the potential incremental validity of PQOL measures in evaluating program outcomes.

The use of PQOL instruments may provide educators with repeated opportunities to assess student satisfaction during the course of an intervention. As one example, a student whose satisfaction reports change from “low” to “neutral” to “high” across a variety of domains (e.g., school, self, and family) over the course of school-related interventions (e.g., use of psychostimulant medication for ADHD or provision of after school academic tutoring services) would suggest more pervasive and fundamental increments in life quality than a student whose satisfaction changed in only one domain (e.g., school). Similarly, decrements in PQOL reports (e.g., from “moderately high” to “mildly high” to “neutral”) across particular domains may highlight aspects of differential harmful effects of treatments for the student. Of course, continuous monitoring of the PQOL of students should inform program planning and modifications as well as evaluation.

In addition to measuring treatment progress, the use of PQOL measures is consistent with a growing movement in psychology that focuses on building individual and environmental strengths, rather than simply repairing weaknesses (Epstein et al., 2003; Rhee et al., 2001; Seligman & Csikszentmihalyi, 2000). Using this paradigm, educators would begin to identify and utilize students’ strengths (along

with their weaknesses), rather than merely focusing on developing a specific diagnosis and providing a related “treatment.” This information could then be specifically designed to increase PQOL (e.g., through a greater emphasis on building upon existing strengths). Such intervention strategies have resulted in positive outcomes in response to stress (Frederickson, 2001) and poor physical health (Seeman, 1989). Specifically, educators operating from a strengths-based perspective would work toward the development of educational programs that incorporate goals and activities based on important strengths. Goals and objectives that ensure that student strengths and environmental assets are capitalized upon in educational program may facilitate student progress and more positive parent-school and child-school partnerships (Epstein et al., 2003). Given such benefits, the use of strengths-based information, such as high scores on PQOL domains, should be viewed as a crucial component of a comprehensive evaluation process, in which the students can provide valuable insights into their treatment plans, effectiveness, and resources.

### CONCLUSION

PQOL measures can potentially contribute positive student/environment information that is readily understandable to educators of *all* students. Such contributions can extend to students with special needs, even those with behavior problems who are often “swimming in a sea of negativity” (Jensen et al., 2004, p. 69). PQOL measures often contain items corresponding to multiple domains in a student’s life, such as satisfaction with various subsystems in an educational environment (e.g., peers, school, and community; Gilman & Handwerk, 2001). Thus, individual and program evaluation results can be more specific and more understandable across professional groups, parents, and students; all of whom are concerned that the services benefit the students. For example, administrators can utilize the information in their reports to various accreditation bodies and funding sources—information that would increase the array of outcomes considered in evaluating the efficacy and impact of educational services. As noted previously, reliance on deficit-focused measures can obscure positive outcomes. With the inclusion of positive measures, such as PQOL reports, evaluators are afforded more comprehensive means to determine program effects. Teachers, school psychologists, and other support personnel can interpret specific information in PQOL reports as indicators of the quality of day-to-day experiences in relation to students’ important environmental contexts.

Developmental issues are likely critical in the incorporation of PQOL considerations in school-based assessment and intervention. Nevertheless, little research attention has been devoted to such concerns. One exception is a study by Suldo and Huebner (2004a) that demonstrated that parenting behaviors assumed differential levels of importance to PQOL reports for adolescents of differing ages. Also, Dew (1995) found that older adolescents can differentiate more life satisfaction domains than younger adolescents. Such findings point to the need for further study of developmental differences in the nature and determinants of PQOL reports in children and youth.

In summary, the inclusion of PQOL ratings as a part of a comprehensive school program evaluations offers unique information that may benefit “consumers” of school-related services, ranging from individual students to entire school systems (e.g., school district). We agree, “what gets measured, gets done” (Moore, Brown, & Scarupa, 2003). Although monitoring the traditional indicators of student progress remains important, the use of PQOL measures should be considered to increase the opportunity to more comprehensively assess potential positive and negative outcomes associated with school experiences, particularly as perceived by the students themselves. In this manner, schools will be best prepared to achieve a fundamental purpose, that is, to enhance students’ overall quality of life.

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## Dropout and Violence Needs Assessment: A Follow-up Study

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The current study investigated a needs assessment survey designed to measure perceptions of causes of dropout and school violence and related interventions. The needs assessment was conceptualized as a first step to be taken by schools to facilitate program planning, school-based implementation and acceptability of programs designed to prevent school violence and dropout. The research reported in this paper is a follow-up to a recently published comprehensive needs assessment regarding the prevention of school dropout and violence. Results compare survey administration in Michigan with the original sample in Georgia. The revised instrument was administered to a school district in Michigan, and the results supported the five-factor model proposed in the initial research. Those factors include: School Connectedness, Causes of Disruptive of Violent Behavior, Causes of School Disengagement/Dropout, Interventions for Violence and Interventions for Dropout. This article considers implications for future use of adapted versions of this needs assessment surveys in developing effective preventive interventions.

Keywords: Needs Assessment, Consultation, School Violence, Dropout

School violence and dropout are critical issues in today's schools. National attention has focused on violence prevention, as well as on school success (No Child Left Behind Act, 2001). School personnel are increasingly being called upon to prevent problems by arranging, implementing and evaluating preventive activities in the schools (Meyers & Nastasi, 1999). Ecological models and prior research show that violence and dropout are long-term processes involving multiple levels of influence (Bronfenbrenner, 1989; Coie, Lochman, Terry, & Hyman, 1992; Finn, 1993; Grannis, 1991; Tolan & Guerra, 1994). The literature on violence and dropout prevention indicates considerable overlap regarding the factors contributing to these problems and recommendations for interventions (Frick et al., 1991; Hinshaw, 1992). Hunt, Meyers, Davies, Meyers, and Grogg (2002) thoroughly reviewed factors related to both dropout and school violence. Analysis of the factors cited in the literature, as well as results from the comprehensive needs assessment survey provided support for conceptualizing these factors together in research and practice. According to these authors, the following factors appear to be risk factors for both school violence and school dropout: lack of school connectedness or interest, withdrawal from social networks, academic difficulties, poor peer relations, behavior problems, and low SES (Hunt et al., 2002). Therefore, schools need to develop interventions that address these issues simultaneously.

An essential component of program planning for violence prevention in schools is conducting a needs assessment to obtain perceptions from students, parents, and employees (e.g., Furlong, Morrison, Chung, Bates, & Morrison, 1997; Meyers & Nastasi, 1999). Preventive interventions that include input from participants are likely to have higher treatment acceptability (Elliott, Witt, & Kratochwill, 1991; Truscott, Cosgrove, Meyers, & Eidle-Barkman, 2000). Collecting information from participants is key to forecasting an intervention's acceptability, integrity and longevity (Fullan, 1991). Therefore, the present study investigates a needs assessment survey focused on school violence and dropout that

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builds on a previously developed needs assessment survey (Hunt et al., 2002). The survey gathers information about school staff perceptions regarding causes and interventions for school dropout and violence.

The original survey was constructed based on qualitative interviews. Interview questions were derived from the literature on school violence (Patterson, DeBaryshe, & Ramsey, 1989; Tolan & Guerra, 1994), literature on dropout (Sinclair, Christenson, Evelo, & Hurley, 1998) and input from key informants from the school district. Survey questions were created based on themes derived from the interview data. This survey was administered to school staff in the district where the interviews took place. This survey consisted of 84 Likert-type items on a 5-point scale. Data gathered from returned surveys (59% return rate) were analyzed quantitatively. Results of a principal component analysis indicated a 5-factor structure. The five factors were: school connectedness/positive school climate, causes of violence, causes of school dropout, interventions for dropout, and interventions for violence. The survey was then revised based on the principal component analysis. Items that did not load significantly on any factor were eliminated. This resulted in a proposed survey with 54 items. Four additional items were demographic in nature. The results of this survey indicated that there was high agreement among the participants across the items. Findings showed that the perceptions of the school personnel generally reflected the risk factors cited in the literature (Hunt et al., 2002).

