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**Attention and behaviour difficulties:
An annotated bibliography highlighting definition, identification and
assessment, intervention, rural, and cultural aspects with a focus on
indigenous youth**

Donna I. M. Spraggon

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Attention and behaviour difficulties: An annotated bibliography highlighting definition, identification and assessment, intervention, rural, and cultural aspects with a focus on indigenous youth.

Donna I. M. Spraggon¹

Introduction

The creation of this annotated bibliography² was necessary due to the paucity of a cohesive literature relating the many facets of attention and behaviour difficulties in youth. The definition of behaviour, attention, and oppositional defiant difficulties has yet to be adjusted in order to ensure cultural appropriateness. Similarly, identification, assessment and intervention strategies fail, for the most part, to accommodate the vast differences present in various cultures. Moreover, the differences in lifestyle and accessibility for rural youth can create many problems especially for those with behaviour and attention difficulties. Lastly, the role of parents/caregivers and teachers/paraprofessionals cannot be overlooked when addressing the challenge of providing resources for children at-risk.

¹ Special thanks are extended to Dr. Alan Bowd, Jodi Carlson, Sara Perkins and John Spraggon for their support and patience throughout the development of this paper. All errors, however, remain the sole responsibility of the author.

² This annotated bibliography was created using ERIC, Proquest Education, CBCA Education and Web of Science reference databases. Furthermore, the scope has been restricted to mainly journal articles and does not contain materials from the internet. For the most part, the abstracts are those presented by the cited authors, any additions/notes made by the current author are indicated by [DS].

Definition

Armstrong, T. (1996). ADD: Does it really exist? *Phi Delta Kappan*, 77(6), 424-428.

Armstrong questions the methods used to diagnose ADD as well as the existence of the disorder. This article, although dated, attests to the confusion over ADD and its diagnosis [DS].

Forness, S. R. (1992). Broadening the cultural organizational perspective in exclusion of youth with social maladjustment - First invited reaction to the Maag and Howell paper. *Remedial and Special Education*, 13(1), 55-59.

This article reviews the problem of exclusion from special education of children or youth with social maladjustment, but expands the conceptualization by placing it in the context of the historical need to limit services to children or youth with emotional or behavioral disorders and the current underidentification of such pupils. Definitional issues that tend to confuse the debate, at both the micro- and macroperspective level, are also considered.

Forness, S. R., & Kavale, K. A. (2000). Emotional or behavioral disorders: Background and current status of the E/BD terminology and definition. *Behavioral Disorders*, 25(3), 264-9.

In the late 1980s and early 1990s, efforts were made to propose an alternative to the then existing definition and terminology of serious emotional disturbance (SED). The proposed terminology, emotional or behavioral disorders (E/BD), was nearly adopted as an amendment to the Individuals with Disabilities Education Act (IDEA). A brief review of its development and current status is offered here, since several states are now beginning to revisit their own existing terminologies or definitions in order to respond to the change in terminology occasioned by the 1997 reauthorization of IDEA that dropped the term seriously from the SED terminology.

Lahey, B. B. (1999). Validity of DSM-IV attention-deficit/hyperactivity disorder for younger children (vol 37, pg 695, 1998). *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(2), 222.

Erratum for Lahey (1998) [DS].

Lahey, B. B., Pelham, W. E., Stein, M. A., Loney, J., Trapani, C., Nugent, K., Kipp, H., Schmidt, E., Lee, S., Cale, M., Gold, E., Hartung, C. M., Willcutt, E., & Baumann, B. (1998). Validity of DSM-IV attention-deficit/hyperactivity disorder for younger children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(7), 695-702.

Little is known about the validity of the diagnosis of attention-deficit/hyperactivity disorder (ADHD) in young children. Moreover, the results of the DSM-IV field trials raised concerns that inclusion of the new predominantly hyperactive-impulsive type of ADHD in DSM-IV might increase the likelihood of the diagnosis being given to active but unimpaired preschool and primary school children.

Method: The validity of DSM-IV criteria for each subtype of ADHD was evaluated in 126 children, aged 4 through 6 years, and 126 matched comparison children. Probands and controls were classified by using structured diagnostic interviews of the parent and a DSM-IV checklist completed by the teacher.

Results: Children who met DSM-IV criteria for each subtype of ADHD according to parent and teacher reports differed consistently from controls on a wide range of measures of social and academic impairment, even when other types of psychopathology and other potential confounds were controlled.

Conclusions: When diagnosed by means of a structured diagnostic protocol, all three DSM-IV subtypes of ADHD are valid for 4- through 6- year-old children in the sense of identifying children with lower mean scores on measures of adaptive functioning that are independently associated with ADHD.

Loeber, R., Burke, J. D., Lahey, B.B., Winters, A., & Zera, M. (2000). Oppositional defiant and conduct disorder: A review of the past 10 years, part 1. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39(12), 1468-1484.

Objective: To review empirical findings on oppositional defiant disorder (ODD) and conduct disorder (CD).

Method: Selected summaries of the literature over the past decade are presented.

Results: Evidence supports a distinction between the symptoms of ODD and many symptoms of CD, but there is controversy about whether aggressive symptoms should be considered to be part of ODD or CD. CD is clearly heterogeneous, but further research is needed regarding the most useful subtypes. Some progress has been made in documenting sex differences. Symptoms that are more serious, more atypical for the child's sex, or more age-atypical appear to be prognostic of serious disfunction. Progress has been made in the methods for assessment of ODD and CD, but some critical issues, such as combined information from different informants, remains to be addressed. A proportion of children with ODD later develop CD, and a proportion of those with CD later meet criteria for antisocial personality disorders. ODD and CD frequently co-occur with other psychiatric conditions.

Conclusions: Although major advances in the study of the prevalence and course of ODD and CD have occurred in the past decade, some key issues remain unanswered.

Power, T. J., & DuPaul, G. J. (1996). Attention-deficit hyperactivity disorder: The reemergence of subtypes. *School Psychology Review, 25*(3), 284-296.

The Diagnostic and Statistical Manual of Mental Disorders- Fourth Edition (DSM-IV) reflects several important changes related to our knowledge of children with attention-deficit hyperactivity disorder (ADHD). In particular, this classification system now recognizes three subtypes of ADHD and mandates that symptoms of ADHD result in significant impairment in two or more broad settings to meet criteria for this disorder. The current article describes the major modifications in the diagnostic criteria for ADHD reflected in the DSM-IV and summarizes research findings pertinent to these changes. In addition, the clinical utility and limitations of the DSM-IV with regard to the practice of school psychology are discussed. Included are specific suggestions to guide school psychologists in the assessment of ADHD.

Reid, R., Maag, J. W., & Vasa, S. F. (1993). Attention-deficit hyperactivity disorder as a disability category - a critique. *Exceptional Children*, 60(3), 198-214.

Attention deficit hyperactivity disorder (ADHD) has generated a great deal of interest recently among the special education profession. Various groups have advocated making ADHD a separate disability category under the Individuals with Disabilities Education Act. As a result, children with this disorder would be eligible for special education services. Proponents argue that at least 50% of students with ADHD currently are not receiving special education services they require under existing categories. The argument for considering ADHD as a disability category rests on the assumption that it is a valid psychiatric disorder and is characterized by academic difficulties. We challenge the validity of these assumptions and examine social and cultural factors we believe fuel the perceived need for ADHD as a new disability category.

Rey, J. M. (1993). Oppositional defiant disorder. *American Journal of Psychiatry*, 150(12), 1769-1778.

Objective: Oppositional defiant disorder is a common clinical diagnosis that has attracted little research interest, and doubts about its validity as a distinct category remain. However, it underwent substantial changes from DSM-III to DSM- III-R, and more are proposed for DSM-IV. The objective of this study was to review the literature on this condition to establish its place in the psychiatric nosology.

Method: The terms used in computerized searches of the literature included "oppositional disorder," "oppositional defiant disorder," and "oppositional behavior." Publications found by these searches were supplemented with references in articles, searches in the epidemiological literature, and noncomputerized searches.

Results: Findings of studies in which multivariate analyses were used support a distinction between oppositional defiant disorder and conduct disorder. In these studies, one- third of all community-based children with any psychiatric condition had a diagnosis of oppositional defiant disorder and used mental health services often. Symptoms of oppositional defiant disorder appear to be stable over time

and to have a developmental profile and sex distribution different from those of conduct disorder. The reliability of the diagnosis is low.

Conclusions: There is some support for oppositional defiant disorder as a category that reflects an oppositional-aggressive psychological dimension, which is different from a delinquent dimension. There is little evidence for making oppositional defiant disorder a part of the construct of conduct disorder and for making "lying" a criterion for it. Considerable impairment should be required for the diagnosis. A more detailed description of symptoms, including a threshold for considering them present, may increase reliability of the diagnosis.

Silver, L. B. (1990). Attention-deficit hyperactivity disorder: Is it a learning disability or a related disorder? *Journal of Learning Disabilities*, 23(7), 394-397.

Silver discusses the history, current status, and questions regarding the classification of ADHD as a learning disability [DS].

Cultural

Barrera, M., Biglan, A., Ary, D., & Li, F. Z. (2001). Replication of a problem behavior model with American Indian, Hispanic, and Caucasian youth. *Journal of Early Adolescence, 21*(2), 133-157.

The replicability of a model of family and peer influences on adolescent problem behavior was evaluated with samples of adolescent boys and girls from three ethnic groups: American Indians, Hispanics, and Caucasians. Participants were 1,450 seventh-grade students from 16 communities. The model included links between three aspects of family functioning (family conflict, positive family relations, and inadequate parental monitoring) and adolescents' association with deviant peers. Those variables were hypothesized predictors of adolescents' problem behavior (antisocial behavior, poor school performance, and frequency of substance use). The resulting cross-sectional model showed good consistency across the three ethnic groups for both genders, but some subgroup differences emerged in the magnitude of relations between monitoring and adolescents' associations with deviant peers and between substance use and the problem behavior construct. With those qualifications, the model was applicable to Hispanic and Native American adolescents in the sample.

Beare, P. L. (1986). Programming for behaviorally disordered Native Americans. *Journal of American Indian Education, 25*(2), 24-31.

Providing services for Behaviorally Disordered (BD) students is a uniquely difficult task. When the BD students are Native Americans, efficacious programming is particularly difficult. The described program attempts to serve this population through an approach combining Goal Attainment Scaling, group meetings, individual counseling and tutoring. Aspects of the program were especially designed to create a goodness of fit between the Native American consumer and the school district offering educational services. Results demonstrate a decrease in the number of failing academic grades and a decrease in the number of classroom tardies. No significant change in attendance behavior

was revealed. Discussion focused on environmental factors increasing and decreasing program success.

Borowsky, I. W., Resnick, M. D., Ireland, M., & Blum, R. W. (1999). Suicide attempts among American Indian and Alaska Native youth - risk and protective factors. *Archives of Pediatrics & Adolescent Medicine*, 153(6), 573-580.

Context: American Indians and Alaska Natives have the highest suicide rates of all ethnic groups in the United States, and suicide is the second leading cause of death for American Indian and Alaska Native youth.

Objective: To identify risk and protective factors associated with suicide attempts among Native male and female adolescents.

Design: The 1990 National American Indian Adolescent Health Survey.

Setting: Schools of reservation communities in 8 Indian Health Service areas.

Participants: Eleven thousand six hundred sixty-six 7th-through 12th-grade American Indian and Alaska Native youth.

Main Outcome Measures: Responses were compared among adolescents with and without a self-reported history of attempted suicide. Independent variables included measures of community, family, and individual characteristics. Separate analyses were conducted for boys and girls.

Results: Ever attempting suicide was reported by 21.8% of girls and 11.8% of boys. By logistic regression done on boys and girls separately, suicide attempts were associated with friends or family members attempting or completing suicide; somatic symptoms; physical or sexual abuse; health concerns; using alcohol, marijuana, or other drugs; a history of being in a special education class; treatment for emotional problems; gang involvement; and gun availability. For male and female youth, discussing problems with friends or family, emotional health, and connectedness to family were protective against suicide attempts. The estimated probability of attempting suicide increased dramatically as the number of risk factors to which an adolescent was exposed increased; however, increasing protective factors was more effective at reducing the probability of a suicide attempt than was decreasing risk factors.

Conclusions: A history of attempted suicide was associated with several risk and

protective factors. In addition to targeting youth at increased risk, preventive efforts should include promotion of protective factors in the lives of all youth in this population.

Bussing, R., Schoenberg, N. E., & Perwien, A. R. (1998). Knowledge and information about ADHD: Evidence of cultural differences among African American and white parents. *Social Science & Medicine*, 46(7), 919-928.

Attention deficit hyperactivity disorder (ADHD) is considered the most common child psychiatric disorder in the United States of America. Despite the high prevalence (estimated at 3-5%), little is known about the level and source of knowledge about ADHD among those affected by the disease, and about cultural and ethnic variations in knowledge levels and information sources. This represents a serious deficit, because health behavior, including demand for health services, is thought to be strongly influenced by knowledge or beliefs held by individuals and their networks. Furthermore, recent research suggested minority children may be less likely to receive services for ADHD. To examine possible differences in ADHD knowledge and information source, a sample of 486 African-American and white parents of children at high risk for ADHD were surveyed by telephone and subsequently participated in face-to-face interviews addressing their explanatory models of ADHD. Results revealed significant ethnic differences in knowledge and sources of information about ADHD. Fewer African-American parents than white parents indicated that they had ever heard of ADHD (69% compared to 95%, $p < 0.001$), or that they knew some or a lot about it (36% compared to 70%, $p < 0.001$) African-American parents were more likely to attribute ADHD to excessive sugar in the diet than whites (59% compared to 30.0%, $p < 0.001$). Finally, even though the physician was listed as the most preferred information source for both groups, only 17.5% of African-American parents reported they had received information about ADHD from the physician compared to 29% of whites ($p < 0.01$). African American parents reported less use of and less preference for written informational materials (newspapers, journals, library) than white parents. We conclude that substantially more research should be undertaken to examine the relationship between ethnicity

and ADHD knowledge, to inform culturally appropriate education campaigns and to improve access to services for this important treatable child mental health condition.

Capage, L. C., Bennett, G. M., & McNeil, C. B. (2001). A comparison between African American and Caucasian children referred for treatment of disruptive behavior disorders. *Child & Family Behavior Therapy, 23*(1), 1-14.

To develop more culturally sensitive treatments for child behavior problems it is important to examine the impact that ethnicity has on behavioral assessment, diagnosis and treatment. The current study investigated archival data of African American and Caucasian families referred for treatment of disruptive behavior problems. Subjects were 56 children between the ages of 35 and 90 months ($M = 64$ months). Half of the participants were African American ($n = 28$) and half were Caucasian ($n = 28$). Subjects from the two groups were matched on age, gender, income, and treatment location. Following the completion of pretreatment assessments (e.g., Eyberg Child Behavior Inventory, Parenting Stress Index), Subjects and their parent(s) received treatment using Parent-Child Interaction Therapy (PCIT). No significant differences between groups were found on the pretreatment measures or measures of treatment outcome. Results are discussed with respect to the importance of considering cultural issues when assessing child behavior disorders and providing parent training.

Coutinho, M. J., & Oswald, D. P. (1998). Ethnicity and special education research: Identifying questions and methods. *Behavioral Disorders, 24*(1), 66-73.

This article presents questions, offers ideas, and solicits input regarding hypotheses and methodologies needed to extend our understanding of the ethnic representation of students identified as having serious emotional disturbance (SED). Technical methods are discussed to ensure that estimates of the extent of disproportionate representation are accurate, technically defensible, and interpretable for purposes of further research and policy decisions. Research questions and analyses needed to produce a better conceptual understanding of why disproportionality occurs are explored. Societal issues are described that

influence definitions, methods, and interpretations and will continue to influence capacity to respond to the problem of disproportionate ethnic representation of students with SED.

Coutinho, M. J., Oswald, D. P., & Forness, S. R. (2002). Gender and sociodemographic factors and the disproportionate identification of culturally and linguistically diverse students with emotional disturbance. *Behavioral Disorders, 27*(2), 109-25.

The purpose of this study was to investigate gender and ethnicity disproportionality among students identified as having emotional disturbance (ED) and relationships between identification and sociodemographic factors. School districts' sociodemographic characteristics were found to be strongly associated with the proportion of students identified as having ED. Results also indicated a clear association between ethnicity/gender and the likelihood of being identified as having ED, even after sociodemographic effects were accounted for. Adjusted odds ratios illustrated how the likelihood of identification for gender/ethnicity groups changed when sociodemographic effects were taken into account. The nature and direction of the relationship with identification rates were further explored for two of the sociodemographic variables. Policy and research recommendations are provided in the context of the critical need to improve identification and services for students with ED.

Crijnen, A. A. M., Achenbach, T. M., & Verhulst, F. C. (1999). Problems reported by parents of children in multiple cultures: The child behavior checklist syndrome constructs. *American Journal of Psychiatry, 156*(4), 569-574.

Objective: The purpose of this study was to compare syndromes of parent-reported problems for children in 12 cultures.

Method: Child Behavior Checklists were analyzed for 13,697 children and adolescents, ages 6 through 17 years, from general population samples in Australia, Belgium, China, Germany, Greece, Israel, Jamaica, the Netherlands, Puerto Rico, Sweden, Thailand, and the United States.

Results: Comparisons of nine cultures for subjects ages 6 through 17 gave medium effect sizes for cross-cultural variations in withdrawn and social

problems and small effect sizes for somatic complaints, anxious/depressed, thought problems, attention problems, delinquent behavior, and aggressive behavior. Scores of Puerto Rican subjects were the highest, whereas Swedish subjects had the lowest scores on almost all syndromes. With great cross-cultural consistency, girls obtained higher scores than boys on somatic complaints and anxious/depressed but lower scores on attention problems, delinquent behavior, and aggressive behavior. Although remarkably consistent across cultures, the developmental trends differed according to syndrome. Comparison of the 12 cultures across ages 6 through 11 supported these results.

Conclusions: Empirically based assessment in terms of Child Behavior Checklist syndromes permits comparisons of problems reported for children from diverse cultures.

Dion, R., Gotowiec, A., & Beiser, M. (1998). Depression and conduct disorder in Native and non-Native children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(7), 736-742.

Objective: To compare depression and conduct disorder symptoms between North American Native and non-Native children as rated by teacher, parent, and self-reports.

Method: The sample included 1,251 Native children in grades 2 and 4 in four different settings across North America and comparison samples of 457 non-Native children. Parents, teachers, and children rated children's mental health using culturally sensitive measures of depression and conduct disorder symptoms.

Results: According to parent ratings and child self-reports, there were no Native/non-Native differences in levels of conduct disorder symptoms. However, non-Native teachers rated higher levels of conduct disorder symptoms among Native children compared with non-Native students. Children reported higher levels of depression than the adults rating them.

Conclusions: Results challenge assertions about high levels of psychopathology among Native youngsters. Cultural distance may introduce a negative bias in teacher evaluations of Native children's mental health.

Ehlers, C. L., Wall, T. L., Garcia-Andrade, C., & Phillips, E. (2001). Visual P3 findings in Mission Indian youth: Relationship to family history of alcohol dependence and behavioral problems. *Psychiatry Research, 105*(1-2), 67-78.

Native Americans have some of the highest rates of alcohol abuse and dependence, yet risk factors for problem drinking remain relatively unknown. The amplitude of the P3 component of the event-related potential (ERP) has been suggested to be an index of 'vulnerability to alcoholism', especially when it is elicited by visual tasks in younger individuals. Visual P3 tasks, however, have not been previously investigated in Native American youth. One hundred and four Mission Indian youth between the ages of 7 and 13 years participated in the study. ERPs were collected using two visual target paradigms: a facial discrimination and an estimation of line orientation task. Analyses of covariance revealed that participants with a first degree family history of alcoholism had lower P3 component amplitudes in frontal leads to the facial discrimination task. Lower P3 amplitudes, in posterior areas, were found in the line discrimination task in children who scored above the 75th percentile in delinquent behaviors on the Achenbach Child Behavior Checklist. These findings are consistent with investigations in non-Indian populations demonstrating that the late positive component of the event related potential is sensitive to both familial history of alcohol dependence as well as personal history of externalizing behaviors.

