

DISCUSSION ONE

Prior to beginning work on this discussion, read the Splett, Fowler, Weist, McDaniel, & Dvorsky (2013), Stinnett, Bui, & Capaccioli, (2013), and Kosher, Jiang, Ben-Arieh, & Huebner, (2014) articles, and review Chapters 10 through 13 in your textbook.

For this discussion, you will be taking on the role of the school psychologist in a public middle school. In this role, you will facilitate the evaluation of a student based on psychoeducational personality assessments, mental status exam, and observations of the student to make recommendations to the education team consisting of yourself, school counselors, and teachers who work with the student. Carefully review the PSY615: Week Three School Psychologist-Based Personality and Behavior Assessment Scenario (Links to an external site.)Links to an external site..

In your initial post:

- Examine the personality assessment instrument used in the scenario and research a peer-reviewed article in the Ashford University Library on this personality assessment.
- Using the required articles as well as your researched article to support your statements, describe the standard use of this personality assessment.
- Based on the scenario, evaluate the reliability, validity, and cultural considerations inherent to the personality assessment used and comment on the relevance of these elements within the scenario.
- Analyze and describe some of the potential ethical issues which might arise from the use of this personality assessment in the given scenario.
- Provide information from your research regarding the use of the personality measure, and assess the value of other possible instruments that could be added to create a more complete assessment of the student in the scenario.

PSY615: Week Three School Psychologist-Based Personality and Behavior Assessment Scenario

PSYCHOLOGICAL EVALUATION

(Johnson Middle School)

Jane Smith

Date of Evaluation: 10/12/2013

Grade: 8

Age: 14

PURPOSE FOR EVALUATION:

Jane was recommended for evaluation by the school psychologist due to recent behavior problems and declining academic performance.

ASSESSMENT PROCEDURES:

The clinical psychiatrist on duty recommended the following assessments:

- Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A)
- Mental Status Examination
- Review of School Records
- Review of Prior Medical Records
- Interview and Observation

ASSESSMENT RESULTS:

Note: Typically, this section reports test results of all the recommended assessments. Here you are provided with the abbreviated results from the MMPI-A, the mental health examination, records review, and interview/observation.

Interpretive results from the MMPI-A are presented below.

Validity Considerations

Jane's approach to completing the MMPI-A was open and cooperative. The resulting MMPI-A results appear valid and is probably a good indication of her present level of personality functioning. Her compliance is a good indicator of positive involvement with this evaluation.

Symptomatic Behavior

This student's MMPI-A clinical profile indicates multiple serious behavior problems including explosive behavior, school maladjustment, and adolescent conduct problems. She can be moody, resentful, and impulsive. Jane also shows signs of adolescent alienation (social isolation), low

PSY615: Week Three School Psychologist-Based Personality and Behavior Assessment Scenario

self-esteem, and depression. She may run away or isolate herself to avoid punishment. Her lack of good judgment may lead her to inappropriate behavior and get her into trouble.

Her two highest clinical scales, Depression (D) and Psychopathic Deviate Subscales (Pd), are clearly above the other scales in the measure, and occur at this high a level in less than 1% of the normative sample (by Pearson Assessments).

An examination of her underlying personality factors on the PSY-5 scales could help explain any behavior problems she is currently exhibiting. Jane seems to be self-isolating and appears to have increasing social alienation. She tends to see the world in a negative light, worries to excess, and may develop more belligerent behavior expressions.

Interpersonal Relations

Jane is an intelligent and likeable person. She seems to make a good initial impression on others, but seems unable to build deep and lasting relationships. She is empathetic and gets along with other children younger than her, but seems to have trouble with building positive connections in her peer group.

The MMPI-A Content Scales profile offers some additional information about her interpersonal relationships. She reported some interpersonal suspiciousness, which indicates a distrust of others. She also shows high levels of antisocial attitudes and negative peer-group influences, which might help to explain her emotional outbursts and belligerent behaviors.

Diagnostic Considerations

More information will have to be collected about Jane's emotional and behavioral problems before a complete diagnosis can be made. Her elevated scores on the Psychopathic Deviate Subscales (Pd) suggest that behavior problems should be considered.

She has exhibited at-risk behaviors such as smoking. She acknowledges she had been criticized by her parents for her behavior and should be monitored for potential use of drugs and alcohol.