### **The Current Study**

Using the original survey as a basis, the current survey was further developed through collaborative action research methods (Greenwood, Whyte, & Harkavy, 1993; Nastasi et al., 2000). According to collaborative action research methodologies, the use of key stakeholders (i.e., school personnel) throughout the process of intervention development leads to interventions that have increased cultural specificity and potential for longevity (Nastasi, Varjas, Schensul et al., 2000). Similarly, participatory action research methods utilize key stakeholders to bridge the gap between suggested research and acceptable applied practices (Ho, 2002). Thus, recent research highlights the importance of including participant input in the design and implementation of interventions.

This follow-up study is designed to contribute to the literature by addressing three basic questions:

1. How do school employees in this sample view the importance of the items reflecting the following areas of drop out and violence research: school connectedness, causes of disruptive or violent behavior, causes of school disengagement/dropout, interventions for violence and interventions for dropout?
2. How do responses to this revised survey administered in Michigan compare to district responses on the original survey that was administered in Georgia?
3. What are the practical implications and uses of this needs assessment survey?

## **METHOD**

### **Participants**

Data were gathered district-wide in a small city school system in Michigan. The district has approximately 750 employees housed in two elementary schools grades K-6, two elementary schools grades K-3, two elementary schools grades 4-6, one middle school grades 7-8, and one high school grades 9-12. The district also has central administration, transportation, maintenance and Head Start





buildings. The district superintendent and central administrative staff agreed to work collaboratively with the researcher to collect survey data. Data were collected from all school personnel. Both the original survey sample (from Georgia) and the Michigan sample included certified and non-certified school employees. The districts were also similar in student enrollment (approximately 4000 in the Georgia sample, and 6,500 in Michigan). The districts differed in student ethnic demographics. The Georgia student population was approximately one-third Hispanic, one-third African American and one-third European American. Student demographics of the Michigan sample included approximately 50% African American, 45% European American and 5% Hispanic American.

### Procedure

The current needs assessment survey was also conducted using collaborative action research methods. The superintendent met with the researcher to review the original survey and to negotiate survey administration. In additional meetings, the superintendent met with principals and central administrative staff to review the survey and make recommendations for adaptation of items. Finally, the researcher met with the superintendent and central administrative staff to finalize the survey based on their feedback. This collaboration is in line with participatory action research and helps to increase cultural specificity and acceptability (Ho, 2002; Nastasi et al., 2000). The final survey had 60 items, four of which were demographic in nature.

Surveys were distributed district-wide to all employees. All employees were included at the request of district administration in order to obtain perceptions that accurately reflected employee opinions. A total of 385 surveys were completed for a return rate of 51%. The employees participating in the survey included school personnel such as teachers, teacher assistants, counselors, school specialists, administrative staff, clerical staff, cafeteria employees, and bus drivers. Reminders to complete and return surveys were left to the discretion of the building administrator. An administrator for each building served as the contact person for the research project. Surveys were collected in boxes beside staff mailboxes.

### Analyses

Survey data were analyzed by assigning each response a point value from 1 to 5 (1 = not at all important, 2 = slightly important, 3 = moderately important, 4 = important, 5 = very important). The breakdown of respondents by school was as follows: 57% of the respondents were from the elementary schools, 15% from the middle school, 16% from the high school, and 11% from the administrative, transportation, maintenance and Head Start buildings or from personnel serving more than one school. Approximately 77% of the respondents were female, and 18% male (18 respondents omitted this question). Approximately 79% of the respondents were Caucasian, 5% African American, 3% Hispanic, 1% Asian American, and 6% Other (22 respondents omitted this question).

## RESULTS

The results are presented in three sections. First, Michigan survey results are reported in five areas: school connectedness, causes of disruptive or violent behavior, causes of school disengagement/dropout, interventions for violence and interventions for dropout. These five areas correspond to the five factors derived from the original survey. Second, current survey results are compared to the original sample from Georgia. The third section presents the principal components analysis from the Michigan survey results to provide more information about the factor structure of the scale.

### Survey Factor Results

A complete list of mean scores for all items is included in Table 1. There was generally high agreement among participants that the survey items were viewed as important (see Table 1). The most highly rated items are discussed for each factor, as well any items whose overall mean was less than 3.5. This cut-off was selected because it reflects any items that were rated by participants as less than "important" (i.e., moderately important = 3, important = 4, and very important = 5). This cut-off was also selected because it was used in the previous study (Hunt et al., 2002) and allowed for comparison of results across studies.

**Table 1.**  
*Comparison of District-Wide Means of Individual Items for Each Scale*

	GA		MI	
	M	SD	M	SD
<i>Factor I – School Connectedness/Positive School Climate</i>				
Student feels that someone really cares for them	4.79	.50	4.74	.51
Student had an adult at school they can go to with a problem	4.66	.61	4.52	.67
Strong positive relationships with an educator	4.47	.72	4.50	.65
Caring teacher attitude	4.80	.50	4.74	.49
Friendly, positive school climate	4.60	.64	4.55	.61
Teach conflict resolution	4.36	.84	4.12	.83
Emotional support	4.41	.77	4.37	.73
Teach problem solving skills	4.36	.76	4.12	.85
Student has someone they can look up to	4.52	.73	4.36	.73
Student feels safe at school	4.69	.57	4.52	.67
Teacher shows interest in students' activities outside of school	3.87	.95	3.87	.88
Individual teacher/student time	4.23	.86	4.14	.84
Increase motivation	4.69	.56	4.43	.69
Rewarding positive behavior	4.23	.93	3.95	.98
Teacher contact with parents	4.48	.69	4.33	.75
<i>Factor II – Causes of Disruptive or Violent Behavior</i>				
Disrespect for peers	4.23	.85	4.10	.92
Disrespect for authority	4.60	.72	4.49	.75
Lack of involvement in school activities	3.65	1.07	3.67	1.03
Poor anger management skills	4.31	.85	4.40	.81
Emotional immaturity	4.08	.91	3.90	.97
Gangs	3.90	1.32	3.20	1.38
Children with behavior disorders	4.00	1.07	4.01	.94
Lack of role models in the community	3.69	1.07	3.70	1.16
Drug use	3.74	1.44	3.38	1.39
Cliques or groups of children	3.71	1.05	3.67	.98
Racial or ethnic differences	3.36	1.23	2.72	1.08
Lack of academic interest	4.18	.89	4.15	.90
Peer pressure	4.06	1.01	3.91	.99