Green, B. E., Sack, W.H., & Pambrum, A. (1981). A review of child psychiatric epidemiology with special reference to American Indian and Alaska Native children. *White Cloud Journal of American Indian Alaska Native Mental Health, 2*(2), 22-36.

There are special problems inherent in classifying the psychiatric behavior of children for the purposes of epidemiology. The American Psychiatric Association's Diagnostic and Statistical Manual, third edition (DSM-III), is chosen here as the best system now available. After reviewing the various diagnoses covered by the third edition, the authors review what is known about the psychiatric problems found among American Indian and Alaska Native

children. Many of the DSM-III categories have not been covered in the Indian literature. Among those problems which the literature has identified among Indians are: abuse, neglect, and foster care; schooling and school problems; delinquency; substance abuse; and suicide. Past studies have indicated that there are some differences in the incidence rates of various diagnoses between Indians and the rest of the U.S. population.

Habel, J., Bloom, L. A., Ray, M. S., & Bacon, E. (1999). Consumer reports - what students with behavior disorders say about school. *Remedial and Special Education, 20*(2), 93-105.

The purpose of this study was to describe how one group of consumers of special education services -- students with or at risk for behavior disorders -- experienced school. We present the perspective of these students within the social constructivist framework represented by the circle of courage, a holistic approach to childrearing and community building based on traditional Native American philosophy. Seventeen students with or at risk for behavior disorders participated in semiformal small-group or individual interviews. Thematic analysis of the interview data yielded the following three categories representative of the students' experiences with respect to the four spirits of the circle of courage: (a) the students' view of themselves with respect to each of the spirits, (b) the students' perspective about school experiences that encourage each of the spirits, and (c) the students' perspective about school experiences that discourage each of the spirits. To reflect the richness and coherence of the students' accounts, results are presented using direct quotes and discussed within the context of current research in behavior disorders.

Harry, B. (1994). Behavioral disorders in the context of families. In R. L. Peterson & S. Ishii-Jordan (Eds.). *Behavioral disorders in the context of culture and community* (pp. 149-161). Cambridge, MA: Brookline Books.

Henderson, E., Kunitz, S. J., Gabriel, K. R., McCright, A., & Levy, J. E. (1998). Boarding and public schools: Navajo educational attainment, conduct disorder, and alcohol dependency. *American Indian and Alaska Native Mental Health Research*, 8(2), 24-45.

Many critics of United States government operated boarding schools for American Indians have asserted that the boarding school experience has lasting deleterious effects on personality development. Specifically, it has been suggested that a boarding school education is likely to lead to problems with alcohol in adulthood. To examine that assertion, data from interviews with over 1000 Navajos are analyzed concerning schooling, conduct disorder and the history of alcohol use. Consistent with data on the U.S. population generally, Navajo high school dropouts reported greater problems with alcohol than did graduates. Contrary to expectations, Navajos with a history of alcohol dependency were no more likely to have attended boarding schools than those who did not report patterns of alcohol dependency.

Ishii-Jordan, S., & Peterson, R. L. (1994). Multicultural issues in the education of students with behavioral disorders. In R. L. Peterson & S. Ishii-Jordan (Eds.). *Behavioral disorders in culture and community* (pp. 251-262). Cambridge, MA: Brookline Books.

Jones, R., Masters, M., Griffiths, A., & Moulday, N. (2002). Culturally relevant assessment of Indigenous offenders: A literature review. *Australian Psychologist*, 37(3), 187-197.

This paper is the first in a two-part series reviewing the current state of Indigenous programming in correctional settings. The focus is Australian, with a local Victorian emphasis, but literature from Indigenous sources in other countries such as New Zealand and Canada has also been included where relevant. This first paper is assessment-focused. It begins by describing contextual factors that are relevant to Indigenous offender service provision, such as ethnocentrism and the ongoing consequences of colonisation. Several principles to improve program responsiveness to these influences are offered. A range of overlapping risk factors and needs for Indigenous offenders is then reviewed, underpinned by Ward and

Stewart's (in press) model of human flourishing. These factors form the basis for culturally-relevant assessment of Indigenous offenders. The paper concludes with implications for intervention, or cultural healing. This sets the context for a second paper, which elaborates on promising culturally relevant interventions in correctional settings.

Kallam, M., Hoernicke, P. A., & Coser, P. G. (1994). Native Americans and behavioral disorders. In R. L. Peterson & S. Ishii-Jordan (Eds.). *Multicultural issues in the education of students with behavioral disorders* (pp. 126-137). Cambridge, MA: Brookline Books.

Kunitz, S. J., Gabriel, K. R., Levy, J. E., Henderson, E., Lampert, K., McCloskey, J., Quintero, G., Russell, S., & Vince, A. (1999). Alcohol dependence and conduct disorder among Navajo Indians. *Journal of Studies on Alcohol*, 60(2), 159-167.

Objective: The purpose of this study is to examine the association between conduct disorder before age 15 and subsequent alcohol dependence, and to describe the lifetime prevalence of alcohol dependence among Navajo Indian women and men.

Method: This was a case-control design which included both men (n = 735) and women (n = 351) and in which the Diagnostic Interview Schedule was used for the diagnosis of the lifetime history of alcohol dependence and conduct disorder. Alcohol dependent cases were selected from inpatient and out-patient treatment programs (204 men, 148 women). Whenever possible, controls were matched for age, sex and community of residence and were randomly selected and interviewed until a nonalcohol dependent individual was found. Among the men, there were 374 alcohol dependent controls and 157 nonalcohol dependent controls. Among the women, the figures were 60 and 143, respectively. When combined, the controls comprise samples of the adult male and female populations from which estimates of lifetime prevalence of alcohol dependence, and of the amount of alcohol dependence in the population attributable to conduct disorder, may be inferred.

Results: Conduct disorder is a risk factor for alcohol dependence among both men and women. Lifetime prevalence of alcohol dependence in this population is high

(70.4% for men and 29.6% for women), but the amount of alcohol dependence in the population attributable to conduct disorder is low. On the other hand, among the alcohol dependent, those with conduct disorder had the most severe alcohol- and nonalcohol-related problems.

Conclusions: The potential limitations of the study are those common to case-control designs, especially biased recall by cases. There are also potential sampling biases among the controls. It is shown that none of the potential biases invalidate the findings, which support the hypothesis that in this population conduct disorder is a risk for alcohol dependence. The implications for primary prevention of alcohol dependence are discussed.

Kunitz, S. J., Gabriel, K. R., Levy, J. E., Henderson, E., Lampert, K., McCloskey, J., Quintero, G., Russell, S., & Vince, A. (1999). Risk factors for conduct disorder among Navajo Indian men and women. *Social Psychiatry and Psychiatric Epidemiology*, *34*(4), 180-189.

Objectives: To describe the risk factors for conduct disorder before age 15 among Navajo Indians.

Methods: The study was based on a survey of a stratified random sample of adult Navajo Indians between the ages of 21 and 65 living on and adjacent to two different areas of the Navajo Reservation. There were 531 male and 203 female respondents. The average age (SD) of the men was 38.7 (10.5) years and of the women 35.5 (9.0) years. Conduct disorder was diagnosed retrospectively using the Diagnostic Interview Schedule first developed for the Epidemiological Catchment Area study. The responses were combined into a continuous scale.

Results: Significant risk factors for increased scores on the conduct disorder scale were: histories of physical and sexual abuse in childhood; abusive maternal drinking; a small number of households per camp; younger age; and being male rather than female. Measures of social status and religion in which subjects were raised were not significant.

Conclusions: Many of the risk factors that are associated with conduct disorder in other populations are also risk factors in the Navajo population. There is suggestive evidence that some of these risk factors have become more common

since World War II, raising the possibility that conduct disorder has become more prevalent, as is thought to be the case nationwide.

Kunitz, S. J., Levy, J. E., McCloskey, J., & Gabriel, K. R. (1998). Alcohol dependence and domestic violence as sequelae of abuse and conduct disorder in childhood. *Child Abuse & Neglect*, 22(11), 1079-1091.

Objectives: To examine in the Navajo population: (1) the importance of childhood abuse as a risk factor for conduct disorder; (2) the importance of each form of abuse and conduct disorder as risk factors for alcohol dependence; and (3) the relative importance of each form of abuse, conduct disorder, and alcohol dependence as risk factors for being a perpetrator and/or victim of domestic violence.

Method: The study is based on a case-control design, Cases (204 men and 148 women) between the ages of 21 and 65 were interviewed in alcohol treatment program and matched to community controls. There were two groups of controls: alcohol dependent (374 men, 60 women) and nonalcohol dependent (157 men, 143 women). When adjusted for stratification by age, community of residence, and sex, the combined control groups comprise a representative sample of the Navajo male and female population 21-65 years of age.

Results: The prevalence of physical and sexual abuse before age 15 is within limits observed in other populations. Each form of abuse is a risk factor for conduct disorder. Along with conduct disorder, physical abuse is a risk factor for alcohol dependence. Physical abuse and alcohol dependence are independent risk factors for being involved in domestic violence as both perpetrator and victim. There appears to have been no secular trend in the incidence of childhood abuse over the past several generations, but there is suggestive evidence that domestic violence has become more common.

Conclusions: Physical abuse is a significant risk factor for alcohol dependence as well as for domestic violence independent of the effects of alcohol abuse. The effects of sexual abuse with regard to both domestic violence and alcohol dependence do not appear to be significant.

Kvernmo, S., & Heyerdahl, S. (1998). Influence of ethnic factors on behavior problems in indigenous Sami and majority Norwegian adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(7), 743-751.

Objective: To explore the relationship between behavior problems and ethnic factors in indigenous minority Sami and Norwegian majority adolescents in northern Norway.

Method: The Youth Self-Report (YSR) was completed by 249 Sami and 210 Norwegian students in junior high school, aged 13 to 16 years. Parents completed the Child Behavior Checklist (CBCL). Behavior problems were assessed in relation to ethnicity and ethnic context (geographic region and family context).

Results: Rates of behavior problems (CBCL and YSR) were generally high in both ethnic groups and were highest among girls. Sami adolescents, particularly those living in assimilated ethnic communities, reported more behavior problems than Norwegian adolescents.

Conclusion: Ethnic factors have significant impact on behavior problems in indigenous minority adolescents living in a multiethnic context.

Kvernmo, S., & Heyerdahl, S. (2003). Acculturation strategies and ethnic identity as predictors of behavior problems in arctic minority adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(1), 57-65.

Objective: To explore the effect of acculturation attitudes and ethnic and national identity on behavior problems in arctic minority adolescents in northern Norway.

Method: The Youth Self-Report, the Multigroup Ethnic Identity Measure, and acculturation strategies were completed by 581 indigenous Sami and 291 Kven high school students in 1994-1995, at age 15-18 years. Response rate was 85%. Behavior problems were in addition to ethnic/national identity and acculturation attitudes studied in relation to ethnicity, gender, age, socioeconomic status, parentage, ethnic language, and ethnic context.

Results: Although there were no ethnic group differences in behavior problems, the impact of ethnocultural predictors differed between ethnocultural and indigenous adolescents. Acculturation attitudes were most significant for indigenous adolescents' mental health, and identity issues showed the strongest

impact on ethnocultural peers. The study revealed significant gender differences regarding the influence of ethnocultural factors, and contextual variation among Sami adolescents with the strongest impact in contexts with low density of Sami people.

Conclusions: The significant ethnic group variations emphasize the importance of conducting both between- and within-group analysis on the impact of ethnocultural issues on behavior problems in minority adolescents.

Lasky, B. (1994). Language and behavioral disorders. In R. L. Peterson & S. Ishii-Jordan (Eds.). *Multicultural issues in the education of students with behavioral disorders* (pp. 178-183). Cambridge, MA: Brookline Books.

McNeil, C. B., Capage, L. C., & Bennett, G. M. (2002). Cultural issues in the treatment of young African American children diagnosed with disruptive behavior disorders. *Journal of Pediatric Psychology*, 27(4), 339-350.

Objective: To discuss issues relevant to treating young African American children with disruptive behavior disorders.

Method: We treat behavior disorders, correlates of behavior disorders, and special differences between African American and Caucasian children that could lead to or explain behavior problems.

Discussion: The majority of the information on young children diagnosed with disruptive behavior disorders has been obtained primarily from Caucasian children and families. Unfortunately, this reliance on Caucasian data neglects the unique needs of minorities and may lessen the quality of the services that they receive. Omission of ethnic concerns becomes even more salient with the increasing ethnic diversity among children and families in the United States.

Conclusions: We suggest future research and clinical directions that will ultimately assist clinicians to provide high-quality mental health services to African American children.

McNeil, D. W., Porter, C. A., Zvolensky, M. J., Chaney, J. M., & Kee, M. (2000). Assessment of culturally related anxiety in American Indians and Alaska Natives. *Behavior Therapy, 31*(2), 301-325.

The present investigation was aimed at developing a means to measure culturally related anxiety in American Indians and Alaska Natives. Initial item selection and factor structure for a self-report instrument, the Native American Cultural Involvement and Detachment Anxiety Questionnaire (CIDAQ), were derived from samples of American Indian and Alaska Native college students representing numerous tribal groups. The factor structure then was replicated in a more homogeneous group of Navajo college students. The scale contains three factors, measuring anxiety about (a) social involvement with Native Americans and cultural knowledge, (b) economic issues, and (c) social involvement with the majority (Caucasian) culture. The scale showed high levels of item-total reliability, internal consistency, as well as convergent and divergent validity. We discuss the CIDAQ, and suggest it is a promising measure for researchers examining culturally related anxiety in American Indians and Alaska Natives, particularly in college counseling and other behavioral health-care centers.

Oosterheld, J. R., Kofoed, L., Tervo, R., Fogas, B., Wilson, A., & Fiechtner, H. (1998). Effectiveness of methylphenidate in Native American children with fetal alcohol syndrome and attention deficit hyperactivity disorder: A controlled pilot study. *Journal of Child and Adolescent Psychopharmacology, 8*(1), 39-48.

This pilot study was designed to assess the short-term effectiveness and side effects of methylphenidate in treating symptoms of attention deficit hyperactivity disorder (ADHD) in Native American children (5 to 12 years old) with documented fetal alcohol syndrome (FAS) or partial fetal alcohol syndrome. Using strict criteria for the diagnosis of FAS and ADHD, a randomized double-blind cross-over study of two placebos and a fixed dose of methylphenidate was completed in 4 Native American children in a residential school. Each treatment condition lasted 5 days, and daily observational outcome measures, the Conners Parent Rating Scale (CPRS-48), and the Conners Teacher Rating Scale (CTRS-39), were employed. Methylphenidate significantly improved scores of the

Hyperactivity Index Scale on the CPRS-48 and the CTRS-39 but not the Daydreaming-Attention score on the CTRS-39, Side effects were similar to those traditionally found in other populations. The promising preliminary results suggest that a more definitive study of methylphenidate in Native and non- Native children with FAS and ADHD is warranted.

Oswald, D. P., Coutinho, M. J., Best, A. M., & Singh, N. N. (1999). Ethnic representation in special education: The influence of school-related economic and demographic variables. *Journal of Special Education, 32*(4), 194-206.

The purpose of this study was to provide current information on the representation of African American students as mildly mentally retarded (MMR) and seriously emotionally disturbed (SED) and to describe the influence of economic, demographic, and educational variables on the identification of minority students for special education. The sample consisted of the districts selected for the Fall 1992 Elementary and Secondary School Civil Rights Compliance Report survey. Odds ratios were constructed for MMR and SED to describe the nature and extent of disproportionate representation. Regression models were tested to investigate the influence of a set of school-related demographic and fiscal variables on disproportionate representation. Results indicated that African American students were about 2.4 times more likely to be identified as MMR and about 1.5 times more likely to be identified as SED than their non-African American peers. Economic and demographic Variables were significant predictors of disproportionate representation but influenced identification of students as MMR and SED in different ways. Implications for research are discussed.

Park, E. K., Piullis, M., Reilly, T. F., & Townsend, B. L. (1994). Cultural biases in the identification of students with behavioral disorders. In R. L. Peterson & S. Ishii-Jordan (Eds.). *Multicultural issues in the education of students with behavioral disorders* (pp. . 14-26). Cambridge, MA: Brookline Books.

Piasecki, J. M., Manson, S. M., Biernoff, M. P., Hiat, A. B., Taylor, S. S., & Bechtold, D. W. (1989). Abuse and neglect of American Indian children - findings from a survey of federal providers. *American Indian and Alaska Native Mental Health Research*, 3(2), 43-62.

Child abuse and neglect is of growing concern in many American Indian and Alaska Native communities. The present paper represents one attempt to add to the existing, albeit sparse, knowledge base concerning the abuse and neglect of American Indian children. It reports the results of a survey of federal human service providers in which the subject of child abuse and neglect in Indian communities figured prominently. The study took place at several locations in Arizona and New Mexico. Data were obtained using the key-informant method from 55 federal service providers who identified 1,155 children, from birth to 21 years for inclusion in the survey. Children were included if they were currently in mental health treatment, if they were in need of mental health treatment, or if they were known to have been abused or neglected. Particular emphasis was given in the data collection to abuse- and neglect-related factors such as living arrangements, familial disruption, psychiatric symptoms, substance abuse, and school adjustment. The patterns evident in this sample closely resemble those trends identified among abused and/or neglected children in the general population. Sixty-seven percent of the sample was described as neglected or abused. The presence of abuse and/or neglect was strongly related to severe levels of chaos in the family. Children who were described as both abused and neglected had more psychiatric symptoms, greater frequency of having run away or been expelled, and greater frequency of drug use.

Potthoff, S. J., Bearinger, L. H., Skay, C. L., Cassuto, N., Blum, R. W., & Resnick, M. D. (1998). Dimensions of risk behaviors among American Indian youth. *Archives of Pediatrics & Adolescent Medicine*, 152(2), 157-163.

Objectives: To explore the covariation of risk behaviors in a national sample of American Indian reservation-based youth using listwise principal components factor analysis and to determine how these risk behaviors may vary by age and sex.

Design: Analysis of data from the National Indian Adolescent Health Survey, a validated anonymous self-report questionnaire of 162 items addressing various health domains.

Setting: The survey was administered nationally in more than 200 reservation-based schools.

Participants: Thirteen thousand nine hundred twenty-three reservation-based American Indian or Alaska Native students in grades 7 through 12 representing more than 50 tribes. The listwise factor analysis sample included 7687 respondents with complete data.

Main Outcomes Measures: Item loadings and factor correlations by age and sex for 30 risk behaviors across various health domains.

Results: Three risk behavior factors were fairly stable across sex and age: (1) the use of alcohol, tobacco, and other drugs, (2) risky sexual behavior; and (3) suicidal behaviors. Correlations between these and other factors suggested different strengths of relationships by sex and age. Other factors, including violence, truancy, and delinquency, showed differences in item loading on factors and correlations between factors. The use of tobacco, alcohol, and other drugs was most frequently associated with other risk behavior factors, and suicidal behaviors showed the next highest frequency of intercorrelations.

Conclusions: There are sex and age differences in the covariation of risk behaviors, and suicidal behaviors should be further investigated to determine if our findings are unique to American Indian youth. Health interventions that focus categorically on 1 risk dimension should also emphasize substance use prevention and intervention. To prevent substance abuse among American Indian youth, research efforts need to focus on effective strategies for coping with social and psychological stressors.

Zhang, D. L., & Katsiyannis, A. (2002). Minority representation in special education: A persistent challenge. *Remedial and Special Education, 23*(3), 180-187.

Overrepresentation of minority students in special education has been a concern for more than 3 decades. Such overrepresentation has triggered a number of legal

challenges, educational reforms, and legislative actions. However, a question still remains in the field: Have there been any recent changes or improvements? We addressed this question by analyzing data published by the federal government. Racial representation along with regional variations and state poverty rates were examined. The results indicated that American Indian/Alaskan Native and African American students were overrepresented in high-incidence disabilities (i.e., emotional and behavioral disorders, learning disabilities, and mental retardation); that significant regional variations existed in minority representation, but that these variations were not correlated with state poverty rates; and that racial representation in certain disability categories was negatively correlated with state poverty rates for certain racial groups.

Zvolensky, M. J., McNeil, D. W., Porter, C. A., & Stewart, S. H. (2001). Assessment of anxiety sensitivity in young American Indians and Alaska Natives. *Behaviour Research and Therapy*, 39(4), 477-493.