PSY615: Week Three School Psychologist-Based Personality and Behavior Assessment Scenario

Treatment Considerations

Jane's behavior and emotional issues should be central in any treatment planning. Her clinical scales profile suggests she is a good candidate for a behavioral treatment strategy. Consistency will be important to reinforce appropriate behaviors.

She has the potential for drug and alcohol abuse. She has acknowledged such inclinations and intervention strategies should be included in the treatment plan.

She should be monitored and evaluated for potential suicidal thoughts and ideation, and possible suicidal behaviors. Appropriate cautions should be taken if such behaviors become evident.

Jane has shown academic potential and positive interest in some activities. Her skill and abilities, as well as those positive aspects, should be reinforced.

BACKGROUND INFORMATION:

Jane was referred to the school psychologist for evaluation due to recent emotional outbursts in the classroom and lack of academic progress in the most recent 6-week period. She reports having recent troubles with bullying from peers, and often appears sad. Information regarding Jane's developmental progress, family history, school history, and behavior at home was provided by her parents. Jane's developmental milestones were reported to be within normal time ranges. Her parents indicated that she can be trusted, seems to get along well with other children and her younger brother, but often seems restless and is easily frustrated.

School records indicate that Jane had five excused absences due to illness so far this year, and no unexcused tardies. She has been referred for in-school suspension three times for behavioral outbursts in the classroom. Jane's grades consist of mostly C's and she is failing two of her classes. Her writing and readings skills are well above the average for her age, and she seems to work better when working directly with teachers rather than peers.

Records indicate Jane is up to date on required shots, has completed vision and hearing testing, and her physical well-being appears to be in the normal range for her age group.

Her parents have indicated that Jane has been showing increasing signs of frustration and argumentative behavior. They also indicate that she has intentionally missed curfew several times. They also stated that

PSY615: Week Three School Psychologist-Based Personality and Behavior Assessment Scenario

they have found her experimenting with smoking cigarettes. Jane's parents seem concerned that her behavior will move beyond their control.

MENTAL STATUS EXAMINATION:

Observational conclusions of the patient's attitude were as follows:

Jane seems to be intelligent and aware of her surroundings and situation. She appears remorseful about her emotional outbursts, but she does not consider her actions to be severe. She was compliant with all parts of the evaluation and stated that she is willing to work with the student intervention team.

Jane stated that her increasing frustration with peers was due to being bullied by some of her peers, and she indicated that she often feels sad and depressed. She stated that she had been experimenting with smoking. Jane stated that she has had thoughts of suicide recently, but she indicated no intention to act. Observation and further assessment is recommended.

THE CRITICAL ROLE OF SCHOOL PSYCHOLOGY IN THE SCHOOL MENTAL HEALTH MOVEMENT

JONI WILLIAMS SPLETT, JOHNATHAN FOWLER, MARK D. WEIST, AND HEATHER MCDANIEL

University of South Carolina

MELISSA DVORSKY

Virginia Commonwealth University

School mental health (SMH) programs are gaining momentum and, when done well, are associated with improved academic and social-emotional outcomes. Professionals from several education and mental health disciplines have sound training and experiences needed to play a critical role in delivering quality SMH services. School psychologists, specifically, are in a key position to advance SMH programs and services. Studies have documented that school psychologists desire more prominent roles in the growth and improvement of SMH, and current practice models from national organizations encourage such enhanced involvement. This article identifies the roles of school psychologists across a three-tiered continuum of SMH practice and offers an analysis of current training and professional development opportunities aimed at such role enhancement. We provide a justification for the role of school psychologists in SMH, describe a framework for school psychologists in the SMH delivery system, discuss barriers to and enablers of this role for school psychologists, and conclude with recommendations for training and policy. © 2013 Wiley Periodicals, Inc.

Although mental health challenges experienced early in childhood tend to be stable and predictive of negative outcomes later in youth, early prevention and intervention has the potential to alter this negative trajectory (Hill, Lochman, Coie, Greenberg, & Conduct Problems Prevention Research Group [CPPRG], 2004; Lochman & CPPRG, 1995). Unfortunately, only a small percentage of students experiencing mental health problems are identified and receive treatment by "frontline gate-keepers," such as educators, school psychologists, mental health clinicians, or pediatricians (Briggs-Gowan, Horwitz, Schwab-Stone, Leventhal, & Leaf, 2000). In fact, only approximately half of children in need of mental health services actually receive help (Merikangas et al., 2010). In response to this need, school mental health (SMH) programs have progressively expanded over the past several decades (Foster, Rollefson, Doksum, Noonan, & Robinson, 2005; Weist & Murray, 2007). The expansion of SMH programs relates to a range of positive outcomes, such as enhanced access to early intervention, improved academic performance, decreased stigma, and reduced emotional and behavioral disorders (e.g., see Hoagwood, Kratochwill, Kerker, & Olin, 2005; Hussey & Guo, 2003).