**Table 1 continued.**  
***Comparison of District-Wide Means of Individual Items for Each Scale***

Parent support/involvement	4.38	.93	4.50	.80
Media (radio, TV, news, movies, sports)	3.85	1.14	3.61	1.08
<i>Factor III – Causes of School Disengagement/Drop Out</i>				
Student is an ethnic minority	2.65	1.28	2.36	1.09
Student has been retained	3.22	1.16	3.16	1.15
Socioeconomic status	2.88	1.12	3.10	1.00
Academic success	4.36	.65	4.53	.64
English language proficiency	3.89	.95	3.97	.91
Student with a disability	2.92	1.15	2.96	1.12
Lack of support for slow learners	3.50	1.29	3.99	1.00
Early reading achievement	4.32	.77	4.51	.73
Lack of self-esteem or confidence	4.09	.98	4.36	.89
<i>Factor IV – Interventions for Disruptive or Violent Behavior</i>				
In or out of school suspension	4.15	1.02	2.98	1.09
Juvenile court	3.79	1.21	2.90	1.16
Utilizing district support personnel (i.e., social worker, school psychologist, etc.)	4.06	1.07	3.70	.93
Punishment or consequences	4.49	1.05	3.60	1.05
School working with law enforcement	4.19	.96	3.71	1.02
Opportunity/time-out room	4.00	1.13	3.49	1.14
Parent contact, phone calls or conferences	4.55	.78	3.79	.89
Behavior contracts	3.68	1.07	3.13	1.02
<i>Items added to MI survey</i>				
Lunchtime recess alternatives	na	na	3.29	1.10
Connecting students with community services	na	na	3.59	.94
Peer mediation	na	na	3.16	1.03
Use of behavior intervention specialist	na	na	3.52	1.01
Child Study Teams	na	na	3.15	1.03
<i>Factor V – Interventions for Dropout</i>				
A mentoring program	4.14	.91	3.97	.88
After school academic help	4.25	.88	3.60	.98
Role models	4.61	.62	4.29	.83
A parent resource center/family education	3.91	1.01	3.76	.99
Parent support groups	3.88	.99	3.61	1.01
Expand vocational training programs	4.22	.83	4.06	.88
After school programs, sports or clubs	4.29	.78	3.96	.96

*School connectedness.* Educators were asked to rate ways that help students feel connected to school and to teachers. The two items that were rated as most important included: caring teacher attitude ( $M = 4.74$ ,  $SD = .49$ ) and student feels someone really cares for them ( $M = 4.74$ ,  $SD = .49$ ). None of the items from this area of the survey were rated below 3.5.

*Causes of disruptive or violent behavior.* Participants were asked to rate the importance of certain items as they contribute to disruptive or violent behavior in school. The two items that were rated as most important included: lack of parent support/involvement ( $M = 4.50$ ,  $SD = .80$ ) and disrespect for authority ( $M = 4.49$ ,  $SD = .75$ ). Three items from this area of the survey were rated as relatively less important (i.e., 3.5 or below). These items were: racial and ethnic differences ( $M = 2.72$ ,  $SD = 1.08$ ), drug use ( $M = 3.38$ ,  $SD = 1.39$ ), and gangs ( $M = 3.20$ ,  $SD = 1.38$ ).

*Causes of school disengagement/dropout.* Participants were asked to rate the importance of items as they contribute to school disengagement/school dropout. Academic success ( $M = 4.53$ ,  $SD = .64$ ) and early reading achievement ( $M = 4.51$ ,  $SD = .73$ ) were the items rated as most important. Three items in this factor were rated as less than important (i.e.,  $M < 3.5$ ): student is an ethnic minority ( $M = 2.36$ ,  $SD = 1.09$ ), socioeconomic status ( $M = 3.10$ ,  $SD = 1.00$ ), and student has been retained ( $M = 3.16$ ,  $SD = 1.15$ ).

*Interventions for violence.* The two interventions rated as most important for reducing disruptive and violent behavior included: parent contact, phone calls or conferences ( $M = 3.79$ ,  $SD = .89$ ), and schools working with law enforcement ( $M = 3.71$ ,  $SD = 1.02$ ). Three items in this factor were rated as less than important: in or out of school suspension ( $M = 2.98$ ,  $SD = 1.09$ ), juvenile court ( $M = 2.90$ ,  $SD = 1.16$ ), and behavioral contracts ( $M = 3.13$ ,  $SD = 1.02$ ).

*Interventions for dropout.* The following items were viewed as particularly important issue with an influence on whether children dropout of school: role models ( $M = 4.29$ ,  $SD = .83$ ) and expanded vocational programs ( $M = 4.06$ ,  $SD = .88$ ). No items in the factor had a mean rating below 3.5.

### Comparison of Michigan Survey Results to Georgia Survey Results

The return rate for the survey in Michigan (51%) was comparable to the return rate for the Georgia sample (59%). Response ratings of the current survey were very similar when means and standard deviations were compared with the original sample (see Table 1). In fact, only one item differed by more than a standard deviation between the two samples. This item was listed in factor four, interventions for disruptive or violent behavior, in or out of school suspension (GA  $M = 4.15$  vs. MI  $M = 2.98$ ).

### Principal Components Analysis of the Michigan Survey

Data were analyzed using a principal components analysis to learn more about the factor structure and item loadings of this revision of the needs assessment survey. Initially all items were included in a principal components analysis using a varimax rotation. A scree test supported a 5-factor solution, which was similar to the factor solution of the previously proposed survey. An additional principal components analysis was conducted forcing the items into a 5-factor solution. Five items that did not load on any of the factors at .40 or above were eliminated. The principal components analysis was conducted again using the remaining items. Results of this analysis resulted in 46% of the total variance accounted for by the remaining 51 items. This is consistent with the previously proposed survey's total variance accounted (44%) for by the 5-factor solution. Table 2 provides a comparison of factors, items in each factor and factor loadings for the items for both the Michigan and Georgia samples. An analysis of factor content revealed the same items on both administrations. Exceptions were items that were added by the Michigan district as a result of consultation prior to the survey administration. Items within the factors showed equally strong factor loadings between the two samples. The School Connectedness factor accounted for the most variance on both administrations.

**Table 2.**  
***Comparison of Needs Assessment Surveys by Administration and Factor Loadings***

	GA Loading	MI Loading
<i>Factor I – School Connectedness/Positive School Climate</i>		
Student feels that someone really cares for them	.80	.74
Student had an adult at school they can go to with a problem	.79	.74
Strong positive relationships with an educator	.76	.77
Caring teacher attitude	.69	.65
Friendly, positive school climate	.67	.66
Teach conflict resolution	.62	.52
Emotional support	.61	.68
Teach problem solving skills	.54	.55
Student has someone they can look up to	.58	.75
Student feels safe at school	.54	.55
Teacher shows interest in students' activities outside of school	.54	.61
Individual teacher/student time	.49	.56
Increase motivation	.46	.51
Rewarding positive behavior	.45	.40
Teacher contact with parents	.43	.42
<i>Factor II – Causes of Disruptive or Violent Behavior</i>		
Disrespect for peers	.72	.73
Disrespect for authority	.65	.64
Lack of involvement in school activities	.59	.62
Poor anger management skills	.58	.61
Emotional immaturity	.57	.62
Gangs	.54	.57
Children with behavior disorders	.54	<.40
Lack of role models in the community	.53	.52
Drug use	.51	.54
Cliques or groups of children	.50	.63
Racial or ethnic differences	.50	<.40
Lack of academic interest	.50	.71
Peer pressure	.46	.51
Parent support/involvement	.45	.62
Media (radio, TV, news, movies, sports)	.42	.57
<i>Factor III – Causes of School Disengagement/Dropout</i>		
Student is an ethnic minority	.69	.67
Student has been retained	.65	.68
Socioeconomic status	.55	.42
Academic success	.53	<.40
English language proficiency	.52	.48
Student with a disability	.52	.67

**Table 2 continued.**

Lack of support for slow learners	.48	<.40
Early reading achievement	.48	<.40
Lack of self-esteem or confidence	.41	<.40
<i>Factor IV – Interventions for Disruptive or Violent Behavior</i>		
In or out of school suspension	.71	.42
Juvenile court	.61	.58
Utilizing district support personnel (i.e., social worker, school psychologist, etc.)	.60	.60
Punishment or consequences	.59	<.40
School working with law enforcement	.59	.59
Opportunity/time-out room	.56	.52
Parent contact, phone calls or conferences	.54	.50
Behavior contracts	.47	.66
<i>Items added to MI survey</i>		
Lunchtime recess alternatives	na	.54
Connecting students with community services	na	.58
Peer mediation	na	.58
Use of behavior intervention specialist	na	.60
Child Study Teams	na	.66
<i>Factor V – Interventions for Drop out</i>		
A mentoring program	.57	.75
After school academic help	.51	.69
Role models	.51	.60
A parent resource center/family education	.48	.68
Parent support groups	.47	.64
Expand vocational training programs	.47	<.40
After school programs, sports or clubs	.35	.58

## DISCUSSION

Results of the current needs assessment survey indicated that school staff in this Michigan school district generally agree about causes and interventions for school dropout, causes and interventions for school violence, and ways to promote school connectedness. Similar to findings from the original study (Hunt et al., 2002), most items on the survey were rated as “important” or “very important.” Further analysis of the survey using principal components analysis supported the use of a model for conceptualizing school dropout and violence that includes a mediating factor of school connectedness.