In the present study, the Anxiety Sensitivity Index [ASI; Behav. Res. Ther. 24 (1986) 1] was administered to 282 American Indian and Alaska Native college students in a preliminary effort to: (a) evaluate the factor structure and internal consistency of the ASI in a sample of Native Americans; (b) examine whether this group would report greater levels of anxiety sensitivity and gender and age-matched college students from the majority (Caucasian) culture lesser such levels; and (c) explore whether gender differences in anxiety sensitivity dimensions varied by cultural group (Native American vs. Caucasian). Consistent with existing research, results of this investigation indicated that, among Native peoples, the ASI and its subscales had high levels of internal consistency, and a factor structure consisting of three lower-order factors (i.e. Physical, Psychological, and Social Concerns) that all loaded on a single higher-order (global Anxiety Sensitivity) factor. We also found that these Native American college students reported significantly greater overall ASI scores as well as greater levels of Psychological and Social Concerns relative to counterparts from the majority (Caucasian) culture. There were no significant differences detected

for ASI physical threat concerns. In regard to gender, we found significant differences between males and females in terms of total and Physical Threat ASI scores, with females reporting greater levels, and males lesser levels, of overall anxiety sensitivity and greater fear of physical sensations: no significant differences emerged between genders for the ASI Psychological and Social Concerns dimensions. These gender differences did not vary by cultural group, indicating they were evident among Caucasian and Native Americans alike. We discuss the results of this investigation in relation to the assessment of anxiety sensitivity in American Indians and Alaska Natives, and offer directions for future research with the ASI in Native peoples.

Identification and Assessment

Asmus, J. M., Vollmer, T. R., & Borrero, J. C. (2002). Functional behavioral assessment: A school based model. *Education and Treatment of Children, 25*(1), 67-90.

Functional behavioral assessment (FBA) procedures, when based on behavior analytic principles, are useful in identifying factors associated with problematic and adaptive behavior for students with disabilities. In addition, interventions based on the results of a FBA are likely to be effective and durable. The 1997 amendment of the Individuals with Disabilities Education Act (IDEA) requires that a FBA must be conducted in the school setting when a child exhibits significant behavioral difficulties. Currently, it is not clear what constitutes and appropriate FBA. Applied behavior analysts have the unique opportunity to assist school personnel to develop effective and appropriate assessment services. We describe a comprehensive model for the application of behavior analysis in the school. The model includes descriptive assessment, functional analysis, intervention, and involves the participation of teachers and parents.

Beare, P. L., & Lynch, E. C. (1986). Underidentification of preschool children at risk for behavioral disorders. *Behavioral Disorders, 11*(3), 177-83.

Federal legislation (PL 94-142) has placed the responsibility for the identification, screening, assessment, and placement of young children exhibiting or at risk for learning, behavioral, and/or cognitive problems with the local public schools. It is children who exhibit mild to moderate delays or differences in the area of social development that are often difficult to identify through the yearly preschool screening efforts common to most school systems. This study employed a comparison of students on a standardized behavioral checklist and follow-up observations to examine the underidentification of behavioral disorders in the preschool population attending licensed daycare settings. Results indicated that the profiles of children identified by their early education teacher as having behavior problems resembled the profiles of children in the same communities enrolled in early childhood special education for this problem. Observation of

these target children in the daycare setting confirmed the teachers behavioral ratings. Changes in screening procedures and service delivery are discussed.

Bullis, M., Bull, B., Johnson, P., & Johnson, B. (1994). Identifying and assessing community-based social-behavior of adolescents and young adults with EBD. *Journal of Emotional and Behavioral Disorders*, 2(3), 173-188.

Adolescents and young adults (ages 15 to 25) with emotional and behavioral disorders (EBD) experience difficulties living in society in large part because of social skill deficits in interacting with peers and adults. Our research first identified and described community-based social behaviors for persons with EBD by following the behavioral analytic model, then used this information to develop measures of these behaviors. Three measures were developed: male and female forms of the Test of Community-based Social Skill Knowledge (TCSK), the Scale of Community-based Social Skill Performance (CBSP), and Behaviors That Are Undesirable for Living and Leisure in Society (BULLIS). In the TCSK, the young person is presented with a number of social interactions between peers or adults and four alternative responses of varying effectiveness to each interaction. The young person then states which alternative is most like what he or she would do if involved in such a situation. The CBSP is a behavior-rating scale completed by a person knowledgeable about the individual's social skill performance in community placements. The BULLIS is a self report measure of antisocial behaviors that is administered individually. The measures were field-tested, and psychometric analyses were conducted. These results generally were acceptable, demonstrating adequate reliabilities and discriminant power to differentiate between persons with and without EBD.

Bullis, M., & Davis, C. (1997). Further examination of two measures of community-based social skills for adolescents and young adults with emotional and behavioral disorders. *Behavioral Disorders*, 23(1), 29-39.

Two measures of community-based social behavior for adolescents and young adults with emotional and behavioral disorders (E/BD), the male and female forms of the Test of Community Based Social Skill Knowledge (TCSK) and the

Scale of Community Based Social Skill Performance (CBSP), were examined. In previous research, conceptually derived subsections of the two measures yielded high intercorrelations, suggesting the need to conduct further analyses to refine and shorten both instruments to make them more applicable for use in school and service programs. The male and female forms of the TCSK were each treated as one factor. Item-total correlations were computed, identifying 17 items in the female form and 15 items in the male form to be deleted. Factor analysis of the CBSP yielded a logical and psychometrically adequate factor structure, with a total of 78 items across four factors. The shortened TCSK forms and the four CBSP factors (a) yielded acceptable reliabilities, (b) discriminated among subgroups of participants, and (c) exhibited convergent and divergent correlations in hypothesized directions. These results are discussed in terms of their implications for social skills instruction and future research on the measures.

Cluett, S. E., Forness, S. R., Ramey, S.L., Ramey, C.T., Chuanchieh, H., Kavele, K.A., & Gresham, F.M. (1998). Consequences of differential diagnostic criteria on identification rates of children with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 6(3), 130-140.

What constitutes an appropriate diagnostic workup for children with emotional or behavioral disorders (EBD) varies in both school and clinic settings. Current definitions of EBD suggest that a symptom checklist should be required, but there is some disagreement about what constitutes a functional impairment and what role out-of-school assessments should play. The purpose of this study was to determine the impact of different diagnostic criteria on EBD identification by systematically varying the respondent for the symptom checklist (parent and/or teacher) and the type of functional impairment (poor academic achievement and/or poor social skills) required for diagnosis. The sample included 3,694 children in second grade, who were part of a longitudinal sample of Head Start graduates. Clinical cutoff points on behavior problem checklists from parents and teachers, on social skills ratings from parents and teachers, and on individual measures of academic achievement were serially applied to the sample to determine the rate of EBD identification with various combinations of

instruments. The 13 different diagnostic combinations identified from 1.1% to 27.5% of the sample. Four of these combinations resulted in significant ethnic or gender bias. Findings are discussed with reference to current diagnostic criteria used for EBD in school or clinical settings.

Cooper, L. J., Wacker, D. P., Thursby, D., Plagmann, L. A., Harding, J., Millard, T., & Derby, M. (1992). Analysis of the effects of task preferences, task demands, and adult attention on child-behavior in outpatient and classroom settings. *Journal of Applied Behavior Analysis, 25*(4), 823-840.

Two studies were conducted with children who displayed behavior problems to evaluate the effects of task preference, task demands, and adult attention on child behavior. In Study 1, we conducted brief functional analyses in an outpatient clinic to identify variables that facilitated appropriate behavior. For 8 of 10 children, distinct patterns of performance occurred; 3 children displayed improved behavior with changes in task demands, 1 child displayed improved behavior with a preferred task, and 4 children displayed improved behavior with changes in adult attention. In most cases, the children's parents carried out the assessments with adequate procedural integrity. In Study 2, we applied similar assessment methods to a classroom setting over an extended period of time. We identified independent variables controlling appropriate, on task, and academic behavior for 2 children on two tasks, with slightly different treatment procedures across tasks for both children. In addition, the results of brief functional analyses for both children corresponded to the extended classroom assessments.

Coutinho, M. J., Oswald, D. P., & Best, A. M. (2002). The influence of sociodemographics and gender on the disproportionate identification of minority students as having learning disabilities. *Remedial and Special Education, 23*(1), 49-59.

The purpose of this study was to investigate the extent of gender and race/ethnicity disproportionality among students identified as having learning disabilities (LD) and to investigate relationships between disproportionality and sociodemographic factors. Using nationally representative data collected by the U.S. Office for Civil Rights, this study examined the effects of gender, ethnicity,

and sociodemographic factors on the proportion of students who are identified as having LD. Results indicated a clear association between ethnicity and gender and the odds of being identified as a student with LD. Sociodemographic factors for a school district were also found to be strongly associated with the proportion of students identified as having LD. A logistic regression model that included the nine sociodemographic variables, gender, and race, was significantly better at predicting LD identification than a model that included sociodemographic predictors alone. Adjusted odds ratios illustrated how the likelihood of identifying LD changes when sociodemographic influences are taken into account. Findings indicated that both individual student characteristics and district sociodemographic characteristics are important in determining the likelihood of LD identification and that the impact of the sociodemographic characteristics is different for each of the gender-ethnicity groups.

Deutscher, B., & Fewell, R. R. (2001). The development and use of the attention deficit hyperactivity disorder-observational rating scale: Factor analysis and a preliminary investigation of predictive validity. *Journal of Psychoeducational Assessment, 19*(4), 317-333.

The Attention Deficit Hyperactivity Disorder-Observational Rating Scale (ADHD-ORS; Deutscher & Fewell, 1996) was developed and used to rate 702 videotapes of 30-month-old, premature, low-birthweight toddlers born at eight medical schools across the nation. Coders were trained to score the 12-item scale according to specific criteria for each of 5 points on the Likert scale. Scores were subjected to a principal components factor analysis with varimax and promax rotations. The results support three factors that closely match the three main attributes of the disorder. These factors were identified as inattention, overactivity, and impulsivity. Six-month predictive validity with selected items from the Child Behavior Checklist was also determined. Implications for use in preschool settings and directions for future research are considered.

Eiraldi, R. B., Power, T. J., Karustis, J. L., & Goldstein, S. G. (2000). Assessing ADHD and comorbid disorders in children: The Child Behavior Checklist and the Devereux scales of mental disorders. *Journal of Clinical Child Psychology*, 29(1), 3-16.

Evaluated discriminant validity and clinical utility of selected subscales of the Devereux Scales of Mental Disorders (DSMD; Naglieri, LeBuffe, & Pfeiffer, 1994) and the Child Behavior Checklist (CBCL; Achenbach, 1991a) in 228 children referred to a clinic for the evaluation and treatment of attention deficit hyperactivity disorder (ADHD). The DSMD is a multi-axial behavior rating scale that measures symptomatology for a broad range of child psychopathology as described in the Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev. [DSM-R-III] and 4th ed. [DSM-IV]; American Psychiatric Association, 1987, 1994). Discriminant function analyses as well as sensitivity, specificity, and predictive power analyses were computed to evaluate the discriminant validity and clinical utility of selected DSMD and CBCL subscales for assessing ADHD, oppositional defiant disorder (ODD), and anxiety disorders. Results indicated that the DSMD compared very favorably with the CBCL in the ability to discriminate between children with ADHD and those without ADHD and between children with comorbid ODD and anxiety disorders and children who did not meet criteria for these disorders. The DSMD Attention subscale may be somewhat better at ruling in ADHD combined subtype (ADHD-C) and ADHD inattentive subtype (ADHD-I) than the CBCL Attention Problems subscale, but the CBCL Attention Problems subscale may have slightly better utility than the DSMD Attention subscale in ruling out these subtypes. Both the CBCL and DSMD were more useful for ruling out than for ruling in ODD and anxiety disorders.

Epstein, M. H. (1998). Strength-based assessment: The behavioral and emotional rating scale. *Behavioral Healthcare Tomorrow*, 7(3), 46-48.

"Assessment is the process of collecting data for the purposes of making decisions," according to noted researchers Salvia and Ysseldyke (1995). These decisions involve screening, diagnosing, and labeling children, determining eligibility of children for services, and evaluating the outcomes of these programs.

A number of assessment approaches are available to collect data for decision-making purposes. While these approaches are based on different assumptions and use different measures and data collection procedures, they were developed to identify problems. In the area of children's emotional and behavior disorders, several measures are available that document the pathologies, deficits, and problems of children, and in general, these instruments have strong psychometric characteristics.

Epstein, M. H. (1999). The development and validation of a scale to assess the emotional and behavioral strengths of children and adolescents. *Remedial and Special Education, 20*(5), 258-262.

Strength-based assessment has received considerable attention from parents and professionals in child welfare, family services, education, mental health, and other social services. The Behavioral and Emotional Rating Scale: A Strength-Based Approach to Assessment was developed to provide parents and professionals with a standardized norm-referenced, reliable, and valid instrument to measure strengths. Several pilot studies were conducted to establish the validity of the scale prior to the scale being normed on a nationally representative sample. The purpose of the present article is to report on these validity studies.

Epstein, M. H., Nordness, P. D., Nelson, J.R., & Hertzog (2002). Convergent validity of the Behavioral and Emotional Rating Scale with primary grade-level students. *Topics in Early Childhood Special Education, 22*(2), 114-121.

Two convergent validity studies of the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998), a standardized, norm-referenced instrument for assessing the emotional and behavioral strengths of children, were conducted with primary school-age students. In the first study, the BERS was compared with three social adjustment scales from the Systematic Screening for Behavior Disorders (Walker & Severson, 1990), a multigate screening system for identifying children at risk of behavior problems. In the second study, the BERS was compared with the subscales of the Scale for Assessing Emotional Disturbance (Epstein & Cullinan, 1998), a standardized, norm-referenced scale

that assists in the identification of children who qualify for the federal special education category of emotional disturbance. Results indicated that the BERS demonstrated adequate convergent validity. The BERS instrument is recommended for identifying students with special needs, developing strength-based goals and interventions for areas requiring improvement, and evaluating outcomes.

Epstein, M. H., Cullinan, D., Harniss, M.K., & Ryser, G. (2002). Scale for assessing emotional disturbance: Long-term test-retest reliability and convergent validity with kindergarten and first-grade students. *Remedial and Special Education, 23*(3), 141-148.

Two studies on young children are reported, addressing the psychometric characteristics of the Scale for Assessing Emotional Disturbance (SAED), a standardized, norm-referenced instrument based on the federal definition of emotional disturbance (ED). The main purpose of the SAED is to assist in identifying children with emotional disturbance by operationally defining ED as stated in the Individuals with Disabilities Education Act Amendments of 1997. The first study investigated the long-term test-retest reliability of the SAED over a 7-month period. The second study examined the convergent validity of the SAED by comparing it with several subscales of the Systematic Screening for Behavior Disorders, a multigate screening system to identify children at risk of behavior problems. The results indicate that the SAED is a reliable and valid instrument for identifying young children who may qualify for the federal definition of ED.

Epstein, M. H., Ryser, G. & Pearson, N. (2002). Standardization of the Behavioral and Emotional Rating Scale: Factor structure, reliability, and criterion validity. *Journal of Behavioral Health Services & Research, 29*(2), 208-216.

The present study reports on the standardization of the Behavioral and Emotional Rating Scale and examines its factor structure, reliability, and criterion validity. Data on a national sample of children without disabilities (n = 2,176) and children with emotional and behavioral disorders (n = 861) were collected. Analysis of the data from the first sample identified five factors: interpersonal strengths, family involvement, intrapersonal strength, school functioning, and affective

development. The factors appeared to be highly stable and reliable (.79 to .99). No statistically significant age or gender differences were noted, although females were rated higher on each factor and the overall score. The second sample was rated significantly lower than the first across the factors and total score. The article discusses future research issues and practical implications.

Ervin, R. A., DuPaul, G. J., Kern, L., & Friman, P. C. (1998). Classroom-based functional and adjunctive assessments: Proactive approaches to intervention selection for adolescents with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 31*(1), 65-78.

The present investigation evaluated the utility of classroom-based functional and adjunctive assessments of problem behaviors for 2 adolescents who met diagnostic criteria for attention deficit hyperactivity disorder (ADHD) and comorbid oppositional defiant disorder (ODD). For children with ADHD-ODD, environmental classroom variables, when systematically manipulated by teachers, were related to the occurrence and nonoccurrence of problem behaviors. Classroom interventions derived from information that was obtained during functional and adjunctive assessments and from subsequent analyses resulted in substantial reductions in problem behaviors. Teacher and student consumer satisfaction ratings indicated that the interventions were effective and feasible in the classroom setting.

Feil, E. G., Walker, H., Severson, H., & Ball, A. (2000). Proactive screening for emotional/behavioral concerns in head start preschools: Promising practices and challenges in applied research. *Behavioral Disorders, 26*(1), 13-25.

There is a growing need for cross-cultural research on screening instruments appropriate for use with young children from culturally diverse backgrounds who are at risk for emotional or behavioral problems. Head Start classrooms provide an ideal environment for (a) conducting applied research and (b) encouraging best practices in screening, assessment, and early detection among diverse multicultural low-income populations. This research assessed the cross-cultural psychometric characteristics and validity of a multiple-gating screening procedure used by the Early Screening Project (ESP) to screen and identify children at risk

for behavioral problems in Head Start centers in rural and urban sites in Oregon. The ESP procedure relies on teacher judgments, in vivo behavioral observations, and normative criteria to identify preschool children exhibiting serious behavioral problems. This research provides initial evidence that the ESP can be used appropriately within the context of multicultural Head Start populations.

Fewell, R. R., & Deutscher, B. (2002). Attention deficit hyperactivity disorder in very young children: Early signs and interventions. *Infants and Young Children, 14*(3), 24-32.

The number of children diagnosed with attention deficit hyperactivity disorder (ADHD) is rising. It is now considered the most common neuropsychiatric syndrome in US school-age children, affecting 3% to 5%, or approximately 2 million children. ADHD is a chemical imbalance in the brain resulting in inappropriate degrees of inattention, hyperactivity, and impulsivity; these symptoms must be present prior to age 7. ADHD is difficult to diagnose as it is linked to many other conditions such as learning disabilities, conduct disorders, bipolar disorders, and manic-depressive illnesses. The authors offer information on behaviors signaling the need for referral in very young children and describe the positive and negative effects of common medications. They suggest specific behavioral coping strategies for both home and group care settings.

Forness, S. R., Cluett, S. E., Ramey, C. T., Ramey, S. L., Zima, B. T., Hsu, C., Kavale, K. A., & MacMillan, D. L. (1998). Special education identification of head start children with emotional and behavioral disorders in second grade. *Journal of Emotional and Behavioral Disorders, 6*(4), 194-204.

Underidentification of emotional and behavioral disorders (EBD) appears to be a particular problem for children from low-income families. In the current study, two cohorts of 3,694 second-grade children across 30 sites were screened for EBD as part of a larger study on Head Start transition. At-risk status for EBD was determined by developing two sets of research diagnostic criteria. One set reflected the current federally mandated school definition of emotional disturbance (ED), which requires that ED symptoms in school be accompanied by functional impairment in academic or social skills. The second set reflected a

proposed alternative definition that would require both school and parent involvement in determining the presence of symptoms. Children were assessed using clinical cutoff points on behavior ratings; from teachers and parents, along with a determination of functional impairment in social skills or academic achievement. Actual school identification of children was done through a school archival records search in the spring of the children's second-grade year. Identification rates for the criteria sets were 16.9% for the current school definition and 6.2% for the alternative definition. Most participants identified by either criteria set were identified by the schools as belonging in categories other than emotional disturbance. Findings are discussed in relation to misidentification of children with EBD and possible gender or ethnic biases.

Forness, S. R., Kavale, K. A., MacMillan, D. L., Asarnow, J. R., & Duncan, B. B. (1996). Early detection and prevention of emotional or behavioral disorders: Developmental aspects of systems of care. *Behavioral Disorders, 21*(3), 226-240.

Although current systems of care for children with emotional or behavioral disorders generally focus on wrap-around services in an interagency or interdisciplinary network, it is not clear that potential for early detection and prevention is fully realized. Problems in early identification in current systems are discussed along with current methods for early screening. Use of early detection and ongoing assessment of response as a basis for more focused intervention is described. Primary and secondary prevention issues also are discussed in relation to this approach.