As SMH programs are increasingly prominent in efforts to bridge the gap between unmet youth mental health needs and effective services, SMH workforce development will be a key factor in promoting success for students (Hoge et al., 2005). Several professionals, such as school counselors, school psychologists, school social workers, school nurses, and special education teachers, play a critical role in delivering SMH services (Mellin, Anderson-Butcher, & Bronstein, 2011). Generally, each of these professionals has the sound training and experiences needed to deliver quality SMH services and work collaboratively across disciplines (Ball, Anderson-Butcher, Mellin, & Green, 2010). Working collaboratively is important because it is clear that not one discipline can individually address the multifaceted mental health barriers to student learning. Although the remainder of this article focuses on the role of school psychologists in SMH, it is important to remember that more

Correspondence to: Joni Williams Splett, University of South Carolina, Department of Psychology, 1512 Pendleton St., Columbia, SC 29202. E-mail: splett@mailbox.sc.edu

effectively meeting the mental health needs of all youth will require the competency and collaboration of all mental health and education professionals (Flaherty et al., 1998).

School psychologists are in a key position to advance SMH and desire this involvement (Curtis, Hunley, Walker, & Baker, 1999; Fagan & Wise, 2007), but research suggests that school psychologists have not been able to assume this role to the degree promoted or desired (Curtis, Grier, & Hunley, 2003; Friedrich, 2010). The purpose of this article is to identify the roles of school psychologists across a continuum of SMH practice and to offer an analysis of current training and professional development opportunities. In the following section, we provide justification for school psychologists' enhanced role in SMH, within a public health framework for prevention and intervention. We then discuss barriers to and enablers of this role for school psychologists and conclude with actionable recommendations for training and practice.

SMH AND SCHOOL PSYCHOLOGY

Similar to other SMH professionals, school psychologists possess a unique blend of knowledge regarding multiple factors influencing SMH programs and services, including developmental risk factors, the impact of behavior and mental health on learning and life skill development, instructional design, organization and operation of schools, and evidence-based strategies for promoting mental health and wellness (see National Association of School Psychologists [NASP], 2010a). Additionally, literature and policy documents from the NASP (2010a, 2010b, 2010c) encourage and delineate a role for school psychologists in SMH (e.g., see Sheridan & Gutkin, 2000). For example, Figure 1 illustrates the NASP Model for Comprehensive and Integrated School Psychological Services, which delineates services that might typically be provided by school psychologists, including "interventions and mental health services to develop social and life skills" (NASP, 2010a, p. 2; Ysseldyke et al., 2006). Along with the NASP standards for graduate training and credentialing, these policy documents indicate not only that practicing school psychologists are expected to provide mental health services to children, families, and schools, but also that quality training that meets professional standards should be provided to them at pre- and in-service levels (NASP, 2010b, 2010c).

Unfortunately, however, this historically has not been the case; despite a desire to offer expanded services, school psychologists have traditionally been limited to heavy psychological assessment caseloads consuming more than 50% of their work (Hosp & Reschly, 2002; Reschly, 2000). But some evidence suggests that school psychologists may be expanding their role and providing more mental health services. In a recent survey of school psychologists, Friedrich (2010) reported that approximately 50% of their work week involved mental health services, such as consultation with school staff and problem-solving teams, social-emotional-behavioral assessment, and various forms of counseling. To further promote this trend, we delineate an expanded role school psychologists could have in providing a continuum of SMH prevention and intervention in the following section. By identifying the role of school psychologists in this manner, we hope to raise awareness of what mental health services school psychologists could be providing within the field of school psychology and among administrators, teachers, other mental health providers, families, and graduate trainers.