Future consultation and intervention development for dropout and violence prevention may be enhanced by the use of an adapted version of this needs assessment survey as a tool for planning intervention and promoting treatment acceptability. The survey could be adapted through participatory action research methods. That is, the survey items could be modified based on input from participants so that the data collected is most useful and meaningful. The inclusion of key stakeholders, as outlined in participatory action research methodology, may enhance treatment implementation and sustainability.

For example, this survey could be administered to school personnel after obtaining information from key stakeholders within the district. Further, the survey could also be revised in order to collect data from other members of the school community (i.e., parents and students) as well as the local community.

The 5-factor structure has been supported and appears to be a reasonable way of conceptualizing prevention and intervention in this area. However, the recommended use of this survey is as a consultation tool. In keeping within the collaborative nature of consultation, it is at the discretion of the consultant and consultee to determine what items and factors are included.

A potentially important use of the revised needs assessment survey may be its utilization to stimulate intervention research based on input from participants. School psychologists have the training and knowledge to use this survey as a data collection step in participatory action research model as proposed by Ho (2002). In addition to data provided by the survey, results could be used as a basis for designing in-depth focus groups and member checking meetings. In this manner, the survey is a tool in the recursive process of intervention development and relationship building between the researchers and school personnel. Previous research highlights the importance of participant input in designing interventions with high treatment acceptability (Ho, 2002; Truscott et al., 2000). Interventions with high treatment acceptability are more likely to be sustained (Kazdin, 1980). Thus, the process of participatory action research model allows the school psychologist to make a best fit between school district culture and available interventions. Consideration of empirically validated interventions and their subsequent acceptability by educators is an important aspect of effective consultation. Consultation is an important role for school psychologists and one way for role expansion (Gutkin & Curtis, 1999).

A limitation in this study is that it does not include perceptions from parents and students. Eliciting perceptions from these groups would enrich future data collection in this area. Obtaining perceptions from multiple sources allows for the triangulation of data and may supply researchers with more support that the collected data is valid and applicable across groups (Lincoln & Guba, 1985). Inclusion of parent, teacher and student perceptions have important implications for developing effective intervention programs because these groups may have differing viewpoints. Considering the needs and opinions of these groups may increase the acceptability and sustainability of system-wide interventions. In addition, replication of the survey in different areas of the country, including California, would provide information and opportunity for comparison of perceptions across geographical regions.

Another limitation of the current study is that the responses were combined across levels (elementary, secondary, administrative, and non-classified) due to the small sample size. In the future, analysis of potential differences between these groups could provide useful information for intervention planning.

Results indicated that sometimes there is a discrepancy between educator perceptions of factors related to dropout and school violence and empirical data. For example, school staff in this sample did not perceive grade retention and low socioeconomic status as significant risk factors for school dropout. However, literature suggests these factors are related to school dropout (Kortering, Hess, & Braziel, 1997). This suggests the need for staff training on these topics. Educators with a solid understanding of risk factors for dropout and violence are in a better position to help design and implement interventions in these areas.

The measurement of staff perceptions of factors related to school dropout and violence is an important component of designing interventions with high treatment acceptability. However, this does not suggest that interventions should be based solely on staff perceptions. Ultimately, researchers should consider staff perceptions in combination with empirically validated interventions for dropout



and violence prevention when developing interventions. Use of data generated by the survey in combination with knowledge of validated intervention programs allows for the development of interventions with high treatment acceptability and efficacy.

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## **Twenty-five Years after *Larry P.*: The California Response to Overrepresentation of African Americans in Special Education**

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In this article, major laws, regulations, court cases, policies and practices related to intelligence testing of African American students in California are reviewed. A California Department of Education (CDE) ban on intelligence testing of African American students for the purpose of determining special education eligibility is in effect and enforced by Special Education Hearing Officers (SEHO) and Coordinated Compliance Reviewers (CCR). Although the CDE bases its restrictions on the results of the *Larry P.* case, we found that (a) the CDE policy runs counter to the ruling and intent of the *Larry P.* case; (b) overrepresentation of African Americans in special education programs continues despite the use of alternative assessment methods to measure intelligence; and (c) overrepresentation of African Americans in special education is not the result of intelligence test bias, rather, more endemic socio-political inequalities are to blame. We conclude with a discussion of three critical questions to be considered in future responses to the *Larry P.* court case.

Key Words: Larry P., Special Education, Intelligence Testing, Minority Overrepresentation

Intelligence testing<sup>1</sup> of African American students for the purpose of determining special education eligibility is a politically and legally charged issue in California. While bias in intelligence testing is discussed at a national level from time to time (for example, the 1994 publication of Herrnstein and Murray's *The Bell Curve* sparked considerable debate), only in California is administration of an intelligence test to an African American student explicitly banned by public policy. The California Department of Education (CDE) ban is based in large part on the well-known *Larry P.* court case. This and other related case law, state and federal laws and regulations, the state hearing officers' rulings and coordinated compliance reviews, state and district policies, and current practices in intelligence testing of African Americans in California are reviewed, followed by a summary of the literature on test bias. In this review we found that many of the policies and practices surrounding intelligence testing of African Americans in California have not achieved their purpose as evidenced by the fact that 25 years after *Larry P.* and the introduction of alternative assessment methods for determining special education eligibility, African Americans remain significantly over-represented in special education (U.S.

<sup>1</sup> Intelligence testing is a generic term used in this paper to refer to any commercially developed, widely used, and publicly scrutinized test of intelligence, cognition or aptitude. These tests include, but are not limited to, the Wechsler Intelligence Tests, Woodcock-Johnson Tests of Cognitive Abilities, and Stanford-Binet Intelligence Scale.

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Department of Education, 2002). While the intent of these efforts is laudable, more work remains to be done to address the systemic issues surrounding overrepresentation of African American students in special education programs.

## LAWS, REGULATIONS, AND LITIGATION

### Federal and State Laws and Regulations

*IDEA '97.* The 1997 re-authorization of the Individuals with Disabilities Education Act (IDEA), like its predecessors, enumerates standards for conducting evaluations. The first standard is that tests “are selected and administered so as not to be discriminatory on a racial or cultural basis” (300.532(a)(1)(i)). Another standard requires that eligibility decisions not be based on a single test or procedure (300.532(f)). IDEA '97 does not ban the use of intelligence tests for determining special education eligibility of African American students.