Forness, S. R., Ramey, S. L., Ramey, C. T., Hsu, C. C., Brezausek, C. M., MacMillan, D. L., Kavale, K. A., & Zima, B. T. (1998). Head start children finishing first grade: Preliminary data on school identification of children at risk for special education. *Behavioral Disorders, 23*(2), 111-124.

Although Head Start has a mandate to serve children with disabilities as at least 10% of its population, few systematic data are available on identification of children in various disability categories in the years immediately following their preschool experience. In the study reported here, two cohorts of 4,161 children

across 30 sites were followed through first grade as part of a larger study on transition assistance. At-risk status was assessed at the beginning of kindergarten by developing research diagnostic criteria (RDC) for four major special education categories using clinical cut-off points on language, achievement, and social skills measures and indicators of speech or mental health problems on parent interviews. The school identification of study participants in each RDC was determined by a search of school archival records in the spring of first grade. Only 26% of the children meeting RDC in the four major categories were identified by the schools, and little concordance was observed among categories. Findings are discussed in relation to disability categories, with particular reference to assumptions about underidentification of children with emotional or behavioral disorders.

Forness, S. R., Serna, L. A., Nielsen, E., Lambros, K., Hale, M. J., & Kavale, K. A. (2000). A model for early detection and primary prevention of emotional or behavioral disorders. *Education and Treatment of Children, 23*(3), 325-345.

A truly effective early detection and primary prevention program for children who are considered high-risk should probably not begin just in the school years but should instead focus on preschool settings such as Head Start. There are effective tools for screening preschool children for emotional or behavioral disorders that can be used to detect problems before they become significant, but these are generally not in common use. There are also classroom-wide intervention techniques that are being used in the primary grades to prevent emotional or behavioral disorders; yet the nature of an effective universal mental health interventions for preschool children is not entirely clear. Skill building approaches, however, appear to be critical as prevention strategies. A self-determination curriculum on direction following, sharing, decision making, and other social or behavioral skills would therefore seem to offer definite advantages. One of the best examples of the use of early detection and a self-determination curriculum is the Head Start Program of Youth Development Incorporated (YDI) in Albuquerque, New Mexico. The rationale for this approach and the program itself are described along with preliminary data on its effectiveness.

Fox, J., Conroy, M., & Heckaman, K. (1998). Research issues in functional assessment of the challenging behaviors of students with emotional and behavioral disorders. *Behavioral Disorders, 24*(1), 26-33.

One of the more significant developments in the treatment of challenging behavior has been the development of techniques of functional assessment and intervention. Much research in this area and many of the instruments and techniques initially focused on chronic aberrant behavior of persons with severe disabilities. More recently, functional assessment has been applied to students who have or are at risk for emotional and behavioral disorders (E/BD) and who have mild or no cognitive disabilities. Studies involving functional assessment of students with E/BD and those who are at risk for E/BD are reviewed in three main areas: (1) characteristics of participants; (2) types of functional assessment procedures and instruments employed; and (3) the reliability and validity of these instruments and procedures. Issues for future research in functional assessment are detailed.

Glutting, J. J., Robins, P. M., & de Lancey, E. (1997). Discriminant validity of test observations for children with attention deficit hyperactivity. *Journal of School Psychology, 35*(4), 391-401.

This paper investigated the discriminant validity of test-session behaviors by comparing whether the observations of children with Attention-Deficit/Hyperactivity Disorder (ADHD) differed from those of unclassified controls. Test-taking behaviors were evaluated according to the Guide to the Assessment of Test Session Behavior for the WISC-III and WIAT (GATSB) (Glutting & Oakland, 1993) following administrations of the Wechsler Intelligence Scale for Children-Third Edition (WISC-III) (Wechsler, 1991). Two groups were compared: an ADHD cohort (n=49) and children from the GATSB standardization sample (n=49) matched on the background characteristics of age, race, gender, parent educational attainment, and overall cognitive ability. A multivariate, two-group discriminant function analysis was used to compare groups. Results showed children with ADHD could be differentiated., Wilks &

Igr; = 0.632, $F = 18.96$, $df(3, 94)$, $p < .01$. A classification analysis was used to evaluate the practical utility of the discrimination. The overall hit rate was 80.6% ($p < .05$), thereby adding to the overall validity of results. Findings suggest that in the course of one-to-one clinical assessments, standardized ratings of children's test behaviors provide useful information about the relative severity of children's inattentive, avoidant, and uncooperative dispositions, and that these factors can affect the magnitude of children's IQs.

Gresham, F. M., Watson, T. S., & Skinner, C. H. (2001). Functional behavioral assessment: Principles, procedures, and future directions. *School Psychology Review*, 30(2), 156-172.

Through amendments to the Individuals with Disabilities Education Act (IDEA), federal law mandated the use of functional behavioral assessments (FBA) and positive behavioral support plans to address challenging behaviors presented by students in school settings. Although these have long been considered "best practice" in the field of applied behavior analysis, their use by school psychologists has a much briefer history. To assist school psychologists in becoming better acquainted with FBA, we present in this article overviews of the conceptual foundations and underlying principles of FBA and the methods and procedures associated with conducting FBAs in school settings.

Harding, J., Wacker, D. P., Cooper, L. J., Asmus, J., Jensen-Kovalan, P., & Grisolano, L. A. (1999). Combining descriptive and experimental analyses of young children with behavior problems in preschool settings. *Behavior Modification*, 23(2), 316-333.

This investigation shows the merits of preceding experimental analyses with descriptive analyses of functional variables with preschool children who engage in problematic behavior. A two-phase descriptive analysis was conducted in daycare settings with three children. In Phase 1, the authors assessed the relation between child behavior and structural events. During Phase 2, the same behavior was replotted by functional variables. The results showed that when the descriptive data were plotted via functional variables, specific hypotheses could be generated regarding the variables controlling appropriate behavior. This

procedure permitted the subsequent use of very brief experimental analyses to further identify functional relations. The use of descriptive analyses of functional rather than structural variables may be an important component in the assessment of problem behavior in community settings.

Harding, J., Wacker, D. P., Cooper, L. J., Millard, T., & Jensen-Kovalan, P. (1994). Brief hierarchical assessment of potential treatment components with children in an outpatient-clinic. *Journal of Applied Behavior Analysis*, 27(2), 291-300.

Seven parents conducted assessments in an outpatient clinic using a prescribed hierarchy of antecedent and consequence treatment components for their children's problem behavior. Brief assessment of potential treatment components was conducted to identify variables that controlled the children's appropriate behavior. Experimental control via a brief reversal was achieved for 6 of the 7 children, (1 child continued to behave appropriately following initial improvement in behavior). For these 6 children, improved behavior occurred with changes in treatment components. Our results extend previous studies of direct assessment procedures conducted in outpatient clinic settings.

Harniss, M. K., Epstein, M. H., Ryser, G., & Pearson, N. (1999). The behavioral and emotional rating scale: Convergent validity. *Journal of Psychoeducational Assessment*, 17(1), 4-14.

In this article, two studies that investigate the convergent validity of the Behavioral and Emotional Rating Scale (BERS) are reported. In both studies, special education teachers of students identified as seriously emotionally disturbed completed the BERS and a second measure of child functioning. In the first study, the five BERS subscales and overall strength quotient were correlated with the five subscales and total score from the Walker-McConnell Scale of Social Competence and School Adjustment-Adolescent Version. Correlations were generally moderate to high. In the second study, the BERS was correlated to the five competence scales, the broad-band dimensions (i.e., Internalizing and Externalizing), and the Total Problem score of Achenbach's Teacher Report Form. Correlations were generally moderate to high for the competence scales

and the externalizing dimension, but not for the internalizing dimension.

Recommendations for use of the BERS are discussed.

Larson, P. J., & Maag, J. W. (1998). Applying functional assessment in general education classrooms - issues and recommendations. *Remedial and Special Education, 19*(6), 338-349.

Functional assessment involves generating hypotheses about the purpose a behavior serves and the environmental variables maintaining it in order to develop effective and efficient interventions. Functional assessment has been used extensively with students with severe disabilities in special education settings. However, few applications of functional assessment have been reported with students with mild disabilities in general education classrooms. The purpose of this article is to address the use of functional assessment in general education classrooms with students with mild disabilities. We present the theoretical foundations of functional assessment, describe the procedures involved in conducting a functional assessment, discuss some of the obstacles to applying functional assessment in general education classrooms, and make recommendations for the future use of functional assessment in general education classrooms with students with mild disabilities.

Loeber, R., Lahey, B. B., & Thomas, C. (1991). Diagnostic conundrum of oppositional defiant disorder and conduct disorder. *Journal of Abnormal Psychology, 100*(3), 379-390.

Evidence for a diagnostic distinction of oppositional defiant disorder (ODD) and conduct disorder (CD) is reviewed, and alternative conceptualizations and definitions for the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* are considered. Studies suggest that CD and ODD are strongly and developmentally related but clearly different. Factor analyses indicate that distinct covarying groups of ODD and CD symptoms can be identified, but certain symptoms relate to both (particularly mild aggression and lying). Age of onset for ODD is earlier than for most CD symptoms. Nearly all youths with CD have a history of ODD, but not all ODD cases progress to CD. The disorders

demonstrate the same forms of parental psychopathology and family adversity but to a greater degree for CD than for ODD. Alternative conceptualizations for the disorders are presented for further study before the introduction of the *DSM-IV*.

Maag, J. W., & Kemp, S. E. (2003). Behavioral intent of power and affiliation-implications for functional analysis. *Remedial and Special Education, 24*(1), 57-64.

Functional analysis is determining the intent (or purpose) a behavior serves by manipulating relevant variables. There are two major functions of problem behavior: (a) to obtain something desirable, such as attention from others or tangible objects/activities (positive reinforcement), and (b) to escape/avoid something aversive, such as a difficult task (negative reinforcement). However, two well-researched constructs from the social psychology literature—power/control and affiliation—may be valid outcomes for some students. The purpose of this article is to consider power/control and affiliation as valid functions for some students' maladaptive behaviors and describe how school-based manipulations for testing them may be performed.

Maag, J. W., & Reid, R. (1994). Attention-deficit hyperactivity disorder: A functional approach to assessment and treatment. *Behavioral Disorders, 20*(1), 5-23.

Although numerous terms have been used to describe Attention-Deficit Hyperactivity Disorder (ADHD) during the past several decades, it has continued to be conceptualized from a biological or neurological perspective. Consequently, much research has accumulated investigating possible biological and neurological causes, developing better diagnostic criteria, and accumulating medication protocols. Despite voluminous amounts of research, little consensus has been reached as to the best way to define and diagnose ADHD. Consequently, it becomes difficult to generate and test hypotheses related to the etiology, characteristics, and treatment of this disorder. One problem related to how ADHD is conceptualized. In approaching ADHD as a psychiatric condition, assessment usually focuses on improving diagnostic precision. Similarly, most treatment research has dealt with the use of psychopharmacological agents, such as Ritalin.

Yet, there are many ways to conceptualize "disorders." We begin this article by suggesting that ADHD has become reified as a result of social and cultural factors. We present an alternative conceptualization based on a functional approach to assessment and treatment of ADHD. Based on this functional approach, we present a model for classifying performance problems that can be used to guide the selection of appropriate intervention techniques.

Maag, J. W., Vasa, S. F., Reid, R., & Torrey, G.K. (1995). Social and behavioral predictors of popular, rejected, and average children. *Educational and Psychological Measurement*, 55(2), 196-205.

The social status of a sample of fifth- and sixth-grade students was determined using the Coie, Dodge, and Coppotelli peer nomination method. Students were classified along three sociometric dimensions: 16 students were classified as Popular, 17 as Rejected, and 62 as Average out of an initial screening sample of 143 students. Teachers completed the Social Skills Rating System developed by Gresham and Elliot. A discriminant function analysis was employed to determine how accurately various dimensions of social behavior and demographic information (handicapping condition, gender, SES) classified students as Popular, Average, and Rejected. A combination of social behavior and demographic variables accurately classified students' social status. These findings underscore the importance of examining the predictive worth of variables contributing to categories of social status and the need for a multivariate approach.

Matthys, W., Maassen, G. H., Cuperus, J. M., & van Engeland, H. (2001). The assessment of the situational specificity of children's problem behaviour in peer-peer context. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 42(3), 413-420.

In both theory and research the general issue of the extent to which children's problem behaviour is generalised across situations, and to what extent it is situation specific, has been neglected. In the clinical assessment of disordered children, too, little attention has been paid to the specific situations in which these children display their inappropriate behaviour. In this study the Taxonomy of

Problematic Social Situations (TOPS) (Dodge, McClaskey, & Feldman, 1985) was employed. This is a questionnaire in which the child's teacher is asked to rate the likelihood of a child responding in an inappropriate manner in a specific situation. Characteristics of TOPS were investigated both in randomly selected normal school children and in boys with a conduct disorder. Four factors appeared to underlie the TOPS scores. From 652 randomly selected boys and girls from grades 1 to 6, these being: teachers' scores for the types of problem situation *Being Disadvantaged*, *Coping with Competition*, *Social Expectations of Peers*, and *Teacher Expectations*. Because of the high internal consistency of the four factors, TOPS was abbreviated to a TOPS-Short Form (18 instead of 44 items). The four-factor model was cross-validated by means of a second sample of 326 boys and girls. A model with only one general problem behaviour factor did not fit the data of both samples. When the four specific factors were added a satisfactory fit resulted. Moreover, it was found that in the first sample 52% of the variance was explained by the general factor, whereas 18% of the variance was explained by the four specific factors together. Thus, the extent to which problem behaviour is situation specific should not be disregarded. In all four types of problem situation, boys showed more inappropriate behaviour than girls. With increasing age, children were rated as being more competent in dealing with the problem situation *Being Disadvantaged*. Teachers rated the four types of problem situation as more problematic for boys with a conduct disorder (N = 42) than for normal control boys (N = 67). Conduct disordered boys also differed individually in the number of situational types that were problematic for them. With respect to clinical implications, the identification of the particular social context in which a conduct disordered child displays his or her inappropriate behaviour may help refine treatment goals: more adequate social functioning should be aimed at specifically in those situations that are problematic.

Millard, T., Wacker, D. P., Cooper, L. J., Harding, J., Drew, J., Plagmann, L. A., Asmus, J., McComas, J., & Jensen-Kovalan, P. (1993). A brief component analysis of potential treatment packages in an outpatient clinic setting with young children. *Journal of Applied Behavior Analysis, 26*(4), 475-476.

The purpose of this study was to develop outpatient clinic assessments that allowed us to assess multiple treatment variables, produce relatively quick effects, and isolate active treatment components. Assessment began by evaluating a treatment package consisting of antecedent and consequence variables followed by a component analysis to determine the separate effects of the treatment variables. Three examples of the findings are presented.

Nagin, D. S., & Tremblay, R. E. (2001). Parental and early childhood predictors of persistent physical aggression in boys from kindergarten to high school. *Archives of General Psychiatry, 58*, 389-394.

Background: In a prior study, we identified 4 groups following distinct developmental courses, or trajectories, of physical aggression in 1037 boys from 6 to 15 years of age in a high-risk population sample from Montréal, Québec. Two were trajectories of high aggression, a persistently high group and a high but declining group. The other 2 trajectories were a low group and a moderate declining group. This study identified early predictors of physical aggression trajectories from ages 6 to 15 years.

Methods: In this study, logistic regression analysis was used to identify parental and child characteristics that distinguished trajectory group membership.

Results: For boys displaying high hyperactivity and high opposition in kindergarten, the odds of membership in the 2 high aggression groups were increased by factors of 3.0 (95% confidence interval [CI], 2.0-4.3) and 2.7 (95% CI, 1.9-3.8), respectively, compared with boys without these risks. Counterpart odds ratios for the risk factors of mothers' teen-onset of parenthood and low educational attainment were 1.6 (95% CI, 1.1-2.2) and 1.8 (95% CI, 1.3-2.4), respectively. Only the maternal characteristics distinguished between the trajectory of persistently physical high aggression and the trajectory starting high but subsequently declining. For the 2 maternal risk factors combined, the odds

ratio of persisting in high level physical aggression was 9.4 (95% CI, 2.9-30.4).
Conclusions: Kindergarten boys displaying high levels of opposition and hyperactivity are at high risk of persistent physical aggression. However, among kindergarten boys who display high levels of physical aggression, only mothers' low educational level and teenage onset of childbearing distinguish those who persist in high levels of physical aggression.

Pineda, D., Ardila, A., & Rosselli, M. (1999). Neuropsychological and behavioral assessment of ADHD in seven- to twelve-year-old children: A discriminant analysis. *Journal of Learning Disabilities, 32*(2), 159-173.

We hypothesized that children with attention- deficit/hyperactivity disorder (ADHD) would underperform on neuropsychological tests that are sensitive to executive function impairments. We further proposed that a linear discriminant analysis using behavioral and neuropsychological variables as dependent variables would pinpoint the capability of behavioral questionnaires and neuropsychological tests to predict the correct classification of ADHD and control children. We designed a transversal study with 62 seven- to twelve-year-old children with ADHD and 62 Full Scale IQ-matched controls using two behavioral scales and 13 neuropsychological tests. Using analysis of variance and covariance with age and school achievement and multifactor analysis of variance, we found that behavioral variables established robust, statistically significant differences between groups ($p < .001$). Children with ADHD scored worse than controls on 31 out of 61 neuropsychological variables. Children with ADHD, however, obtained better scores that were statistically significant on WISC-R Comprehension and Picture completion. A linear discriminant analysis with nine behavioral variables correctly classified 100% of the participants in both groups. Another linear discriminant analysis using 10 neuropsychological variables correctly classified 85.48% of the participants in both groups. We propose a core battery of selected tests for assessing children with ADHD. The significance of cross-cultural analyses of different developmental disturbances is emphasized.

Pineda, D., Ardila, A., Rosselli, M., Arias, B. E., Henao, G. C., Gomez, L. F., Mejia, S. E., & Miranda, M. L. (1999). Prevalence of attention-deficit/hyperactivity disorder symptoms in 4-to 17-year-old children in the general population. *Journal of Abnormal Child Psychology*, 27(6), 455-462.

The purposes of this study were (a) to estimate the prevalence of Attention-Deficit/Hyperactivity Disorder (AD/HD) symptoms in the general preschool and school population; and (b) to analyze the influence of gender, age, and socioeconomic status (SES) variables on AD/HD symptoms. Out of the 80,000 preschool and schoolchildren living in Manizales, Colombia, a random sample of 540 children was selected. Two gender, three age (4- to 5- year olds, 6- to 11-year olds, and 12-to 17-year olds), and three SES (low, middle, and high) groups were used. The 18 DSM-IV symptoms corresponding to AD/HD Criterion A were assessed on a scale of 0(never) to 3 (almost always). All three demographic variables established statistically significant differences: AD/HD symptoms were more frequent in 6-to 11-year-old, low-SES, male participants. DSM-IV Criterion A for AD/HD was fulfilled by 19.8% of the boys and 12.3% of the girls. However, this difference was marginally significant only in the AD/HD Subtype I: Combined. It was concluded that demographic variables are significant correlates of the AD/HD diagnosis. The prevalence found in this study was higher than usually reported, even though only the symptomatic DSM-IV AD/HD criterion was analyzed. We failed to confirm the assumed AD/HD gender ratio.

Power, T. J., & Ikeda, M. J. (1996). The clinical utility of behavior rating scales: Comments on the diagnostic assessment of ADHD. *Journal of School Psychology*, 34(4), 379-385.

Responding to Reid and Maag's critique of behavior rating scales in assessing ADHD, published in a previous issue of the *Journal of School Psychology*, we provided specific recommendations for improving the accuracy of diagnostic decisions using rating scales and affirmed the importance of these procedures in the assessment of ADHD. Strategies for managing the error intrinsic to the use of diagnostic measures, specifically behavior rating scales, were outlined. A multiple stage procedure, involving one or more levels of screening prior to conducting a

diagnostic assessment, was recommended as a strategy to increase diagnostic accuracy in a time- and cost-efficient manner.

Reid, R., Epstein, M. H., Pastor, D. A., & Ryser, G. R. (2000). Strengths-based assessment differences across students with LD and EBD. *Remedial and Special Education, 21*(6), 346-355.