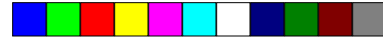
*California codes and regulations.* Like IDEA, California codes and regulations require that assessments conducted for the purposes of determining eligibility be nondiscriminatory (56320(a)); based on more than one procedure or test (56320(e); 5 CCR 3030(j)(4)); and the influence of the student’s culture, environment and economic status be considered (30 EC 56327(g)). California Regulations further note, “When standardized tests are considered to be invalid for a specific pupil, the discrepancy shall be measured by alternative means as specified on the assessment plan” (3030(j)(4)(B)). While this regulation specifically applies to diagnosing Learning Disabilities (LD), it illustrates best practices in assessment regardless of the suspected disability. While *Larry P.* was ostensibly about assessing students for placement in Educable Mental Retardation (EMR) programs, current state education code focuses on bias in testing for identifying LD. This likely reflects the shift over the past 20 years in identifying fewer students for the category of mental retardation (MR) and greater numbers for the category of LD (National Research Council, 2002).

### Case Law

*Larry P. v. Riles.* The 1979 *Larry P.* decision declared that intelligence tests should not be used to qualify African American students for EMR classes or their substantial equivalent. While this finding has become almost legendary, less attention has been devoted to Judge Peckham’s other findings, which include EMR programs are primarily “dead-end” programs and the State Board of Education should conduct a review process for approving intelligence tests for use in determining special education eligibility. The State Board of Education review was never conducted, thus, there are no CDE approved assessments of African American students’ intelligence (Lopez, 2001). In 1986, the court expanded the injunction on intelligence tests from banning their use in placing African American students in EMR programs to determining eligibility of African American students for *all* special education programs. Thus, *Larry P.* was extended to:

the complete prohibition against using intelligence tests for identifying or placing Black pupils in special education...and IQ tests may not be given to a Black pupil even with parental consent. Moreover, when a school district receives records containing test protocols from other agencies...IQ scores contained in the records shall not become a part of the pupil’s current school record. There are no special education related purposes for which IQ tests shall be administered to Black students (*Larry P.*, 1986, p. 4, as cited in Reschly, 1997).

*Crawford v. Honig.* This suit brought by a group of African American students in 1992 challenged the 1986 expansion of the *Larry P.* injunction on intelligence testing to all special education eligibility decisions. The plaintiffs requested that intelligence tests be allowed for determining the eligibility of



African American students to receive special education under the category of LD. The court agreed with the plaintiffs and vacated the 1986 modification, leaving the original 1979 injunction in place. This decision was based on the finding that the 1979 case focused on the disproportionate number of African American students in EMR classes rather than the technical merits or inadequacies of intelligence tests (Reschly, 1997).

### Special Education Hearing Officers

Disputes about special education entitlement and protection involving intelligence testing of African American students are frequently resolved by the State of Education Hearing Officers (SEHO). A review of some recent cases found that Hearing Officers support a very expansive interpretation of *Larry P. v. Riles*. Most recognize that the *Crawford* case vacated the 1986 *Larry P.* injunction and default to the 1979 *Larry P.* case in guiding their decisions. As the following quotation indicates, Hearing Officers are interpreting the original *Larry P.* moratorium on intelligence testing to apply to eligibility decisions about MR.

... even though EMR classes no longer exist, the use or consideration of IQ tests prohibited by *Larry P.* by school districts concerning African American students continues to be inappropriate and is in effect. Because *mental retardation* [italics added] continues to establish special education eligibility “the danger of misidentifying a student as mentally retarded continues to exist today” (*Student v. Temecula Valley Unified School District*, 2001, p. 22).

However, there is evidence that Hearing Officers apply the 1979 *Larry P.* case beyond the diagnosis of MR. For example, in *Student v. South Pasadena Unified School District* (2003) the Hearing Officer prohibited the administration of the Non-Verbal Intelligence Test (NVIT) to an African American student diagnosed with speech and language disorder (Sp/L). In the same year, the Hearing Officer presiding over *Student v. Elk Grove Unified School District* (2003) determined that the Wechsler Intelligence Scale for Children-III (WISC-III) results gathered by an independent evaluator could not be considered in the case of an African American student referred for Emotional Disturbance (ED). Finally, administering the WISC-III to an African American student diagnosed with LD resulted in the entire psycho-educational report being expunged in *Student v. Compton Unified School District* (2002). Some Hearing Officers are applying the 1979 *Larry P.* ruling to the assessment of any type of disability, not just MR, irrespective of the *Crawford v. Honig* ruling.

The rationale Hearing Officers’ frequently offer for enforcing a ban on intelligence testing of African American students is that the *Larry P.* case determined intelligence tests to be racially biased against African Americans due to the mean difference in scores among African American and European American students (e.g., *Student v. Temecula Valley Unified School District*, 2001; *Student v. Ravenswood Elementary School District and Sequoia Union High School District*, 1997). Basing their judgments on this interpretation of *Larry P.* is flawed for three reasons (a) the original *Larry P.* case focused on overrepresentation of African American students in EMR programs more so than the psychometric quality of the tests (Reschly, 1997); (b) mean differences between African American and European American test scores do not equate to test bias (Brown, Reynolds, & Whitaker, 1999); and (c) lower mean IQ scores render African Americans *less* likely to qualify for special education eligibility because low IQ scores make it difficult to qualify for LD — the largest special education category (Sternberg & Grigorenko, 2002).

In most of the cases we reviewed, the African American plaintiff was requesting special education services, often based on the results of an independent examiner who may have administered traditional intelligence tests, rather than demanding corrective action for a district’s misdiagnosis of MR (e.g., *Student v. Culver City Unified School District*, 1995; *Student v. Elk Grove Unified School District*,

2003; *Student v. Lemon Grove Elementary School District*, 1998; *Student v. Los Angeles Unified School District*, 2002; *Student v. Manteca Unified School District*, 2001); one exception is *Student v. Temecula Valley Unified School District* (2001) in which the African American plaintiff requested compensatory education due to an inappropriate diagnosis of MR. Though an exhaustive review of all of the relevant SEHO cases was not conducted, the randomly selected cases we examined suggest that contrary to *Larry P. v. Riles*, African Americans are currently fighting to get their children into rather than out of special education programs.

Meanwhile, California school psychologists struggle to determine legally permitted assessment practices in the face of Hearing Officers' inconsistent decisions. For example, the Hearing Officer in *Student v. South Pasadena Unified School District* (2003) prohibited the NVIT because the Larry P. Task Force had recommended that the NVIT be banned but approved the other tests the district planned to administer including the Matrix Analogies Test (MAT). Yet, in *Student v. Temecula Valley Unified School District* (2001) the hearing officer found "that the MAT is a standardized test of intelligence within the scope of *Larry P.*" (p. 15) and the district's assessment was inappropriate because the MAT was a racially discriminatory test. In short, the MAT was determined to be acceptable in the *South Pasadena* case but not in the *Temecula Valley* case.

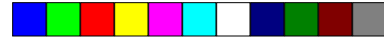
#### Summary of the Legal Standing of *Larry P. v. Riles*

Case law prohibits administration of an IQ test to African Americans to determine eligibility for EMR or the substantial equivalent of an EMR program. Since EMR programs are now obsolete and the definition of "substantial equivalent" has not been established, the application of the 1979 ruling to determining eligibility for current special education programs is questionable. In 1992, the CDE issued a legal advisory that defined "substantially equivalent" programs to include those in which (a) students typically do not receive the regular curriculum and fall further and further behind students in regular classes, (b) fewer than 20% of students are returned to the regular classroom, and (c) African Americans are disproportionately represented (Zolotar, 1992). This CDE interpretation of *Crawford v. Honig* would define many special education programs in California as "substantially equivalent" or "dead-end." The California Association of School Psychologists (CASP) vehemently opposed the CDE interpretation arguing that it ran "counter to both Judge Peckham's decision and its intent," (p. 1) noting that since the courts had not established a definition for "substantial equivalent" programs the CDE's legal advisory was inaccurate and misleading (Henry, 1992). Despite the concerns raised by CASP, the CDE proceeded to ban intelligence testing of African Americans referred for special education though the legal basis for this action is questionable.

### PUBLIC POLICY

#### California Department of Education Policy

The most current CDE policy on intelligence testing of African American students was articulated in a 1997 memo crafted by Leo Sandoval who was the Assistant Superintendent of Public Instruction, Director of Special Education Division at that time. In this memorandum, Mr. Sandoval acknowledged that the review process for the approval of standardized intelligence tests with African American students had not yet been conducted and attempted to "clear-up the confusion regarding implementation of the court rulings prohibiting the administration of standardized intelligence tests to African American students for special education eligibility" (p. 1). However, his memorandum contributes to the confusion rather than elucidates the issues. In one paragraph he stated, "I am instructing consultants who will be conducting Coordinated Compliance Reviews (CCR) to limit non-compliance findings to



those tests specifically listed as prohibited in the 1979 court decision or the 1989 Task Force report ” (p. 1). Yet he concluded with “Please keep in mind that no tests or measures of standardized intelligence or IQ should be used for the purpose of assessing African American students’ eligibility for special education even if it does not appear on any of the lists provided in the attachment”(p. 2). These two contradictory statements leave the reader with little guidance on identifying the CDE sanctioned method for assessing African American students for special education eligibility.

State policy has been enforced primarily through CCRs conducted by state consultants. Lopez (2001) reported that, both before and after the release of the 1997 CDE memorandum, CCR consultants were offering idiosyncratic “on-the-spot” opinions about the adequacy of administering a specific test to an African American student. Thus, districts are vulnerable to being found non-compliant in their assessment of African American students regardless of their best intentions. This vulnerability to being capriciously penalized for assessment practices is not surprising given a State policy that is explicit, albeit contradictory, on what not to do but offers little in terms of approved practices. Further research is needed to determine the scope and variability of the non-compliance penalties applied to California districts for their assessment of African American students.

### District Policy

Districts have responded to federal and state laws and regulations, case law, SEHO rulings, and CDE policies on intellectual assessment of African American students for special education eligibility in a variety of ways. Some have developed lists of “alternative assessments.” These alternative assessments often comprise a battery of processing tests and achievement subtests that are not designed to provide a general intelligence score. For example, Totton’s (2000) recommended “alternative assessment” battery contains four processing tests, subtests from two achievement tests, an adaptive test, and the Southern California Ordinal Scales, though how the results of these varied tests are to be combined to create an estimate of general intelligence required for determining eligibility under LD or MR criteria is unclear. Significant limitations to using this and similar batteries of tests include the administration of tests psychometrically inferior to standardized tests of intelligence and a non-theoretical, hodgepodge assessment of intelligence. Furthermore, the diagnosis for LD requires a discrepancy between intelligence and achievement caused by one or more of the basic psychological processes (California Education Regulations, Title 5, Section 3030 5CCR (j)a). Therefore, the use of processing tests or subtests of achievement batteries to derive cognitive ability obfuscates the assumed distinction between intelligence, achievement, and processing.

Some districts, such as Long Beach Unified School District, avoid the practice of replacing standardized tests of intelligence with standardized tests of processing or achievement by using interview, observation, and classroom work samples to estimate cognitive abilities (Long Beach Unified School District, 2002). Under this model, a psychologist would rule out developmental delays if the data suggested average abilities, and deduce that the disability causing academic failure must therefore be LD. In fact, there is support for this logic in California Education Regulations, Title 5, Section 3030 5CCR (j)c that allows the IEP team to determine a student eligible for special education services under the diagnosis of LD even if a discrepancy between achievement and cognition is not found through formal testing. A recent SEHO case involving an African American student referred for LD upheld a cognitive assessment based solely on review of record, interview, and observation (*Student v. Los Angeles Unified School District*, 2002).

Additional models for determining eligibility for special education are being piloted by nine California districts. While a review of those studies is beyond the scope of this article, some of the studies promote the traditional discrepancy model with greater refinement in conceptualization and measure-



ment of intelligence, processing and achievement, and others are more curriculum-based and emphasize intervention responsiveness and progress monitoring. Hopefully, each model will be evaluated on the basis of curbing over- and under-representation of minority youth in special education, as well as demonstrating positive educational outcomes for all students.

### School Psychologists' Practices

Currently, many school psychologists have adapted to the CDE ban and their own district's policies on intelligence testing by administering "alternative assessments." There is considerable variation in what psychologists consider alternative assessment. Some school psychologists avoid any test that refers to general intelligence in the manual or title (Lopez, 2001). Others will not report a general IQ or composite score, relying exclusively on less reliable subtest scores. Totten (2000) advised that best practice in alternative assessment of African Americans is to avoid intelligence testing altogether. Totten wrote "No standardized cognitive assessment instrument *should ever* [emphasis original] be given to this type of referred student" (p. 4). Lopez (2001) reported that some interpret the current CDE policy to prohibit the use of all standardized tests, including tests of achievement, for determining the eligibility of an African American student.

School psychologists may spend considerable time attempting to discern which standardized test of cognition or processing abilities remains legally sanctioned, yet the criteria used for selecting an acceptable test is unclear and often based on mythology rather than research or case law. For example, a school psychologist was reported to have declined an African American mother's request for traditional intellectual assessment of her child based on the rationale that, "the courts stated that public institutions can not administer an IQ test to an African American student due to the norms being inadequate for African Americans as decided by the *Larry P.* case" (M. S. Flores, personal communication, March 4, 2002). This quote highlights both the legal and psychometric confusion held by some psychologists. Current case law does not prohibit intellectual assessments of African American students for the purpose of determining special education eligibility (unless the student is being placed in an EMR program) and, as will be discussed next, intellectual assessments are not technically biased against African American students.

### TEST BIAS AND OTHER MEASUREMENT ISSUES

The rationale for prohibiting intelligence testing of African American students is commonly based on test bias. Test bias is assumed to exist because African American students' average performance on standardized tests of intelligence is lower than that of European American students' average performance (Brown et al., 1999; Jensen, 1980). Although this mean difference is often attributed to test bias, empirical research consistently indicates that standardized cognitive tests are not biased against native-born, English-speaking ethnic/racial subgroups (Brown et al., 1999). Those who erroneously admonish intelligence tests on the basis of racial bias typically offer one or more of the following criticisms: (a) inadequate representation of African American children in the standardization sample; (b) bias in content, predictive and/or construct validity; and (c) situational bias in administering intelligence tests. Although these positions are intuitively compelling they have not been supported empirically.

#### Representation in the Standardization Group

Since intelligence tests are largely developed and standardized on European American middle class children, it is sensible to posit that intelligence tests may be culturally biased against African





American children. Yet most published, standardized tests of intelligence that have withstood public scrutiny are based on a carefully selected standardization group that represents the nation. Any test that fails to offer a standardization sample proportionate to recent census data should be viewed as suspect. When using a quality test, African Americans will be represented in the norms used to calculate an individual's derived scores in the same proportions to which they populate the United States. Furthermore, a study conducted by Fan, Willson, and Kapes (1996) that systematically manipulated the representation of four ethnic groups in the test development sample found no evidence to support systematic bias against those with small or no representation in the test construction sample. Conversely, ethnic groups with larger representation in the test construction sample had no systematic advantage in test performance compared to those who are more sparsely represented (Fan et al., 1996).

### Test Validity

The criticisms regarding the validity of intelligence tests are directed specifically at the content, predictive, and construct validity of such tests. Content bias exists when items or subscales are relatively more difficult for members of one group than another when general ability levels are held constant. Subjective judgments by "experts" who identify specific items as biased have failed to provide compelling evidence of item bias (Brown et al., 1999). Empirical studies of item difficulty have found little evidence of bias (Jensen, 1980). For example, Ross-Reynolds and Reschly (1983) found very little or no evidence of item bias, in terms of internal consistency estimates, rank order of item difficulty, outlier analyses and point biserial correlations, among the performance of European American, African American and Hispanic students on six subtests of the WISC-R.