Current assessment techniques for children with learning disabilities (LD) and emotional and behavioral disorders (EBD) are typically focused on identifying deficits. In this study we investigated the use of an alternative strength-based perspective, using the Behavioral and Emotional Rating Scale (BERS). Results showed that the BERS discriminated among students with LD and EBD and those who were nondisabled. The use of the BERS improved significantly over chance in classifying students with EBD and nondisabled students, but not in classifying students with LD. This suggests that the BERS may be useful in the EBD assessment process. Implications for future research are discussed.

Reid, R., & Maag, J. W. (1994). How many fidgets in a pretty much: A critique of behavior rating scales for identifying students with ADHD. *Journal of School Psychology, 32*(4), 339-354.

The school psychologist's role and responsibilities for meeting the needs of students with Attention-Deficit Hyperactivity Disorder (ADHD) have been expanding in recent years. Students with this disorder present refractory problems that may involve the school psychologist in the assessment and diagnosis of ADHD. Rating scales commonly are used, sometimes in conjunction with other techniques, for assessing and diagnosing ADHD. They often are presented as an objective way to quantify the severity of a child's behavior in comparison with a normative standard. Because rating scales have become such an integral component in the identification of children with ADHD, school psychologists should understand the limitations associated with this methodology. In this article we first describe behavior rating scales and difficulties in the use of cutoff scores to identify students as ADHD. Second, we describe how problems with interobserver agreement hamper the validity of rating scales and the subsequent

conclusions that can be drawn about students' behavior. Finally, we present recommendations for obtaining more reliable and valid information from rating scales.

Reid, R., Maag, J. W., Vasa, S. F., & Wright, G. (1994). Who are the children with attention-deficit hyperactivity disorder? A school-based survey. *Journal of Special Education, 28*(2), 117-137.

Attention Deficit-Hyperactivity Disorder (ADHD) is one of the most frequently diagnosed and thoroughly researched disorders of childhood; however, little is known about ADHD in the school setting. We examined demographic data, disability categories, placement, academic achievement, and educational treatment of children clinically diagnosed as having ADHD among a group of 14,229 students in a public school district. Of 136 students with ADHD, over half ($n = 77$) were receiving special education services: Forty were identified as behaviorally disordered, 22 as learning disabled, 7 as mildly mentally retarded, 1 as other health impaired, and 1 as orthopedically handicapped. The most common special education placement for students with ADHD was the general education classroom plus resource support ($n = 50$). Mathematics and reading achievement scores varied greatly. Over 90% of the students with ADHD were taking medication. Behavior modification, consultation, one-to-one instruction, and modified assignment format were used significantly more often with students with ADHD who were receiving special education services than students with ADHD who were not receiving special education services. Implications for research and practice are presented.

Robertson, L. M., Harding, M. S., & Morrison, G. M. (1998). A comparison of risk and resilience indicators among Latino/a students: Differences between students identified as at-risk, learning disabled, speech impaired and not at-risk. *Education and Treatment of Children, 21*(3), 333-53.

Students who were at-risk for school failure, experiencing learning or speech disabilities and students considered non-risk were compared using measures of student self-perceptions and teacher behavioral and academic perceptions. Risk

and resiliency concepts such as academic and social self-concept, problem behaviors, social support, cooperation, school bonding and social problem solving were the focus of comparison. Gender differences were also examined. At-risk students showed a profile of low grades, fewer study and social skills and more problem behaviors, compared to their peers. The students in this group did not rate themselves differently from peers on these constructs. Students with learning disabilities were rated by teachers as having behavioral and academic difficulties but rated themselves as having elevated social self-concept, despite low levels of social support. Students eligible for speech and language services showed a profile of school alienation with low school bonding and poor peer self-concept. Implications for utilizing resiliency constructs for the early identification of behavior problems in students as well as the need for school-linked mental health programming to address emotional and behavioral needs of youths are discussed.

Sasso, G. M., Conroy, M. A., Stichter, J. P., & Fox, J. J. (2001). Slowing down the bandwagon: The misapplication of functional assessment for students with emotional or behavioral disorders. *Behavioral Disorders, 26*(4), 282-96.

Despite the tremendous attention being given to functional assessment and legal mandates regarding its use, little is known empirically about this process for students with emotional or behavioral disorders (E/BD). This article discusses the promise and practice of functional assessment, provides a critical review of the existing experimental literature in the area of E/BD, and presents a research agenda that will lead to more informed decisions regarding the use of functional assessment in the schools.

Willcutt, E. G., Hartung, C. M., Lahey, B. B., Loney, J., & Pelham, W. E. (1999). Utility of behavior ratings by examiners during assessments of preschool children with attention-deficit/hyperactivity disorder. *Journal of Abnormal Child Psychology, 27*(6), 463-472.

This study examines the clinical utility of behavior ratings made by nonclinician examiners during assessments of preschool children with Attention-Deficit/Hyperactivity Disorder (AD/HD). Matched samples of children with (n =

127) and without (n = 125) AD/HD were utilized to test the internal, convergent, concurrent, and incremental validity of ratings completed by examiners on the Hillside Behavior Rating Scale (HBRS). Results indicated that HBRS ratings were internally consistent, possessed sufficient interrater reliability, and were significantly associated with parent and teacher reports of AD/HD when controlling for age, gender, intelligence, and symptoms of other psychopathology. HBRS ratings also were significantly associated with other measures of functioning, and provided a significant increment in the prediction of impairment over parent and teacher report alone. These findings suggest that behavioral ratings during testing provide a unique source of clinical information that may be useful as a supplement to parent and teacher reports.

Interventions

Beare, P. L. (1985). Difficulties and alternatives in emotional/behavioral disorders. *B. C. Journal of Special Education*, 9(1), 1-10.

Special educators encounter a number of difficulties in providing services for emotional/behavioral disordered (E/BD) students. These difficulties fall into the categories of client specificity, goals and philosophies of programs and efficacy of service. Specific problems include an underidentification of E/BD students, a lack of uniform philosophy or set of goals for such E/BD services. The ecological philosophy of "goodness of fit" is seen as an alternative which might start to alleviate some of the problems. Focusing identification and programming only on behavior which relate to a student's ability to function in their environment might give a uniform perspective for service and gives a specific goal for special education. Other alternative ways of handling the above problems are discussed.

Biederman, J., & Spencer, T. (2000). Non-stimulant treatments for ADHD. *European Child & Adolescent Psychiatry*, 9, 51-59.

We reviewed the literature of medication trials in ADHD to evaluate the scope of the available non-stimulant treatments. A variety of compounds with a common noradrenergic/ dopaminergic activity have shown documented anti-ADHD activity. There is a substantial body of literature documenting the efficacy of tricyclic antidepressants on ADHD in over 1,000 subjects. In addition, the atypical antidepressant bupropion and the novel noradrenergic specific antidepressant tomoxetine have also been documented to be effective in the treatment of ADHD in controlled clinical trials. Despite wide use, the scientific base supporting the efficacy of alpha-2, noradrenergic agonists continues to be limited. Several lines of evidence provide preliminary support for the potential benefits of cholinergic cognitive enhancing drugs in such as anticholinesterase inhibitors (tacrine, donepezil) as well as novel nicotinic analogues (ABT-418). Despite these promising results, more research is needed on alternative pharmacologic treatments for the treatment of ADHD.

Coleman, M., & Vaughn, S. (2000). Reading interventions for students with emotional/behavioral disorders. *Behavioral Disorders, 25*(2), 93-104.

Although children with emotional or behavioral disorders (E/BD) demonstrate significant difficulties in reading, little research has addressed the efficacy of reading interventions with this population. This study began with a review of literature published since 1975 regarding reading interventions with elementary school students with E/BD. Because only eight publications were found that met their selection criteria, the authors conducted a focus group with teachers of students with E/BD. Among the themes voiced by teachers were the emotional variability of their students, fear of failure and trust issues, and the ensuing challenges of motivating students. Both the literature review and the focus group indicated that cross-age tutoring and direct or explicit instruction may hold some promise for students with E/BD. However, neither the review nor the focus group revealed specific instructional procedures that are helpful with these students. The lack of knowledge base in this area is particularly disturbing given the current priority placed on early reading, the push toward inclusion, and the requirement of access to the general education curriculum for students with E/BD.

Drege, P., & Beare, P. L. (1991). The effect of a token reinforcement system with a time-out backup consequence on the classroom behavior of E/BD students. *B. C. Journal of Special Education, 15*(1), 39-46.

This study used a multiple baseline across students research design to determine the effectiveness of a token economy system with a time-out backup consequence in reducing off-task behavior and disruptive behavior by three Emotional/Behavioral Disordered students. The baseline and intervention occurred in a highly structured, self-contained classroom. The token economy involved rewarding students with points for appropriate behavior and a response cost of the loss of points for inappropriate behavior. The points were exchangeable for backup tangible rewards. Non-exclusionary time-out was implemented upon the emission of specified disruptive behavior. Results showed a strong, functional relationship between the intervention system and

improvement in the students behavior.

Note: The sample consisted of only three students [DS].

Epstein, M. H., Quinn, K., Cumblad, C., & Holderness, D. (1996). Needs assessment of community-based services for children and youth with emotional or behavioral disorders and their families. Part 1. A conceptual model. *Journal of Mental Health Administration*, 23(4), 418-431.

Communities throughout the nation are attempting to develop comprehensive systems of community-based interagency care for children and youth with emotional or behavioral disorders and their families. Needs assessment has been identified as a key component of these initiatives. A needs assessment provides system planners with the data needed to make informed decisions with regard to improving the current system of care. In this first of a two-article series, an overview is presented of a model needs assessment designed for implementation by an interagency coalition interested in developing a comprehensive system of community-based services for children and youth with emotional or behavioral disorders and their families. Major components of the model include foundations for needs assessment, data collection, and data utilization.

Ervin, R. A., Kern, L., Clarke, S., DuPaul, G. J., Dunlap, G., & Friman, P. C. (2000). Evaluating assessment-based intervention strategies for students with ADHD and comorbid disorders within the natural classroom context. *Behavioral Disorders*, 25(4), 344-58.

The authors provide three case examples of the evaluation of assessment-based intervention strategies within the natural classroom context for students with attention deficit hyperactivity disorder (ADHD) and comorbid disorders. For each of the participants, several hypotheses were generated concerning potential environmental correlates of undesirable behavior based on information obtained during student and teacher interviews as well as descriptive observations. The utility of these assessment-based, nonintrusive intervention strategies was evaluated within the natural context and ongoing routine of the classroom using an alternating-treatments design. For each participant, results demonstrated that

assessment-based environmental modifications can decrease problematic classroom behaviors. In addition, results of the hypothesis testing suggested feasible and effective classroom intervention strategies.

Farmer, T. W., Quinn, M. M., Hussey, W., & Holahan, T. (2001). The development of disruptive behavioral disorders and correlated constraints: Implications for intervention. *Behavioral Disorders, 26*(2), 117-30.

A systems perspective of the development of disruptive behavioral disorders is presented and discussed with an emphasis on correlated constraints. The concept of correlated constraints suggests that behavior development involves the interconnected contributions of multiple factors working together as a system. Implications of this perspective are considered in relation to prevention and treatment, social skills interventions, and service delivery for youths with and at risk of developing emotional or behavioral disorders.

Forness, S. R., Kavale, K. A., & Crenshaw, T. M. (1999). Stimulant medication revisited: Effective treatment of children with ADHD. *Reclaiming Children and Youth: Journal of Emotional and Behavioral Problems, 7*(4), 230-3.

Many recent publications on students with attention-deficit/hyperactivity disorder (ADHD) have contained cases where families cope with ADHD without going the "medication route." In order to strike a balance, the authors of this article summarize recent findings from a meta-analysis on the use and effectiveness of medication for these children. The authors are concerned that teachers and parents may not fully appreciate the fact that stimulants are still a critical part of the overall treatment for children with ADHD; they believe that psychosocial interventions can be complemented with interventions using drugs.

Forness, S. R., Kavale, K. A., Sweeney, D. P., & Crenshaw, T. M. (1999). The future of research and practice in behavioral disorders: Psychopharmacology and its school implications. *Behavioral Disorders, 24*(4), 305-318.

Research and practice in special education have only begun to incorporate interventions from other disciplines. Child and adolescent psychopharmacology

recently has begun to assert itself as a primary intervention in treatment of children with disruptive behavioral disorders, such as attention deficit hyperactivity disorder. Recent findings in this area will be reviewed along with a brief review of medications used for children with mood or schizophrenic disorders. The article concludes with a discussion of collaborative practice with physicians and families in multimodal treatment of children with emotional and behavioral disorders. The authors argue that effective special education practice demands such collaboration.

Forness, S. R., Keogh, B. K., MacMillan, D. L., Kavale, K. A., & Gresham, F. M. (1998). What is so special about IQ? The limited explanatory power of cognitive abilities in the real world of special education. *Remedial and Special Education, 19*(6), 315-322.

In a recent article in the *American Psychologist* Detterman and Thompson (1997) not only claimed that there is nothing special about special education, but also contended that a primary emphasis on cognitive abilities is needed in order to improve the effectiveness of instruction of children with disabilities. In this article we analyze their criticisms and respond to their examples of "failed" special education. The effectiveness of current instructional techniques for children with disabilities is contrasted with cognitive approaches. The historical basis of special education is also examined. Assumptions about the actual significance of intelligence testing and cognitive approaches to instruction are questioned in regard to children in special education who present with a wide range of physical, social, emotional, and behavioral characteristics.

Harding, J. W., Wacker, D. P., Berg, W. K., Barretto, A., & Rankin, B. (2002). Assessment and treatment of severe behavior problems using choice-making procedures. *Education and Treatment of Children, 25*(1), 26-46.

Choice-making procedures were used to identify response-reinforcer relations during assessment and treatment phases with two children (ages 4-6) with pervasive development disorders who displayed severe behavioral problems. Results were used to develop preliminary treatment packages in which access to positive reinforcement was contingent on compliance. Both children showed

reductions in problem behavior.

Note: Size of sample is very small (n=2) [DS].

Harding, J. W., Wacker, D. P., Berg, W. K., Cooper, L. J., Asmus, J., Mlela, K., & Muller, J. (1999). An analysis of choice making in the assessment of young children with severe behavior problems. *Journal of Applied Behavior Analysis*, 32(1), 63-82.

We examined how positive and negative reinforcement influenced time allocation, occurrence of problem behavior, and completion of parent instructions during a concurrent choice assessment with 2 preschool-aged children who displayed severe problem behavior in their homes. The children were given a series of concurrent choice options that varied availability of parent attention, access to preferred toys, and presentation of parent instructions. The results showed that both children consistently allocated their time to choice areas that included parent attention when no instructions were presented. When parent attention choice areas included the presentation of instructions, the children displayed differential patterns of behavior that appeared to be influenced by the presence or absence of preferred toys. The results extended previous applications of reinforcer assessment procedures by analyzing the relative influence of both positive and negative reinforcement within a concurrent-operants paradigm.

Heckaman, K., Conroy, M., Fox, J., & Chait, A. (2000). Functional assessment-based intervention research on students with or at risk for emotional and behavioral disorders in school settings. *Behavioral Disorders*, 25(3), 196-210.

This article examines the research literature on functional assessment-based interventions for students with or at risk for emotional and behavioral disorders (E/BD) who demonstrate problem behaviors. We sought to identify any trends in the design and application of functional assessment-based interventions, with an emphasis on the types of interventions employed. We also examined the frequency with which researchers are collecting and reporting measures of procedural integrity, generalization and maintenance, and social validity. Although no specific trends emerged in the selection or implementation of interventions, several key issues in the design of research on functional

assessment-based interventions with students with or at risk for E/BD are identified and discussed.

Kavale, K. A., Mathur, S. R., Forness, S. R., Quinn, M. M., & Rutherford, R. B. (2000). Right reason in the integration of group and single-subject research in behavioral disorders. *Behavioral Disorders, 25*(2), 142-157.

In this discussion of quantitative research synthesis (meta-analysis), past criticisms of meta-analysis are reviewed along with the ways in which they have been addressed. The problems associated with synthesizing single-subject research are discussed, particularly the difficulties in obtaining a metric equivalent to the effect size calculated for group-design research. After analyzing recommended approaches, the authors endorse the percentage-of-nonoverlapping-data metric. Their earlier single-subject synthesis showing limited efficacy for social skills instruction is then reviewed. The findings are discussed in relation to the nature of single-subject research, the proper role of research integration, and the influence of subjectivity in interpreting research findings. Finally, possible reasons for disappointing findings regarding the effectiveness of social skills instruction are explored. The authors conclude that, until expressed concerns are remedied, it is neither incorrect nor illogical to question the efficacy of social skills instruction.

Kennedy, C. H., Long, T., Jolivette, K., Cox, J., Tang, J. C., & Thompson, T. (2001). Facilitating general education participation for students with behavior problems by linking positive behavior supports and person-centered planning. *Journal of Emotional and Behavioral Disorders, 9*(3), 161-71.

We studied the effects of combining positive behavior supports and person-centered planning on problem behavior and general education participation. Three students—one receiving special education services and two who were at risk for more restrictive placements—participated in a school team-based assessment and intervention process. Assessments focused on students' strengths, interests, and support needs, along with possible social and biological causes of problem behavior. Schoolwide interventions, based on the expanded functional assessment

approach, were implemented in teams composed of general educators, special educators, and school administrators. Results indicated that two of the three students increased or maintained high levels of general education participation and showed decreases in problem behavior. For a third student, poor implementation of the support plan was associated with increases in problem behavior and decreases in general education participation. Interrelations between operant function, support plan implementation fidelity, and student success are highlighted, along with a discussion of linking positive behavior supports and person-centered planning for students with and without disabilities.

Kern, L., Bambara, L., & Focht, J. (2002). Class-wide curricular modification to improve the behavior of students with emotional or behavioral disorders. *Behavioral Disorders, 27*(4), 317-26.

We examined the effects of class-wide curricular modification on the engagement and challenging behaviors of students enrolled in a self-contained science class. Participants were six students between the ages of 13 and 14, all with labels of severe emotional disturbance in addition to a variety of other diagnoses. Class-wide curricular modifications consisted of providing opportunities for choice making and ensuring that activities were of high interest to students. Findings showed that the curricular modifications resulted in increased levels of engagement and decreased levels of problem behaviors. Results are discussed in the context of system-level behavior support within the school setting.

Kern, L., Choutka, C. M., & Sokol, N. G. (2002). Assessment-based antecedent interventions used in natural settings to reduce challenging behavior: An analysis of the literature. *Education and Treatment of Children, 25*(1), 113-30.

Intervention for challenging behavior has long been characterized by consequence approaches, which often meant the application of aversive procedures. However, in recent years the development and refinement of functional assessment has brought about alternative approaches to behavior management. Antecedent interventions represent one alternative. Because antecedent intervention approaches are relatively new, a number of questions remain regarding utility and

applicability. The current paper reviews empirical research describing assessment-based antecedent interventions implemented in natural settings. Descriptive information is provided along a number of dimensions pertaining to participant characteristics, assessment utilized, and intervention attributes.

Kern, L., Delaney, B., Clarke, S., Dunlap, G., & Childs, K. (2001). Improving the classroom behavior of students with emotional and behavioral disorders using individualized curricular modifications. *Journal of Emotional and Behavioral Disorders*, 9(4), 239-247.

In this article, we describe analyses of assessment-based curricular modifications designed to improve the classroom behavior of elementary school students with emotional and behavioral disorders. Functional assessments were conducted to identify instructional and curricular variables associated with undesirable behavior during problematic academic assignments. The assessment data led to individualized modifications of assignment features. Experimental analyses verified that the modifications resulted in reduced problem behavior and increased task engagement for each of the participants. The results are related to previous research on functional assessment, positive behavioral support, and the new requirements for behavioral interventions under the Individuals with Disabilities Education Act Amendments of 1997.

Levendoski, L. S., & Cartledge, G. (2000). Self-monitoring for elementary school children with serious emotional disturbances: Classroom applications for increased academic responding. *Behavioral Disorders*, 25(3), 211-24.

An unobtrusive self-monitoring procedure was used to teach four elementary school students with serious emotional disturbances (SED) to monitor their behavior while working independently on newly taught materials. A withdrawal design was used to assess two dependent variables: percentage of on-task behavior during math seatwork and percentage of math problems completed by each student. A modest positive relationship between self-monitoring and the targeted behaviors was found. Classroom implications are discussed.