With respect to predictive validity, a test is said to be a biased predictor if its scores are poorer predictors of performance on a criterion (e.g., educational setting or job performance) for some groups than for others. A statistically significant difference between groups in the slope, intercept, or standard error of estimates of the separate regression lines for those groups suggests bias in predictive validity (Jensen, 1980). When comparing European Americans with African Americans, different regression intercepts do emerge, however, regression slopes are comparable (Jensen, 1980). These results indicate that although mean differences exist between European Americans and African Americans, intelligence tests predict equally well for each group. The majority of research on predictive validity has not found intelligence tests to yield differential predictive validity for European Americans and African Americans (Brown et al., 1999; Reynolds, Lowe, & Saenz, 1999).

Although criticism regarding the construct validity of intelligence tests has been raised with respect to their use with African Americans, empirical studies of the construct validity of intelligence tests provides consistent results for both European Americans and African Americans. For example, Kush et al. (2001) conducted exploratory and confirmatory factor analyses on WISC-III results gathered from European American and African American students included in the standardization sample and African American students referred for psychological evaluations in order to investigate the validity of using this instrument with African American students. The authors found substantial factorial similarity between the three groups of students, which supports the construct validity of the WISC-III. Kush et al. concluded that the WISC-III Verbal and Performance indices are "relatively robust indicators of intelligence for both White and Black children" (p. 80). A multi-sample confirmatory factor analysis study by Keith et al. (1995) failed to find evidence of construct bias in the K-ABC for a sample of European American and African American test takers. In short, researchers have not found consistent evidence of bias in construct validity of intelligence tests (Brown et al., 1999; Reynolds et al., 1999).

### **Situational Bias**

Another important criticism levied against the use of intelligence tests with minority students addresses situational bias. Situational bias includes contextual factors such as student motivation, examiner/examinee interaction effects, and antagonistic test session behaviors and thus, is not a psychometric property of the test per se. Though there have been few studies of situational bias in the school psychology literature (Brown et al., 1999), several studies have reported that the performance of ethnic minority students is unaffected by situational test-session behaviors or interactions between the examiner and examinee (Frisby, 1999; Mishra, 1982). In a recent study looking at the relation between culture and student test behavior, examiners rated African Americans test takers higher on test session behaviors (e.g., follows directions, shows interest in test activities) than would be expected based on their test scores (Frisby, 1999). These results are in direct opposition to the theory that situational bias is present and responsible for diminished test performance among African Americans.

### **Score-Based Inferences**

Research on the psychometric qualities of a test, such as validity, is based on and applies to groups of students not individuals. Studies such as those cited above provide evidence that cognitive tests do not produce biased results. However, an important and often overlooked subtlety of measurement stipulates that a test in isolation is neither valid nor invalid; validity is not a characteristic that is inherent to one test or another. Rather, a score based inference about a student's performance on a test is either valid or invalid (Popham, 1995). As Messick (1989) wrote "... what is to be validated is not the test or observation device as such but the inferences derived from the test scores" (p. 13). This is an important distinction to make in discussing intelligence testing of African American students because it rephrases the question from "Are intelligence tests valid for African Americans?" to "Did the student's performance on this intelligence test produce scores that accurately reflect this African American student's intelligence?" In order to answer this question, school psychologists must scrutinize the test's manual and render a clinical judgment based on the psychometric attributes of the test (including validity estimates), the testing conditions, the child's apparent effort, and the individual child's unique life experiences.

### **Consequential Validity**

Consequential validity is also not a psychometric property of a test or a group of tests per se. Rather consequential validity refers to the social consequences of test results. Though traditional standardized intelligence tests are not technically biased against African American students, their central role in special education identification may contribute to over- or even under-identification of African American students in special education programs. Messick (1994) wrote:

...it is not sufficient to provide evidence that the assessments are measuring the intended constructs. Evidence is also needed that the uses and interpretations are contributing to enhanced student achievement and, at the same time, not producing unintended negative outcomes. (p. 8)

Thus, the end results of an assessment in terms of the educational outcomes the student achieves are more important than which assessment tool is selected. This is especially important when considering the social consequences of over-identifying minority students as disabled.

African Americans on average score below European Americans on standardized tests of cognition (Brown et al., 1999) and African Americans as a group are over-represented in special education programs (U.S. Department of Education, 2002). While it is tempting to blame cognitive tests for these

outcomes, this assumption is spurious when one considers that lower cognitive scores actually *decrease* the likelihood of meeting the criteria for LD, the most prevalent disability. Sternberg and Grigorenko (2002) observed that students with poor reading skills from a low-socioeconomic African American community were disadvantaged because their lower IQ scores made it difficult for them to qualify for special education services under the IQ/achievement discrepancy criteria for LD. Accordingly, relatively lower IQ scores can not account for disproportionate representation of African Americans in any special education category, save MR. Hosp and Reschly (2003) determined that academic achievement along with demographic and economic variables predicted overrepresentation of African American student in ED, LD, and MR. Factors such as achievement and economic conditions that impact African American representation within each of the various special education categories and the *outcomes* of the programs that serve these students must be considered in order to understand the consequences of the current system of qualifying African American students for special education. As Cleary (1980) suggested “The problem is the special education classes. There would be no controversy about testing if kids blossomed when they were put into special education classes” (p. 7).

#### Current Status of Over-Representation in California Special Education Programs

Special education enrollment by ethnicity and disability suggests that replacing cognitive tests with alternate assessment methods has not resolved the problem of over-identification of African American students for special education programs. In California, 12% of African American students

**Table 1.**  
*California and National Percentages of Children Served in Three Special Education Categories by Race/Ethnicity*

Ethnicity	Learning Disabilities		Mental Retardation		Emotional Disturbance	
	California (%)	National (%)	California (%)	National (%)	California (%)	National (%)
American Indian/ Alaskan Native	6.37	6.15	0.55	0.98	0.44	0.82
Asian/Pacific Islander	1.43	1.68	0.33	0.40	0.06	0.21
Black	7.88	4.92	0.69	2.06	0.87	1.17
Hispanic	4.48	4.14	0.46	0.51	0.13	0.32
White	3.96	3.94	0.38	0.75	0.37	0.65
Total	4.21	4.36	0.43	0.93	0.27	0.72

*Note.* Based on the 2000 census population and children ages 6-12 served under IDEA during the 2000-2001 school year as reported in the 24<sup>th</sup> Annual Report to Congress on the Implementation of the Individuals with Disabilities Act (U.S. Department of Education, 2002).

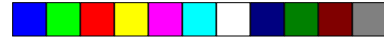
are identified as disabled, whereas only 7.4% of European American students and 3.5% of Asian American students are classified as disabled (U.S. Department of Education, 2002). Data reported in the 24<sup>th</sup> Annual Report to Congress on the Implementation of the Individuals with Disabilities Act (see Table 1) indicate African American students are almost twice as likely as European American students to be identified as having a LD, MR or ED in California. Compared to national statistics, however, Californians appear to have had some success in reducing over-representation in the MR disability category. Two percent of African Americans nation-wide are identified as meeting the criteria for MR, as compared to less than one percent in California. However, African Americans are identified for LD in California at nearly twice the rate of African Americans nationwide.

African American students in California are more than twice as likely as European American students and six times as likely as Hispanic students to be identified for the category of ED (U.S. Department of Education, 2002). A comparison between the enrollment rates of African American students in EMR programs just prior to *Larry P.* to current identification rates for LD and ED among African American students suggests the problem of over-representation has not been rectified; rather over identification has simply shifted disability categories (i.e., from MR to ED or LD). In 1969, less than 10% of the school population was African American, yet 25% of EMR students were African American (Elliott, 1987). In 2002, African American students constituted less than 9% of the public school population (California Department of Education, 2002a), while 23% of students identified as ED were African American (California Department of Education, 2002b). The over-representation of African American students in ED is alarming considering that nationwide students with ED are disproportionately served in restrictive settings such as separate public facilities and have the highest drop-out rate (51%) compared to students served under other disability categories (U.S. Department of Education, 2002).

### CRITICAL QUESTIONS

The outcomes of *Larry P.* raise the following three critical questions related to future policy making, educational processes, and school psychologists' role in curbing overrepresentation in special education.

1. *What lessons have been learned in the 25 years since Larry P. v. Riles that can be applied to future policies?* The *Larry P.* case raised very important issues about how competence and intelligence is defined and increased school psychologists' and other IEP team members' attention to issues of racial inequality. However, public policy applied to one race and not another, such as banning intelligence testing of African American students, suggests that members of that race unilaterally share one or more characteristics that are absent among members of other races. This reasoning fails to recognize the incredible diversity within a racial group and minimizes the experiences and characteristics that are shared across groups. Helms (1997) warned "selection according to group membership must not be misconstrued as constituting measurement of cultural criteria because a person's group designation may not reveal the person's cultural, social class, or racial socialization" (p. 529). Public policy applied to a single race raises difficult questions about who (the individual or the state) determines and how ("one-drop" rule, physical features, last name, etc.) to determine racial membership. The current CDE policy raises questions such as "Are intelligence tests not to be used with a student who is 1% African American and 99% European American?" or "Are intelligence tests prohibited for an African American student who is being raised by a European American family?" Considering that one in four Californian children are of mixed-race (Lopez, 2003) and other race-based policies in the history of America include Jim Crow laws and Japanese internment, the CDE ban on testing African American students is neither socially nor historically justified and constitutes a misstep that should not be re-



peated in future policymaking. Rather, future state and district policies should target underperforming students of all races and should stress evidence-based solutions rather than myopic solutions such as prohibiting a type of test.

2. *If current alternative assessment practices for identifying African American students eligible to receive special education services are psychometrically flawed, not lawfully required by the state department, and have failed to decrease overrepresentation of African Americans in special education in California, what component of the educational process should be altered to redress disproportional representation in special education?* Although attention has focused primarily on assessment tools and methodology as the step in the sequence responsible for overrepresentation in special education, understanding who is assessed and ultimately classified is a much larger socio-political issue. Contrary to State Department of Education conclusions, disproportionate referral and placement in special education may be a result of poor quality schools serving minority populations and a wait-to-fail model of special education. Changes to the education system that address these areas may have a larger effect on decreasing overrepresentation than finding the correct tools to document aptitude-achievement discrepancies in struggling African American learners in need of remedial instruction.

To determine why African American children are overrepresented in special education it is necessary to understand the factors that may have led to African American children being disproportionately referred for special education services. Although bias in teacher referrals has been identified as a possible factor, convergent research is not available to strongly advocate this position. A recent meta-analysis conducted by Hosp and Reschly (2002) concluded that students referred for special education eligibility, regardless of race or ethnicity, had low achievement or a combination of low achievement and behavior problems. Indeed, no African American students were referred who did not have low achievement. The incidence of disparate achievement among minority populations across grade levels is well documented (U.S. Department of Education, 2001). Research has strongly concluded that general education programs fail to provide quality instruction delivered by skilled and experienced teachers in schools that predominately serve minority and disadvantaged children (Betts, Rueben, & Dannenberg, 2000; Lee & Loeb, 1995; U.S. Department of Education 2001). The National Research Council (1999) documented inequities in school resources by race and income that directly relate to student achievement (e.g., class-size reduction and qualified staff). For example, Strickland (2001) reported that African American students are twice as likely to be assigned to teachers with less experience and expertise. In turn, African American children are more likely to need additional instruction and remediation and thus, are more likely to be referred for special education eligibility (Hosp & Reschly, 2002). These inadequacies in the public school system directly impact minority student achievement and may explain why African American students are referred and placed in special education programs disproportionately. While the CDE policy misguidedly focuses on prohibiting specific assessment tools to decrease overrepresentation, poor quality general education programs have been overlooked as a critical link in the chain of disproportionate minority placement in special education.

With the reauthorization IDEA, general educators will be expected to take greater responsibility for ensuring the provision of quality academic interventions at the earliest signs of academic difficulty. Thus, a child would not have to first fail in order to receive assistance. Researchers have concluded that the effectiveness of early intervention is considerably greater than the effectiveness of later, post-failure intervention (Juel, 1988; McGill-Franzen & Goatley, 2001 ). This change could reduce inappropriately identifying students as disabled when in fact their underachievement is the result of poor instruction. Since African American students are disproportionately exposed to poor instruction, requiring quality general education interventions may decrease overrepresentation of African American students in special education programs, particularly if those interventions are evidence-based and data-

driven. Marston, Muyskens, Lau, and Canter (2003) have, in fact, found a decrease in over-representation of African American students referred, assessed and found eligible for special education with the implementation of a problem-solving model that focused on data-based pre-referral interventions.

3. *What are the implications of Larry P. in the 21<sup>st</sup> century for school psychologists?* School psychologists may have persisted in using processing tests and other standardized, norm-referenced tests for determining eligibility because it is simpler to replace one test with another than to learn an entirely new method of assessment. Yet, as a professional group, psychologists have demonstrated great agility in their collective ability to make major adjustments to their assessment practices. For example, significant professional development occurred among psychologists in response to IDEA '97 and California education law and regulations (i.e., the Hughes Bill) requiring functional assessments of student behaviors. This suggests that psychologists will likely commit to significant re-training if the proper support and legal mandates were in place. Thus, an entirely new approach to determining special education eligibility, one based on interventions rather than tests, is a tenable option for improving the practices of California school psychologists and reducing overrepresentation of African American students in special education. The reauthorization of IDEA will likely include a resistance to intervention (RTI) criteria for classifying students as LD. This is a promising beginning, yet overrepresentation of African American students is more problematic in ED than LD. California has very thorough requirements for conducting functional analysis assessments for students with disabilities who exhibit behavioral difficulties (5CCR 3052[b][1]); adopting similar standards in determining *eligibility* for ED, such as identifying the conditions that maintain maladaptive behaviors, conducting an ecological assessment, and systematic observance of the target behavior(s) may reduce disproportional representation within the ED classification. A cogent agenda from the CDE and professional organizations that prioritizes assessments linked to intervention, progress monitoring, program evaluation, and community-home-school partnerships would not only serve to expand the role of many school psychologists so that their skills may be better utilized, it would better fulfill the promise of *Larry P. v. Riles*.

## CONCLUSION

The Larry P. Task Force (1989), which was established to guide CDE policy, sought to address four identified needs in public education (a) the amelioration of overrepresentation of African American students in special education, (b) the identification of nondiscriminatory alternative assessment processes, (c) equity and access by all pupils to quality instruction and a relevant core curriculum, and (c) continual cultural awareness and sensitivity within the entire education community. The Task Force concluded that solutions reside in more culturally relevant curricula, greater collaboration between general and special education, and problem solving teams – suggestions that are just as pertinent today. Unfortunately, more attention seems to have been paid to which tests the Task Force prohibited than to the complex issues about educational equity they raised. It is time to move beyond *Larry P.* and the controversy over IQ testing and refocus those efforts on identifying practices that improve the educational outcomes of all students.

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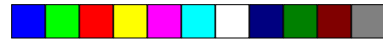
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