Lloyd, J. W., Forness, S. R., & Kavale, K. A. (1998). Some methods are more effective than others. *Intervention in School and Clinic*, 33(4), 195-200.

Many different methods have been developed to remediate problems of students with disabilities. Research studies evaluating the relative effectiveness of such practices can be overwhelming to educators because of the sheer number of studies (hundreds) as well as the conflicting results produced by some investigations. In this article, we use meta-analyses to make sense of this research, offering general guidelines for best practice in special education.

Maag, J. W., & Howell, K. W. (1992). Special education and the exclusion of youth with social maladjustments. *Remedial and Special Education*, 13(1), 47-54, 59.

The authors address the current controversy regarding the exclusion of youths labeled socially maladjusted from special education services under the auspices of the seriously emotionally disturbed (SED) category. Both proponents and opponents of serving these students base their arguments largely on the analysis of specific child characteristics that can differentiate between social maladjustment and serious emotional disturbance. Subscribing to this child-centered perspective limits the discussion and potential for its resolution. Rather than attempting to refute or support arguments presented by both sides in this debate, the authors have chosen to reconceptualize the issue from a cultural-organizational perspective. From this view-point, calls to exclude youths who are socially maladjusted result from a society that has little tolerance for "deviant" behavior, and from schools that must maintain their legitimacy and popular support. Distinctions are made among participants in what has become a characteristic special education conflict.

Maag, J. W., & Katsiyannis, A. (1996). Counseling as a related service for students with emotional or behavioral disorders: Issues and recommendations. *Behavioral Disorders, 21*(4), 293-305.

The related services component of the Individuals with Disabilities Act (IDEA) has been one of the most difficult requirements in providing a free appropriate public education (FAPE) for students with disabilities, and it continues to be a persistent challenge with considerable legal precedent. A related service that is receiving increasing attention for students with emotional or behavioral disorders (EBD) is counseling. Counseling services are defined as services provided by qualified social workers, psychologists, guidance counselors, or other qualified personnel. The purposes of this article are to examine the controversial provision of counseling as a related service and provide recommendations for improved practice. To accomplish these goals, we will first delineate the type of service options and personnel who may provide counseling under the related services clause of IDEA. Second, we will examine the legal mandates of IDEA involving counseling as a related service. Finally, we will provide recommendations to schools for providing counseling services to students with EBD being served under IDEA.

Maag, J. W., & Katsiyannis, A. (1998). Challenges facing successful transition for youths with E/BD. *Behavioral Disorders, 23*(4), 209-221.

In 1990, the Individuals with Disabilities Education Act added a new mandate that the individualized education program for all students age 16 and older must include a statement of the transition services needed to prepare them for postschool activities. Providing transition services to youths with emotional or behavioral disorders (E/BD) has been particularly difficult because their problems are often intractable and, consequently, result in poor outcomes such as dropping out of school, unemployment, incarceration, and psychopathology. This article describes challenges involved in ensuring successful transition for youths with E/BD and makes recommendations for improving transition services.

Mathur, S. R., Kavale, K. A., Quinn, M. M., Forness, S. R., & Rutherford, R. B. (1998). Social skills interventions with students with emotional and behavioral problems: A quantitative synthesis of single-subject research. *Behavioral Disorders, 23*(3), 193-201.

Sixty-four single-subject studies examining the effectiveness of social skills interventions with students with emotional or behavioral problems were included in this synthesis. The results of quantitative synthesis procedures using percentage of nonoverlapping data suggest that social skills interventions have limited empirical support for their overall effectiveness. Implications for future social skills research and quantitative analysis methodology are discussed.

McCluskey, K. W., O'Hagan, S. C., Baker, P. A., & Richard, S. (2000). Nurturing the talents of aboriginal Canadian youth. *TalentEd, 18*(4), 1-9.

Northern Lights, a project designed to provide support to at-risk Aboriginal youth, ran in three Manitoba school divisions from October, 1996 through May, 1999. The participants, despite possessing identified talents in specific areas, had dropped out or were about to be removed from school because of academic, attendance, and/or behavioural issues. Support, in the form of in-class sessions and mentoring experiences with community partners, was provided for two months for three separate groups in each of the participating divisions. Many of the Aboriginal young people (i.e., 38/58 or 65.52%) responded by returning to school, graduating, entering post-secondary programs, or finding employment.

Moore, R. J., Cartledge, G., & Heckaman, K. (1995). The effects of social skill instruction and self-monitoring on game-related behaviors of adolescents with emotional or behavioral disorders. *Behavioral Disorders, 20*(4), 253-266.

Three ninth-grade male students with emotional or behavioral disorders were taught the game-related social skills of appropriate peer reactions, appropriate reactions to losing and appropriate reactions to winning. A skills-training model involving social modeling, behavioral rehearsal, and behavior transfer was used to teach the skills. Self-monitoring was employed to help the new skills persist over time and transfer to the gym setting. A multiple-baseline design was used to evaluate the effectiveness of the training for each student in both the classroom

and the gym. The results indicated that students improved in their game-related social skills. Greater overall improvements were found in the classroom.

Nixon, R. D. V. (2001). Changes in hyperactivity and temperament in behaviourally disturbed preschoolers after parent-child interaction therapy (PCIT). *Behaviour Change*, 18(3), 168-176.

Changes in hyperactivity and temperament in preschool-aged children who underwent a behavioural management program with their mothers were examined. Families of 34 behaviourally disturbed preschool-aged children (aged 3-5) were randomly allocated to either parent-child interaction therapy (PCIT; Eyberg, 1988) or a waiting-list control group (WL). A group of 21 nondisturbed preschoolers was recruited as a social validation comparison condition (SV). Diagnostic status was assessed using a structured clinical interview for DSM-IV disruptive behaviour disorders, with measures of behaviour and temperament obtained via parent report. At posttreatment, PCIT preschoolers were reported by their mothers to have reduced hyperactivity and more flexible temperament, and were less likely to meet criteria for ADHD than the WL group. By 6-month follow-up, children who had received PCIT were comparable to the SV group on ratings of oppositional behaviour and hyperactivity. The finding that a behavioural intervention may influence stable child characteristics is discussed.

Phelps, L., & McClintock, K. (1994). Papa and peers: A biosocial approach to conduct disorder. *Journal of Psychopathology and Behavioral Assessment*, 16(1), 53-67.

The authors seek to advance the profession's understanding of conduct disorders by illustrating that (a) inappropriate research design frequently results in faulty conclusions regarding etiology, (b) a biosocial approach is most helpful in identifying key interactive variables that place children/adolescents at risk, and (c) future treatment efficacy studies should focus on mitigating these primary risk factors as well as investigating separate intervention models for the two qualitatively distinct categories of delinquents (i.e., chronic vs. transient participation).

Presley, J. A., & Hughes, C. (2000). Peers as teachers of anger management to high school students with behavioral disorders. *Behavioral Disorders, 25*(2), 114-130.

We investigated the use of a peer-delivered social skills instructional package to teach four high school students with behavioral disorders to express anger appropriately. In contrast to previous studies, instruction was presented individually to the students by their general education peers. The instructional package, which combined peer instruction, self-instruction, and a traditional anger control program, was effective in improving the way these adolescents expressed anger in role-play situations with general education peers. In addition, generalization data indicated that some of the students decreased the rate at which they responded inappropriately to naturally occurring anger-provoking situations at school outside the instructional setting. Implications for future research and practice are discussed.

Quinn, K., Epstein, M. H., Cumblad, C., & Holderness, D. (1996). Needs assessment of community-based services for children and youth with emotional or behavioral disorders and their families. Part 2. Implementation in a local system of care. *Journal of Mental Health Administration, 23*(4), 432-446.

In a previous article, rationale and procedures were presented for a model needs assessment of community-based services for children and youth with emotional and behavioral disorders and their families. In this article, the authors describe initial needs assessment planning activities, examine the implementation of the proposed model, provide a general overview of the results, and review how the community that conducted the assessment used the information to identify system development priorities and action plans. Quantitative data are provided on the population demographics and parent and direct service provider surveys. Qualitative data are presented on the semistructured interviews with key stakeholders and direct service providers.

Quinn, M. M., Kavale, K. A., Mathur, S. R., Rutherford, R. B., & Forness, S. R. (1999). A meta-analysis of social skill interventions for students with emotional or behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 7(1), 54-64.

Many programs designed for children and youth with emotional or behavioral disorders (EBD) include a social skill training component. Using quantitative methods of meta-analysis, the findings from 35 studies investigating the effects of social skill interventions for students with EBD were synthesized. The pooled mean effect size (ES) was 0.199, from which the average student with EBD would be expected to gain a modest eight percentile ranks on outcome measures after participating in a social skill training program. Studies were further grouped and analyzed according to different variables (e.g., similarities of the intervention, participants, and assessment procedures). Slightly greater ESs were found for interventions that focused on reaching and measuring specific social skills (e.g., cooperating, or social problem solving) compared to more global interventions. Several pertinent issues for reviewing the results of this research synthesis are addressed.

Sadao, K. C., & Walker, W. L. (2002). Emancipation for youth with behavior disorders and emotional disturbance: A study of student perceptions. *Preventing School Failure*, 46(3), 119-25.

This article examines the emancipation program of a residential/day school for students with emotional and behavioral disorders. The focus of the research is on participants' satisfaction with the program, readiness to exit the program, and future goals. Findings from interviews with the participants raise doubt about the quality of their preparation. Although participant perceptions of the process of emancipation were fairly positive, concern with attainability for future goals should be addressed by further research. There appears to be a problem in balancing healing the student participant (self-esteem) with promoting self-awareness and recognition of one's capabilities and limitations. Comprehensive transition planning is explored as a way to increase the success of the emancipation process.

Scott, T. M., & Nelson, C. M. (1998). Confusion and failure in facilitating generalized social responding in the school setting: Sometimes $2+2=5$. *Behavioral Disorders*, 23(4), 264-275.

Although social skills instruction is widely cited as an effective intervention for a variety of problem behaviors, research does not support the generalization of its effects across settings. Practices that have been sufficient to achieve generalization in academic instruction have been insufficient in achieving similar outcomes for social instruction. Historical confusion and failure in facilitating generalized behaviors can be attributed to the complexity of the social environment. Due to the complexity of this problem, those who provide social skills instruction must adapt best practices for instruction and generalization. This article (a) analyzes generalization failures; (b) outlines some critical differences between instruction in social and academic skill areas; and (c) suggests the depth of analysis, instruction, and facilitation that will be required to achieve generalization of social skills.

Serna, L., Lamros, K., Nielsen, E., & Forness, S. R. (2002). Head start children at risk for emotional or behavioral disorders: Behavior profiles and clinical implications of a primary prevention program. *Behavioral Disorders*, 27(2), 137-41.

This article examines the utility of the Early Screening Project (ESP, Walker, Severson, & Feil, 1995) for early detection and outcome of Head Start children at risk for emotional and behavioral disorders (E/BD) in a classroom-wide universal mental health intervention over a 12-week period. Eight children identified as being at high risk for E/BD in the experimental classroom prior to intervention either significantly improved or maintained their preintervention functioning on ESP measures. In this group, 2 children were no longer considered in the at-risk category and the remaining 6 did not reach clinical standards on any new measures. Only 1 child was identified from control classrooms, and that child remained at high risk for the development of E/BD at posttesting, while an additional 3 students from control classrooms evidenced behavioral criteria that placed them at high risk for E/BD at posttest assessment.

Serna, L., Nielsen, E., Lambros, K., & Forness, S. (2000). Primary prevention with children at risk for emotional or behavioral disorders: Data on a universal intervention for head start classrooms. *Behavioral Disorders, 26*(1), 70-84.

A classroom-wide universal intervention on direction following, sharing, and problem solving was embedded in a story and song format for Head Start children. The intervention covered a 12-week period with two 3-hour sessions in each experimental classroom weekly. Pretest and posttest data were collected on 53 children in three experimental classrooms and 31 children in two control classrooms. Results suggest significant improvements for the experimental group on adaptive behavior, social interaction, and attentional measures. Overall, children in the experimental group who were at risk for development of emotional or behavioral disorders prior to intervention either significantly improved or maintained their preintervention functioning. Implications of early detection and primary prevention efforts within a Head Start context are discussed.

Stage, S. A. (1997). A preliminary investigation of the relationship between in school suspension and the disruptive classroom behavior of students with behavioral disorders. *Behavioral Disorders, 23*(1), 57-76.

This study examined the effects of three types of in-school suspension programs on disruptive classroom behavior as well as the impact of classroom management techniques on assignment to in-school suspension. The participants were 36 students (ages 12-17) with behavioral or emotional disorders who were enrolled in a residential school for adolescents. There were four intervention phases. In the Timeout(1) intervention, students (n = 17) served a 15-minute timeout. In the Timeout Plus Academic Task intervention, students (n = 19) served a timeout and completed an academic assignment. In the Problem-Solving intervention, students (n = 10) completed a problem-solving task pertaining to their in-school suspension assignment. Analyses of variance (ANOVAs) revealed no reliable differences in the in-school suspension rate or disruptive classroom behavior across the four phases. However, teachers' disapproval of student off-task behavior predicted assignment to in-school suspension. These results are

discussed in terms of classroom management and teachers' use of aversive stimuli.

Stage, S. A., & Quiroz, D. R. (1997). A meta-analysis of interventions to decrease disruptive classroom behavior in public education settings. *School Psychology Review*, 26(3), 333-368.

We conducted a meta-analysis of 99 studies that used interventions to decrease disruptive classroom behavior in public education settings. Due to the predominance of single-subject studies, we used the Interrupted Time Series Autocorrelation program (ITSACORR; Crosbie, 1993) which yielded a t statistic that was transformed into an effect size. A total of 223 effect sizes yielded a mean effect size of -.78, indicating that, on average, 78% of the treated students reduced their disruptive behavior compared to nontreated students. We found that studies using teacher rating scales were less likely to evidence reductions in disruptive classroom behaviors compared to studies using behavioral observation methodologies. We also found that students treated in self-contained classrooms were more likely to evidence a reduction in disruptive classroom behavior compared to students treated in regular classroom settings. With the exclusion of studies using teacher rating scales, comparison of treatment interventions showed no statistically reliable differences due to the large variability in the relative effectiveness for students treated. Overall, results indicate that interventions to reduce disruptive classroom behavior yield comparable results to other meta-analytic studies investigating the effectiveness of psychotherapy for children and adolescents. This indicates that there are efficacious treatments used in public education settings to decrease disruptive classroom behaviors.

Vaughn, S., Levy, S., Coleman, M., & Bos, C. S. (2002). Reading instruction for students with LD and EBD: A synthesis of observation studies. *Journal of Special Education*, 36(1), 2-13.

This article synthesizes previous observation studies conducted during reading with students with learning disabilities (LD) and emotional/behavioral disorders (EBD). A systematic search of all research conducted between 1975 and 2000

yielded a total of 16 studies (11 independent samples) that met all preestablished criteria. These studies yielded several findings: (a) There was substantial time allocated for reading instruction, though the time varied based on whether students were in special education or general education or both; (b) students were provided more individual and group instruction in special education; (c) the quality of reading instruction was low, overall, with excessive time allocated to waiting and limited time allocated to actual reading of texts and (d) independent seatwork and worksheets consumed large amounts of time allocated for reading. Only a small percentage of students with EBD were participants in the studies. The findings should be interpreted as generalizable primarily for students with learning disabilities. Overall concern about the quality of reading instruction was discussed, as well as future implications for professional development for teachers and instruction for students.

Walther, M., & Beare, P. L. (1991). The effect of videotape feedback on the on-task behavior of a student with emotional/behavioral disorders. *Education and Treatment of Children, 14*(1), 53-60.

This study examined the effect of a videotape feedback intervention on the on-task behavior rate of a fourth grade male in a self-contained class for students with emotional/behavioral disorders. An ABAB single subject design was used to evaluate the effects of the intervention on the student's percentage of time on-task. The independent variable consisted of the student daily viewing of videotapes of himself engaged at in-seat assignments combined with self-recording and a teacher questioning procedure. The results revealed an increase in on-task percentage during intervention, a sharp drop during return to baseline, and an increase during reintervention. The results suggest a functional relationship between the videotape procedure and the student's on-task behavior rate.

Rural

Beare, P. (1981). Mainstreaming approach for behaviorally disordered secondary students in a rural school district. *Behavioral Disorders*, 6(4), 209-18.

This study assesses the efficacy of a systematic program of intervention designed to facilitate a goodness of fit between behavior problem secondary level students and a particular rural school system. The research involved 38 identified behavior problem target students attending Middleville R-III school district in Middleville, Missouri during the 1977-1978 school year. Two control groups were utilized, one group consisted of 224 non-target students attending Middleville junior-senior high school, the other 225 students attending a neighboring community high school. The intervention program involved teacher inservice, the implementation of a teacher staffed advocacy program and the founding of a crisis teacher program. Pre- and post-evaluation of students' school morale showed no significant changes in Target group attitude toward school. Evaluation of behavioral reaction toward school as measured by dropout rate and attendance did show definite improvement. Implications of the study are that teachers may be effective advocates for problem students when assisted by trained personnel. A pressing need for more environmentally based intervention component outside school was strongly indicated.

Beare, P., Wasson, B., & Wasson, J. (1986). Categorical services for behavior disordered students in rural areas: Is there justification for change? *B. C. Journal of Special Education*, 10(2), 131-8.

Categorically labeled junior high level behaviorally disordered (BD), learning disabled (LD), and educably mentally handicapped (EMH) students living in a rural area of the upper midwest were compared on three measures in order to examine for significant differences on certain variables. The purpose of the comparison was to examine the viability of suggestions to improve the degree and type of service offered rural area BD and other mildly handicapped students. Except for the presence of significant aggressive behavior by BD students and

withdrawn behavior by LD students, no major differences were found between the BD and LD students. The EMH students scored significantly lower in cognitive ability related variables. The results were seen as warranting exploration of cross-categorical teacher training and licensure in that educationally relevant differences were minimal and similarities were great.

Beare, P. L., & Lynch, E. C. (1983). Rural area emotional disturbance service delivery: Problems and future directions. *Behavioral Disorders*, 8(4), 251-7.

This study investigated the status of Emotional Disturbance (ED) service delivery in rural and urban areas of three midwestern states. Information was gathered from directors of special education. Urban and rural areas were compared on level and types of services, and training and license of the involved teachers. Additional data were collected concerning the directors' perception of service delivery problems and solutions. Generally, rural areas were found to have more severe problems than urban areas in service delivery. Suggestions were offered to help alleviate delivery problems.

Beymer, J. K., & Hutchinson, R. L. (2002). Profile of problem children from a rural county in Indiana. *Adolescence*, 37(145), 183-208.

In order to better identify and understand problems experienced by delinquent children and adolescents in a rural county in Indiana, in-the-trenches professionals working with these children were interviewed. Comparisons are drawn between observations of these professionals and existing research findings regarding Disruptive Behavior Disorders (i.e., ADHD, ODD, CD).

Bloom, L. A., & Habel, J. (1998). Cliques, clans, community, and competence: The experiences of students with behavioral disorders in rural school systems. *Journal of Research in Rural Education*, 14(2), 95-106.

A romantic vision of ruralness persists in the minds of many, but it appears that living in a small rural community may not be an advantage for children and youth with, or at risk for, behavioral disorders. Recent social constructivist thought

stands in contrast to the prevailing view that the cognitive and the social can be studied independently. In this study we bring this social dimension of school to bear on the efforts of students with and at risk for behavioral disorders to acquire competence. An analysis of the descriptions of 39 students concerning their experiences in schools in a rural region of western North Carolina revealed two major themes: "community," with its components, relationships with peers, relationships with teachers, social isolation, creating community, and distorted belonging; and "competence," with its components, schools' contribution to incompetence, the dilemma of rural schools in encouraging competence, and encouraging competence. In order to reflect the richness and coherence of the students' accounts, results are presented using direct quotes and discussed within the context of current thought about social constructivism and research in behavioral disorders and rural education.

Jones, J. (2002). The cultural symbolisation of disordered and deviant behaviour: Young people's experiences in a Welsh rural market town. *Journal of Rural Studies*, 18(2), 213-217.

Global and national developments have brought into question traditional ways of asserting identity, as it is argued that society becomes increasingly homogenised. At a local level, communities have responded to such change (global meets local) by asserting identity through processes that have a direct bearing on their everyday lives. In the context of a market town in rural North Wales, the conceptual value of rurality and a cultural identity embedded in the landscape is no longer the primary marker that it was once perceived to be. Concepts of 'traditional community' and local (Welsh) culture are believed to be under threat from the in-migration of people from other areas. Local people have responded to such a change by utilising categories of criminal, deviant or disordered behaviour as signifiers which may determine one's cultural belonging and identity. It is a response that cuts across the whole community, and young people are one group, where this response is evident in terms of disordered and deviant behaviour.

Larson, D., & Palmer, B. (1994). Behavioral disorders in rural and isolated communities. *Multicultural issues in the education of students with behavioral disorders*. R. L. Peterson and S. Ishii-Jordan. Cambridge, MA: Brookline Books, 208-215.

Rural areas typically have a disproportionate percentage of students from poor families, with 30% of the farm population and 24% of the nonfarm population living in poverty (Helge, 1988). A report from the Center for Demographic Policy of the Institute for Educational Leadership (Hodgkinson, 1989) stated that children and youth make up 40% of those at the poverty level. The countryside offers no escape from the social and economic pressures that lead children to do poorly in school ("Countryside Offers," 1990). A study that surveyed school officials in 312 rural, urban and suburban districts cast doubt on that on the popular image of rural children leading wholesome, trouble-free lives compared with youngsters in crowded communities. Rural children and youth fared worse than nonrural in 34 out of 39 statistical comparisons, according to the survey conducted by the National Rural Development Institute. The report suggests that the social and economic strains facing rural school children are at least as severe as, and perhaps worse than, those facing city youngsters.

Li, Y., Shi, A. P., Wan, Y., Hotta, M. & Ushijima, H. (2001). Child behavior problems: Prevalence and correlates in rural minority areas of China. *Pediatrics International*, 43(6), 651-661.

Background: Ethnicity may possibly associate with different maternal child-rearing practices and child developmental problems. The aim of this study was to better understand epidemiological features and correlates of child behavior problem, in a large sample of children in economically disadvantaged rural minority areas of China and to provide reference data for subsequent intervention of child developmental problems.

Methods: A total of 1222 rural mother- child pairs belonging to Hani, Yi, Hui, Miao and Han were drawn from four economically disadvantaged minority counties in Yunnan Province of China. Well-trained investigators completed child

physical examination and measurements (height and weight) in village clinics and interviews of mothers at respondents' homes using a structured questionnaire.

Results: Child behavior problems were prevalent in children aged 2-6 years: 71.4% for temper tantrums: 48.2% for swearing: 36.0% for nocturnal bed-wetting 29.9% for disobedience: 29.5% for difficulty initiating sleep; and 17.0% for picky eating. Child behavior problems significantly differed across Hani, Yi, Hui, Miao and Han ethnic groups. Logistic regression indicated that ethnicity of Hui compared with Han, younger children. Prenatal risk factors, being a twin, ineffective child-rearing behaviors, such as pampering, corporal punishment, swaddling, family disagreement among child-rearing contributed independently to the risk for child behavior problems.

Conclusions: The child behavior problems were prevalent in children aged 2-6 years in rural minority children of China. Ineffective family child-rearing practices increase risk for child behavior problems.

Parents and Caregivers

Bussing, R., & Gary, F. A. (2001). Practice guidelines and parental ADHD treatment evaluations: Friends or foes? *Harvard Review of Psychiatry*, 9(5), 223-233.

In this exploratory descriptive study, we used focus groups to examine parental evaluations of treatment approaches to attention-deficit/hyperactivity disorder (ADHD) and the congruence of these evaluations with professional practice guidelines. We paid particular attention to home-care strategies and to parental experiences and attitudes regarding medications for ADHD. Some home-care techniques were consistent with evidence-based behavioral principles, whereas others seemed to be based on popular myths, with little indication that they could improve the child's behavior. Indeed, some might actually add unnecessary stress to the parent-child relationship by introducing ineffective limitations (e.g., dietary restrictions). Parental accounts uniformly depicted stimulant use, the cornerstone of ADHD treatment in the United States, as a difficult treatment modality to consider and accept for their children. Study findings indicate that professional guidelines and parent ADHD treatment evaluations are only partially congruent, with the greatest discrepancy in the role assigned to stimulants. Increased provider-parent communication concerning medications might improve adherence and treatment outcomes.

Bussing, R., Gary, F. A., Mason, D. M., Leon, C. E., Sinha, K., & Garvan, C. W. (2003). Child temperament, ADHD, and caregiver strain: Exploring relationships in an epidemiological sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(2), 184-192.

Objective: To investigate the relationship between child-reported dimensions of temperament and attention-deficit/hyperactivity disorder (ADHD), as well as other indicators of child psychopathology, including disruptive disorders, depression, and anxiety. It also examined whether difficult child temperament scores independently predicted caregiver strain.

Method: A school-district-wide, two-phase screening design (response rate 70%

for phase 2) identified elementary school children at high risk for ADHD. Two hundred high-risk children and their parents completed standardized instruments to assess child temperament, DSM-IV diagnoses of disruptive disorders, children's symptoms of anxiety and depression, and caregiver strain.

Relationships were examined using analysis of variance, correlations, and multivariate prediction models, adjusting for child sociodemographic characteristics and psychopathology. All estimates were weighted for sampling design and differential participation.

Results: Combined subtype ADHD was associated with lower scores on task orientation and higher scores on general activity level. Depressive symptoms correlated significantly with all but one difficult temperament dimension, in a pattern consistent with clinical symptoms of depression. Child temperament did not vary by ADHD treatment status. Among these high-risk children, maternal caregiver strain experiences were increased by male gender, inattention symptoms, and oppositional defiant disorder, but not by difficult temperament scores.

Conclusion: This study provides support for Graham and Stevenson's hypothesis of continuity between specific temperament traits and certain child psychiatric disorders, namely ADHD and depressive disorders.

Bussing, R., Schoenberg, N. E., Rogers, K. M., Zima, B. T., & Angus, S. (1998). Explanatory models of ADHD: Do they differ by ethnicity, child gender, or treatment status? *Journal of Emotional and Behavioral Disorders*, 6(4), 233-242.

This study describes parents' understanding, or explanatory models, of attention-deficit/ hyperactivity disorder (ADHD) and examines how such explanatory models differ by ethnicity, child gender, treatment status, and sociodemographic status. Children with ADHD were identified through a two-stage study of a school district special education population; this study included a screening and a diagnostic phase. In addition, a survey concerning parent-reported knowledge and attitudes about ADHD, and ethnographic interviews-based on Kleinman's patient explanatory model-to elicit parental beliefs were conducted. White parents were

more likely than African American parents to apply medical labels, expect a lifelong course, include school interventions in the desired treatment plan, and address academic and social outcomes. Compared to parents of boys, parents of affected girls were less likely to expect short duration of ADHD. Further research needs to be done to address the etiology of cultural and gender variations of explanatory models for ADHD, and to examine how specific explanatory styles affect help-seeking, treatment adherence, and outcomes for this important, treatable childhood condition.

Christensen, H. B., & Bilenberg, N. (2000). Behavioural and emotional problems in children of alcoholic mothers and fathers. *European Child & Adolescent Psychiatry*, 9(3), 219-226.

The Child Behavior Check List (CBCL) was used to compare a sample of 103 Danish children of alcoholics (CoA) to a Danish population-based sample (N=780). The CoA had significantly greater incidence of symptoms on 17 of the 118 CBCL items. Compared to the reference population, daughters of alcoholics were more impaired than sons of alcoholics on most CBCL measures. In families with maternal alcoholism daughters had higher internalising and depression scores than sons, and in families with paternal alcoholism, sons had higher internalising and depression scores than daughters. The CoA also had a significantly greater risk of scoring above the 95th percentile on internalising behaviour, depression symptoms and socially deviant behaviour. On all CBCL dimensions, almost half of the CoA samples functioned as well as the average of the reference population. The results from this study suggest that CoA should be regarded as a risk group but with very heterogeneous consequences in response to parental alcoholism.

DuPaul, G. J., Anastopoulos, A. D., Power, T. J., Reid, R., Ikeda, M. J., & McGoey, K. E. (1998). Parent ratings of attention-deficit/hyperactivity disorder symptoms: Factor structure and normative data. *Journal of Psychopathology and Behavioral Assessment*, 20(1), 83-102.

Changes in the diagnostic criteria for attention-deficit/hyperactivity disorder

(ADHD) have necessitated the creation of new measures for clinical assessment. The factor structure of a parent rating scale containing the 18 symptoms of ADHD was examined in this study. Factor analyses and assessment of differences in ADHD ratings across sex, age, and ethnic group were conducted using a sample of 4666 participants ranging in age from 4 to 20 years old who attended kindergarten through 12th grade in 22 school districts across the United States. Two factors (Inattention and Hyperactivity-Impulsivity) were derived and normative data for a nationally representative sample are presented. A higher frequency of ADHD symptoms was found for boys, younger children, and African-American participants. Potential uses of this scale in clinical practice and research are discussed.

Fewell, R. R., Deutscher, B., Thompson, B., & Percival, M. (2000). The relationship between early ADHD symptomology and mother's perceptions of behavior. *Infant Mental Health Journal*, 21(4-5), 462.

Objective: To determine the ability of observations of ADHD-like behaviors at 30 months, race, and group assignment to predict maternal indicators of ADHD-type behaviors using selected items from the Child Behavior Checklist at 36 months.
Methods: Subjects were 571 mother-child dyads videotaped as part of the Infant Health and Development Program (IHDP, 1990). Videotapes were rated for ADHD-type behaviors using a 12 item observational scale (ADHD-ORS). Promax rotation resulted in three factors-inattention, impulsivity, and overactivity.

Results: Multiple regression analyses were used to determine the contributions of five predictor variables (the 3 factors, group assignment, and race) on the outcome variable (maternal ratings on selected CBCL items). The total model accounted for 10% of the variance in the CBCL responses. Three variables contributed significantly: Inattention contributed 7%, race added 2%, and treatment group added 1%.

Conclusion: These findings indicate that trained observers can identify ADHD-like behaviors in children under the age of three as confirmed by mother's perceptions. Of interest is the fact that these behaviors can be observed during a

short , 8 minute videotape of mother-child play.

Malacrida, C. (2002). Alternative therapies and attention deficit disorder: Discourses of maternal responsibility and risk. *Gender & Society, 16*(3), 366-385.

In response to controversies about Attention Deficit Disorder (ADD) and Ritalin, many alternative therapies have proliferated in professional and lay circles. This study examines alternative therapy discourse and asks whether these texts offer any real challenge to traditional discourses of medicalized motherhood. Indeed, alternative therapies employ most of medicine's discursive strategies, portraying mothers as inadequate and responsible for their children's problems and positioning the child as both at risk and a danger to society. Furthermore, the speculative causal factors and the lengths to which mothers are encouraged to go in alternative therapy texts place a heavier burden on women than do traditional medical texts. Thus, while the medical treatment for ADD might be challenged, alternative therapy discourse supports the legitimacy of ADD as a diagnostic category, argues that its causes are personal and gendered, and claims that professional intervention remains the proper response.

Reimers, T. M., & Wacker, D. P. (1988). Parents' ratings of the acceptability of behavioral treatment recommendations made in an outpatient clinic: A preliminary analysis of the influence of treatment effectiveness. *Behavioral Disorders, 14*(1), 7-15.

Ratings of acceptability were obtained from 20 parents who came to a behavior management outpatient clinic for assistance with their children's behavior problems. Ratings of treatment acceptability were obtained both before and after a behavioral treatment recommendation was proposed to assess the relationship between acceptability and outcomes of the proposed recommendations. Results indicated that those composites which were significantly related to acceptability initially (disruption and willingness) were shown to have less of an impact on acceptability once the treatment had been attempted. Instead, parental ratings of the effectiveness of the treatment had the largest influence on acceptability. The need to replicate these findings in other settings with a larger population is warranted based on these results.

Soderlund, J., Epstein, M. H., Quinn, K. P., Cumblad, C., & Petersen, S. (1995). Parental perspectives on comprehensive services for children and youth with emotional and behavioral-disorders. *Behavioral Disorders, 20*(3), 157-170.

Concern about the educational, legal, and psychological/social problems experienced by children and youth with emotional and behavioral disorders (EBD) has led to the development of new approaches to serving these youngsters and their families. One new approach includes the evolution of a comprehensive, community-based system of care. This study solicited parent participation in a county-wide needs assessment designed to create the foundation for the development of a comprehensive system of care. Parents (N = 121) were surveyed to obtain their perceptions of their contacts with various service agencies as well as to gather their input into how comprehensive services could best be designed and implemented. Overall, parents viewed the services their family had received as favorable. However, their needs and concerns focused on obtaining information about community services, finding recreational activities for parents and children, and locating transition programs and alternative schooling for their children. The information presented will prove helpful for policy makers, agency administrators, and school personnel developing Systems of care to more effectively address the needs of children with EBD and their families.

Wacker, D. P., Berg, W. K., Harding, J. W., Derby, K. M., Asmus, J. M., & Healy, A. (1998). Evaluation and long-term treatment of aberrant behavior displayed by young children with disabilities. *Journal of Developmental and Behavioral Pediatrics, 19*(4), 260-266.

We trained parents to conduct functional analyses and functional communication treatment for 28 young children with developmental disabilities who displayed aberrant behavior. Of this sample, 22 parents conducted treatment for at least 3 months and 11 for 1 year. We conducted single-case analyses of the results of assessment and treatment. The functional analysis identified social functions (positive and negative reinforcement) for 86% (24 of 28) of the children. Treatment resulted in a pre/post decrease in aberrant behavior averaging 87%

across the range of children, with the greatest decrease occurring at 3 months.

Appropriate social responding increased, on average, by 69% across the range of children. Decreases in aberrant behavior were demonstrated in all children, and all except one child displayed increased social behavior during treatment. On a measure of parent-rated treatment acceptability, ranging from 1 (not at all acceptable) to 7 (very acceptable), the average overall acceptability was 6.35.

Teachers and Paraeducators

Alderman, G. L., & Nix, M. (1997). Teachers' intervention preferences related to explanations for behavior problems, severity of the problem, and teacher experience. *Behavioral Disorders, 22*(2), 87-95.

The purpose of this study was to examine teachers' preference for positive versus negative interventions based on the amount of information they were provided about the student with behavior problems. A total of 144 educators, mostly teachers, completed a questionnaire that asked them to choose the intervention they would be most likely to use. Half of the participants received scenarios that contained no explanation of behavior, and half had detailed explanations of possible reasons for misbehaviors. Although there was an overall preference for the selection of positive interventions, having an explanation of misbehavior did lead to the choice of more positive interventions than negative interventions in some cases. These choices are discussed as well as their relationship to the experience level of the teacher and the severity of the problem.

Beare, P. L. (1991). Philosophy, instructional methodology, training, and goals of teachers of the behaviorally disordered. *Behavioral Disorders, 16*(3), 211-8.

The field of behavioral disorders encompasses a variety of conflicting or opposed conceptual approaches and a range of intervention techniques stemming from these approaches. This study reports a survey of teachers of the behaviorally disordered, describing and comparing their conceptual approach, employed intervention techniques, and the goals they hold for their students. Though some relationship was found between theoretical approach and methodology, there was little relationship between goals and philosophy or methodology. Teacher training was found to be less than comprehensive concerning possible interventions and many teachers report using techniques not included in their preservice training program. Recommendations are made concerning improvement of training and development of a more unified philosophy for serving students with behavioral disorders.

Beyda, S. D., & Zentall, S. S. (1998). Administrative responses to AD/HD. *Reaching Today's Youth: The Community Circle of Caring Journal*, 2(2), 31-36.

Administrative support is crucial for helping teachers overcome different kinds of resistance that may keep them from implementing accommodations that have been demonstrated effective for students with AD/HD. This article summarizes the research and presents suggestions for administrative practices that can provide this necessary support.

Beyda, S. D., Zentall, S. S., & Ferko, D. J. K. (2002). The relationship between teacher practices and the task-appropriate and social behavior of students with behavioral disorders. *Behavioral Disorders*, 27(3), 236-55.

In this study we examined the association between teacher practices and the task appropriate behavior of students with behavioral disorders (BD). We collected direct observational data on general educators and on matched pairs of middle school students with and without BD. We found that teachers' use of student-centered practices (e.g., cooperative, support, information explicitness) versus teacher-directed classroom management practices was associated with positive and task-appropriate student behavior, but only for students with BD. In addition, teachers' negative practices were associated with negative behavior for students with BD. The findings and group differences we reported were moderated by specific activity settings, due perhaps to the types of teacher practices that were elicited in those settings. The major implication of this research is that the behavior of students with BD in general education settings is more dependent on setting factors and teacher practices than is the behavior of students without BD.

Bussing, R., Gary, F. A., Leon, C. E., Garvan, C. W., & Reid, R. (2002). General classroom teachers' information and perceptions of attention deficit hyperactivity disorder. *Behavioral Disorders*, 27(4), 327-9.

The authors used survey methods to examine three sources of teachers' ADHD information—exposure to students with ADHD, self-study, and formal ADHD training—as well as perceived teacher confidence in instructional tasks for

successful inclusion of students with ADHD and perceived barriers to such instruction. Participants represented a random sample of general elementary classroom teachers in five school districts in a southeastern state (N = 365). Almost all teachers had taught at least one student diagnosed with ADHD in the last 2 years. Virtually all teachers had read at least one article, and about 60% had read a book about ADHD. Half of the teachers had received some preservice ADHD training during their education, and three fourths had received inservice training after graduation, mostly of a brief nature. Of the teachers surveyed, 94% wanted more ADHD training. Teachers expressed lowest confidence in their ability to manage stress related to instructing students with ADHD. Class size and time requirements of special interventions were rated as the greatest barriers. General education teachers should receive preservice and inservice ADHD training, including skill-based teaching, and stress management. Smaller class size and the allocation of resources are essential to ensure high-quality student education.

Center, D. B., & Callaway, J. M. (1999). Self-reported job stress and personality in teachers of students with emotional or behavioral disorders. *Behavioral Disorders, 25*(1), 41-51.

This study examined self-reported stressors for teachers of students with emotional or behavioral disorders (E/BD) using a questionnaire developed specifically for the study. The study examined (a) the relationship between reported stressors and reported willingness to leave an E/BD teaching position, (b) the relationship between reported stressors and three personality traits from the Eysenck Personality Questionnaire-Revised (EPQ-R) and (c) the relationship between the Eysneck personality traits and E/BD teacher-reported injury by students. One expected result was that E/BD teachers reporting the largest number of stressors indicated a greater willingness to leave an E/BD teaching position than their peers with fewer stressors. Importantly, teachers who reported low stress scored significantly lower than teachers who reported high stress on the Psychoticism (P) and Neuroticism (N) scales, but not on the Extroversion (E)

scale on the EPQ-R. Teachers who reported low stress were significantly below the normal range for the N scale. Of the sample studies, 19% reported being injured by a student within the past 12 months, a significant increase above those reporting such occurrences in previous studies on teacher injury. Moreover, teachers who had been injured by a student scored significantly higher on Eysenck's P scale than did noninjured teachers, which suggests that such teachers may interact with students in a manner that puts them at greater risk for being injured. The results are discussed, and additional research is suggested.

DuPaul, G. J., Power, T. J., Anastopoulos, A. D., Reid, R., McGoey, K. E., & Ikeda, M. J. (1997). Teacher ratings of attention deficit hyperactivity disorder symptoms: Factor structure and normative data. *Psychological Assessment, 9*(4), 436-444.

Behavior rating scales are a primary method for screening and identifying children with attention deficit hyperactivity disorder (ADHD). The factorial structure and normative data of a teacher rating scale containing the 18 symptoms of ADHD were examined in this study. Factor analyses and assessment of differences in ADHD ratings across sex, age, and ethnic group were conducted with 4,009 children and adolescents who attended kindergarten through 12th grade in 31 U.S. school districts. Two factors (inattention and hyperactivity-impulsivity) were derived, and normative data for a nationally representative sample were presented. Boys, younger children, and African Americans received higher ratings of ADHD symptoms. Limitations of this investigation and potential uses of this scale in clinical practice and research are discussed.

Ishii-Jordan, S. R. (2000). Behavioral interventions used with diverse students. *Behavioral Disorders, 25*(4), 299-309.

Student racial and ethnic background and teacher experience influence teachers' decisions on behavioral interventions used in the classroom. A survey of regular and special educators indicated a significant main effect for the behavioral interventions used with students of differing racial and ethnic backgrounds. Teachers selected punishing and exclusionary interventions most often for Asian-

American students and least often for Hispanic-American students. Special educators were more likely than regular educators to use the behavioral interventions. Implications for teacher training, teacher self-awareness, and student population differences are discussed.

Katsiyannis, A., Landrum, T. J., Bullock, L., & Vinton, L. (1997). Certification requirements for teachers of students with emotional or behavioral disorders: A national survey. *Behavioral Disorders, 22*(3), 131-140.

Service delivery to students with emotional or behavioral disorders (EBD) has been a persistent challenge. These students are grossly underserved despite state and federal efforts intended to improve the quality of programming. The purpose of this study was to investigate state practices as they relate to the availability and nature of certification requirements. Over half of the states reported the existence of certification in EBD, and an analysis of the nature of certification requirements reflected variability regarding the specificity of skill development necessary to serve as a teacher of students with EBD.

Levy, S., & Vaughn, S. (2002). An observational study of teachers' reading instruction of students with emotional or behavioral disorders. *Behavioral Disorders, 27*(3), 215-35.

The authors documented reading instructional practices for students with emotional or behavioral disorders (E/BD) as well as strategies used by teachers to redirect behavior and provide positive support during reading. Six teachers of students with E/BD were observed during reading instruction and interviewed. Three of the six teachers provided some reading instruction that was documented as effective and designed to meet the instructional needs of students. Controlling student behavior through isolating students, providing extensive time for worksheets, and negative feedback dominated four teachers' reading instruction. Teachers reported limited knowledge about how to teach reading.

Maag, J. W., & Katsiyannis, A. (1999). Teacher preparation in E/BD: A national survey. *Behavioral Disorders, 24*(3), 189-196.

Surveys investigating teacher preparation program requirements and competencies for training teachers to work with students with emotional and behavioral disorders (E/BD) were mailed to 219 directors of E/BD training programs at colleges and universities representing 47 states. A total of 101 surveys from 32 states were returned, for a final response rate of 46%. Information was obtained over two primary areas: E/BD program practices and E/BD program competencies. Results of this survey were mixed. There were some encouraging practices such as offering E/BD programming at the graduate level. E/BD program competencies such as instruction, assessment, and behavior management were taught most frequently. However, there were some areas such as special education law and multicultural issues that received little attention. Other important competencies such as social skills instruction and transition practices were not even mentioned.

Maag, J. W., Vasa, S. F., & Reid, R. (1998). Frequency of interventions used by paraeducators with students with emotional and behavioral disorders. *Psychological Reports, 82*(3), 1121-1122.

Rated frequencies of use by 187 paraeducators of 15 interventions with students with disabilities included academic assistance, modeling appropriate behavior, giving reinforcement most often and restraining, a student or initiating time-out among least frequent.

Oseroff, A., Oseroff, C. E., Westling, D., & Gessner, L. J. (1999). Teachers' beliefs about maltreatment of students with emotional behavioral disorders. *Behavioral Disorders, 24*(3), 197-209.

A national survey of 556 teachers of students with emotional/behavior disorders (E/BD) was conducted to identify special educators' beliefs about child maltreatment among the students they taught. The respondents reported that they believed approximately 38% of their students had been abused physically or sexually, 41% had been neglected, and 51% had been abused emotionally. The

teachers reported that the behavior of their students, student reports, physical signs, and reports from others led them to believe that abuse or neglect had occurred. Furthermore, they reported that their students displayed many personal and behavioral characteristics often identified as indicators of maltreatment. Of the teachers surveyed, 82% related that they had reported maltreatment and that their reports were made most often to school administrators and least often to the abuse and neglect hotline. Implications for the education and treatment of children who have been maltreated and have E/BD are discussed as well as recommendations for research.

Power, T. J., Doherty, B. J., Panichelli-Mindel, S. M., Karustis, J. L., Eiraldi, R. B., Anastopoulos, A. D., & DuPaul, G. J. (1998). The predictive validity of parent and teacher reports of ADHD symptoms. *Journal of Psychopathology and Behavioral Assessment, 20*(1), 57-81.

The objectives were to evaluate the ability of the Inattention and Hyperactivity-Impulsivity factors of the ADHD Rating Scale-IV to differentiate children with ADHD from a control group and to discriminate children with different subtypes of ADHD. Also, we sought to determine optimal cutoff scores on the teacher and parent versions of this scale for making diagnostic decisions about ADHD. In a sample of 92 boys and girls 6 to 14 years of age referred to a regional ADHD program we assessed ADHD diagnostic status using categorical and dimensional approaches as well as parent- and teacher-report measures. Logistic regression analyses showed that the Inattention and Hyperactivity-Impulsivity factors of the ADHD Rating Scale-IV were effective in discriminating children with ADHD from a control group and differentiating children with ADHD, Combined Type from ADHD, Inattentive Type. Although both teacher and parent ratings were significantly predictive of diagnostic status, teacher ratings made a stronger contribution to the prediction of subtype membership. Using symptom utility estimates, optimal cutoff scores on the Inattention and Hyperactivity-Impulsivity scales for predicting subtypes of ADHD were determined.

Snider, V. W., Busch, T., & Arrowood, L. (2003). Teacher knowledge of stimulant medication and ADHD. *Remedial and Special Education, 24*(1), 46-56.

This study was designed to assess general and special education teachers' knowledge, opinions, and experience related to the diagnosis of attention-deficit/hyperactivity disorder (ADHD) and its treatment with stimulant medication. A random sample of 200 general educators and 200 special educators from Wisconsin were surveyed. Results revealed that teachers had limited knowledge about ADHD and the use of psychostimulant medication. Teachers' opinions about the effect of stimulant medication on school-related behaviors were generally positive, although special education teachers were more positive than general educators. The survey confirmed previous research indicating that teachers were the school personnel who most frequently recommended an assessment for ADHD. The results are discussed in terms of their educational significance and implications for teacher preparation and continuing education.

Stage, S. A., Cheney, D., Walker, B., & LaRocque, M. (2002). A preliminary discriminant and convergent validity study of the teacher functional behavioral assessment checklist. *School Psychology Review, 31*(1), 71-93.

Discriminant and convergent validity of the Teacher Functional Behavior Assessment Checklist (TFBAC) were examined using 89 first-through third-grade students. Students ($n = 14$) who received three or more TFBACs during a 6-week period differed from the other students ($n = 75$) on the scale profiles of the Behavioral Assessment System for Children (Reynolds & Kamphaus, 1992,1998), the Social Skills Rating System (Gresham & Elliott, 1990), the Behavioral and Emotional Rating Scale (Epstein & Sharma, 1998), and a 15-minute classroom behavioral observation, suggesting discriminant validity. Good to excellent agreement was found for teachers' repeated ratings of problem behaviors, suggesting reliable identification of problem behavior. The agreement on problem behavior using teacher ratings and a sequential time-lag analysis was fair. However, agreement between teacher ratings and sequential time-lag analysis was poor for determining the purported function of the problem behaviors. Therefore,

there was evidence of convergent validity of problem behaviors, although evidence for the convergent validity of the purported maintaining function of these behaviors was lacking. Results are discussed in terms of increasing the convergent validity of the TFBAC, teacher training in concepts about functional behavioral assessment, the possibility of concurrent functions maintaining problem behaviors, and the use of sequential time-lag analysis with a paper-and-pencil classroom observation methodology.

Taylor, P. B., Gunter, P. L., & Slate, J. R. (2001). Teachers' perceptions of inappropriate student behavior as a function of teachers' and students' gender and ethnic background. *Behavioral Disorders, 26*(2), 146-51.

This study investigated teachers' perceptions of inappropriate student behavior as a function of students' and teachers' gender and ethnic background characteristics. The study used videotapes depicting inappropriate behavior of four different students (i.e., African-American female, African-American male, White female, White male). A total of 87 inservice teachers and 99 preservice teachers viewed the videotapes. Following each videotape, participants were asked to complete a 32-item behavior rating scale focusing on the teachers' perceptions of the student in each videotape. Analysis of the data revealed statistically significant differences related to the gender of the teacher, but not to the ethnic background of the teacher. Statistically significant differences also were found among students depicted in the videotapes. The African-American female student was judged to display more problem behaviors than the White female student, and the White male student was rated as displaying more classroom difficulties than the White female student. Teachers were not found to make judgments based on their ethnic background. The gender of the teacher and the gender of the student appeared to have the most influence on teachers' perceptions of behavior.

Other

Benner, G. J., Nelson, J. R., & Epstein, M. H. (2002). Language skills of children with EBD: A literature review. *Journal of Emotional and Behavioral Disorders, 10*(1), 43-59.

This article systematically reviews the available research on the prevalence, strength, durability; and nature of language deficits in children formally identified with emotional and behavioral disorders (EBD). After applying inclusionary and exclusionary criteria, we reviewed 26 studies. Approximately three out of four children (71%) formally identified with EBD experienced clinically significant language deficits and approximately one out of two (57%) children with diagnosed language deficits also were identified with EBD. These deficits appeared to be broad-based in that they included pragmatic, receptive, and expressive language deficits. The results from longitudinal studies suggested that the rate of comorbidity between language deficits and EBD tends to either be stable or to increase over time. In addition, prevalence rates varied across studies, depending on the placement of children sampled, the stringency of the criteria for determining language deficit, and the number of language measures used. The findings and future research needs are discussed.

Cramond, B. (1994). Attention-deficit hyperactivity disorder and creativity—what is the connection? *Journal of Creative Behavior, 28*(3), 193-210.

The focus of this article is on the similarities between the behavioral manifestations of ADHD and creativity, some speculations about their common etiology, some illustrative case studies, and practical implications of mistaking one for the other. The possibility of an overlap in the conditions of high creativity and Attention Deficit Hyperactivity Disorder (ADHD) is proposed. Evidence in both groups of mixed laterality and anomalies in cerebral dominance, more spontaneous ideation, higher levels of sensation seeking behavior, and higher energy and activity than in normal populations is presented.

Eiraldi, R. B., Power, T. J., & Nezu, C. M. (1997). Patterns of comorbidity associated with subtypes of attention-deficit/hyperactivity disorder among 6- to 12-year-old children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36(4), 503-514.

Objective: To study externalizing and internalizing comorbidity patterns in 6- to 12-year-old children with attention-deficit/hyperactivity disorder (ADHD) combined subtype (n = 27), ADHD inattentive subtype (n = 26), and a normal control group (n = 33).

Method: Children were assigned to groups on the basis of results of a parent structured interview, which reflected DSM-IV diagnostic criteria, and teacher ratings of ADHD symptoms. Comorbid problems were assessed via parent and child structured interviews and parent and teacher behavior ratings.

Results: Logistic regression analyses and multivariate analyses of covariance revealed that (1) children in the ADHD combined group were significantly more likely to have a diagnosis of oppositional defiant disorder and conduct disorder and had significantly higher scores on parent and teacher ratings of externalizing problems than children in the ADHD inattentive and control groups, (2) children in the ADHD combined and ADHD inattentive groups had significantly higher scores on parent and teacher ratings of internalizing problems than children in the control group, and (3) children in the clinical groups did not differ with regard to internalizing disorders.

Conclusions: The results from this study indicate that a significant comorbidity exists between ADHD combined and oppositional defiant disorder/conduct disorder. Contrary to previous studies that were conducted using DSM-III diagnostic criteria for ADHD, no differences were found between ADHD combined and ADHD inattentive subtypes regarding internalizing disorders.

Gomez, R., & Condon, M. (1999). Central auditory processing ability in children with ADHD with and without learning disabilities. *Journal of Learning Disabilities*, 32(2), 150-158.

A few studies have shown more central auditory processing deficits in children with attention-deficit/hyperactivity disorder (ADHD) than in nondisabled

children. Because these studies failed to screen participants with ADHD for learning disabilities (LD), it is not clear whether these deficits are correlates of ADHD or LD or both. In the present study, the central auditory processing ability of children with ADHD, ADHD with LD, and no disabilities was examined. Results indicated lower central auditory processing ability, and significant correlations between reading and ADHD symptoms and reading and central auditory processing, ability in the ADHD with LD group compared with the other two groups. These findings suggest that central auditory processing deficits are more likely to be associated with LD than ADHD.

Kennedy, C. H. (2002). Toward a socially valid understanding of problem behavior. *Education and Treatment of Children, 25*(1), 142-53.

As the field of behavior analysis improves its understanding of the environmental and biological causes of problem behavior, the social importance of those findings needs to be established. Currently, research tends toward brief analyses of behavior in highly artificial settings. Although necessary for identifying the reinforcers, stimulus controls and establishing operations associated with problem behavior, much current research is of questionable social validity. A concern is that a technology of behavior analysis is being developed that may be of limited applied utility. The goal of this paper is to present a set of criteria that researchers may want to consider when seeking to establish a socially valid understanding of problem behavior.

Kortering, L., Braziel, P. M., & Tompkins, J. R. (2002). The challenge of school completion among youths with behavioral disorders: Another side of the story. *Behavioral Disorders, 27*(2), 142-54.

Youths with behavioral disorders (BD) are less likely to complete high school than are their peers with or without disabilities. This study used individual interviews with 33 students with BD to identify factors that may affect high school completion. Interview questions directed attention to what youths perceived as the best and worst part of school, advantages or disadvantages with

staying in school, changes to help individual youths stay in school, general recommendations for helping more youths stay in school, examples of how a teacher had really helped them, and their views of a high school diploma. We categorized youths' responses for each of five questions, along with providing information on demographic and school history features. The responses, when combined with demographic and school history information, provide insight into changes that might help more youths to complete high school.

LeClair, J. A. (2001). Children's behaviour and the urban environment: An ecological analysis. *Social Science & Medicine*, 53(3), 277-292.

This research examines the spatial distribution and ecological correlates of problem behaviour amongst children living in the most highly urbanised portion of Greater Victoria, British Columbia, Canada. Rates of problem behaviour within the sample differ substantially, at the census tract level, with respect to the mean rate calculated for the study area as a whole. While the degree of spatial concentration varies between behaviour types, each exhibits a similar overall trend, with the highest rates in the western and/or central portions of the study area, and the lowest rates around its northern and eastern periphery. Bivariate correlation analyses reveal significant ecological relationships between rates of problem behaviour and census measures of aggregate socio-economic status. The degree to which the urban ecology of the study area is related to census tract rates of problem behaviour is dependent upon the nature of the behaviour being considered. Results of contextual analyses using five ecological variables and their family-level equivalents suggest that, in some cases, census tract characteristics may have an independent impact upon behavioural status.

NadaRaja, S., Langley, J. D., McGee, R., Williams, S. M., Begg, D. J., & Reeder, A. I. (1997). Inattentive and hyperactive behaviors and driving offenses in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36(4), 515-522.

Objective: The associations between symptoms of attention-deficit hyperactivity disorder (ADHD), conduct disorder, anxiety, or depression and no disorder in

relation to driving offenses were examined in 916 adolescents.

Method: Self-report and parent report were used to assess a birth cohort of New Zealand adolescents' mental health status at age 15 years. Adolescents who scored 1.5 SD above the mean on the DSM-III total ADHD symptom scale were identified as reporting significant ADHD symptomatology. Self-report data and official traffic conviction records were used to identify adolescents who had committed driving offenses between ages 15 and 18 years.

Results: ADHD symptomatology and conduct disorder were strongly associated with driving offenses. ADHD symptomatology in females was significantly associated with driving offenses and more traffic crashes compared with other disorder or no disorder.

Conclusions: Adolescents with a history of ADHD and conduct problems are significantly more likely than their peers to commit traffic offenses. Research in ADHD and risky driving should include female adolescents, as those with attentional difficulties are at a high risk for being involved in traffic crashes than females who do not experience attentional difficulties.

Offord, D. R., & Lipman, E. L. (1996). Emotional and behavioural problems. *Growing up in Canada: National longitudinal survey of children and youth*. Ottawa: Human Resources Development Canada and Statistics Canada, 119-126.

Pineda, D. A., Lopera, F., Palacio, J. D., Ramirez, D., & Henao, G. C. (2003). Prevalence estimations of attention-deficit/hyperactivity disorder: Differential diagnoses and comorbidities in a colombian sample. *International Journal of Neuroscience*, 113(1), 49-71.

The aim of this article was to analyze the prevalence of Attention Deficit/Hyperactivity Disorder (ADHD) in Colombian "Paisa" children and adolescents. A randomized sample of 4- to 17-year-old children and adolescents- 176 males and 154 females- was selected from schools in Manizales, Colombia. The diagnosis of ADHD was obtained using a semistructured psychiatric and neurological interview, medical histories revision, and neurological or psychiatric evaluations. Several rating scales and a neuropsychological assessment were administered in order to confirm the diagnosis. Children with Full Scale

Intelligence Quotient (FSIQ) between 71 and 84 were recorded as having Borderline Intellectual Functioning (BIF), and those with a history of mild motor retardation, and/or Performance Intelligence Quotient (PIQ) lower than 71, were recorded as having a Developmental Coordination disorder (DCD), after confirmation by neurological and neuropsychological examinations. BIF and DCD children were excluded from the ADHD group. Total prevalence of ADHD adjusted by sex was 16.4% (males 19.8% and females 12.3%). Prevalence of clean ADHD cases was 11.5%, distributed as follows: combined type, 6.4%; inattentive, 4.8%; and hyperactive-impulsive, 0.3%. Distribution by sex was as follows: males, 14.8%; and females, 7.7%; with all odds ratio of 2.1 (95% CI: 1 - 4.5, $\chi^2(2) = 4.0$, $p < .05$). Clean prevalence of ADHD adjusted by equal sex distribution was 11.3%. prevalence of BIF was 5.8%, DCD 3.0%, and mild mental retardation 3.9%. Prevalence of ADHD did not show differences by socioeconomic status (SES), in contrast to mild mental retardation in which BIF and DCD were significantly more frequent in the lower SES.

Walker, H. M., Forness, S. R., Kauffman, J. M., Epstein, M. H., Gresham, F. M., Nelson, C. M., & Strain, P. S. (1998). Macro-social validation: Referencing outcomes in behavioral disorders to societal issues and problems. *Behavioral Disorders, 24*(1), 7-18.

During the past two decades, the field of special education has become politicized and fragmented as a result of internal strife and turf battles among professionals. Special education often is perceived by professionals in other fields as strife ridden, expensive, litigious, consumed with legislative mandates and court orders, and ineffective. These perceptions have damaged special education's status and hindered its ability to pursue its agenda. By association, the field of behavioral disorders also has suffered from these perceptions. We need to rededicate ourselves to empirical inquiry and use our collective expertise to find solutions to problems that are of great concern to children and families as well as the larger society. In so doing, we may achieve a degree of macrosocial validation for our efforts. The term macrosocial validation, as used herein, refers to recognition, approval, and valuing of a field's professional activities by the larger

constituencies affected by them, such as the general public, the U.S. Congress, and policymakers.

Walker, H. M., Zeller, R. W., Close, D. W., Webber, J., & Gresham, F. (1999). The present unwrapped: Change and challenge in the field of behavioral disorders. *Behavioral Disorders, 24*(4), 293-304.

This article examines the present state of affairs in the field of behavioral disorders. The case is made that the field's target population has changed dramatically for the worse over the past 25 years due primarily to the transformation of our society in an unfortunate manner. Because of long-term exposure to such risk factors as poverty, drug and alcohol use by caregivers, child neglect, social fragmentation, weak parenting practices, and violent images in the media, we have produced a generation of children and youth who are far more at risk for unhealthy lives than prior generations. Our society's response to the damaging effects of these developments (e.g. school failure and dropout, delinquency, violent acts) have been characterized primarily by the use of punishing sanctions designed to teach vulnerable children and youth lessons of avoidance rather than to prevent these conditions or to habilitate the victims of them. Strategies are suggested for professionals to consider in advocating for new, proactive approaches in addressing these societal problems.

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