SMH Services Provided by School Psychologists

The fields of school psychology and education, in general, are increasingly adopting tiered models of learning; behavioral and mental health services and supports, including School-Wide Positive Behavior Supports (SWPBS; Horner, Sugai, & Anderson, 2010); Response to Intervention (RTI; National Center on Response to Intervention, 2010); and the Interconnected Systems Framework, which bridges SMH practices and SWPBS (Barrett, Eber, & Weist, 2009). These models

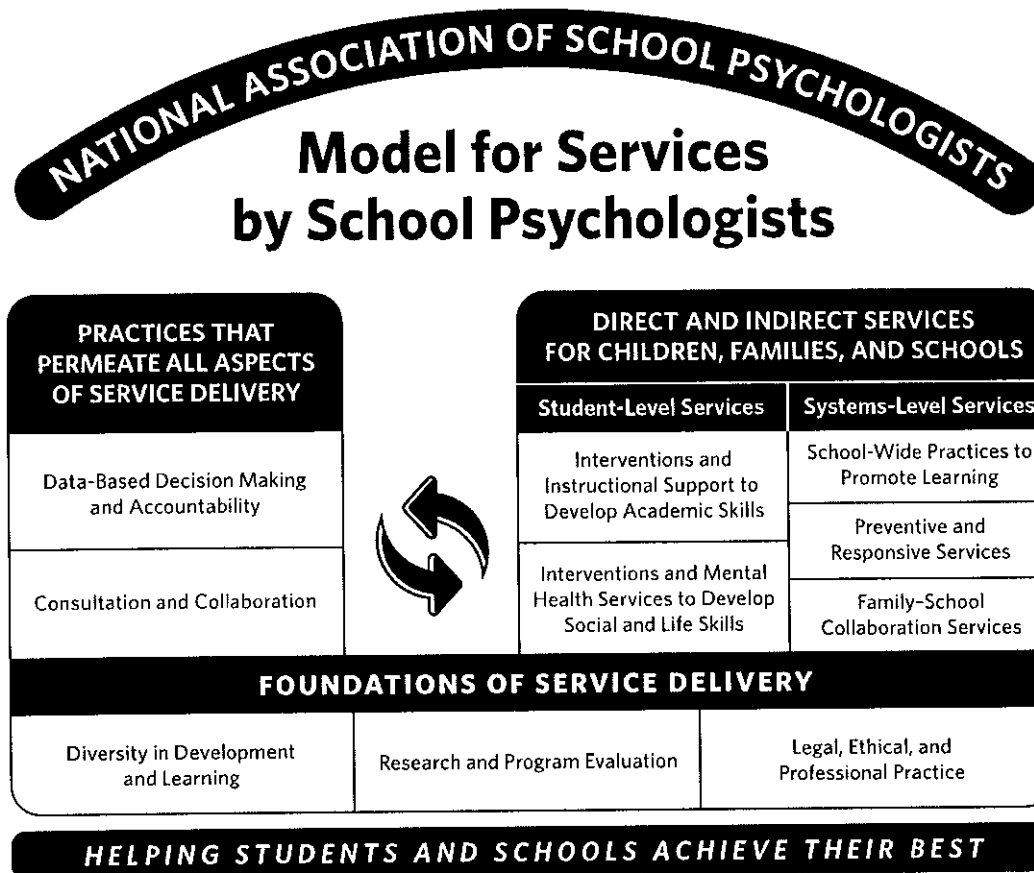


FIGURE 1. National Association of School Psychologists' Model for Comprehensive and Integrated School Psychological Services. (Reprinted from *Model for Comprehensive and Integrated School Psychological Services*, *NASP Practice Model Overview* [Brochure], by National Association of School Psychologists, 2010, Bethesda, MD: National Association of School Psychologists. Retrieved from http://www.nasponline.org/standards/practice-model/Practice_Model_Brochure.pdf. Reprinted with permission.)

are based on a public health approach and promote a continuum of support, including school-wide prevention, early intervention, and more intense treatment (Gordon, 1983). Given the overwhelming predominance of tiered models in the field, we have conceptualized the role of school psychologists in providing mental health services within and across this framework.

Framework. The public health, tiered model includes prevention and intervention services across three tiers that are commonly called universal, selective, and indicated (Gordon, 1983; O'Connell, Boat & Warner, 2009). As this model has been applied widely in educational settings, the terminology has been modified, resulting in multiple names for each tier across fields. For example, SWPBS and RTI refer to the three tiers as primary, secondary, and tertiary, or Tier 1, Tier 2, and Tier 3 (Horner et al., 2010; National Center on Response to Intervention, 2010). Although the conceptual difference among terminologies is minimal, the inconsistencies across fields have created unnecessary confusion and should be resolved.

In the public health model, all students have access to universal services and practices, and the majority of students (e.g., 80%) will only need this level of support. However, some students

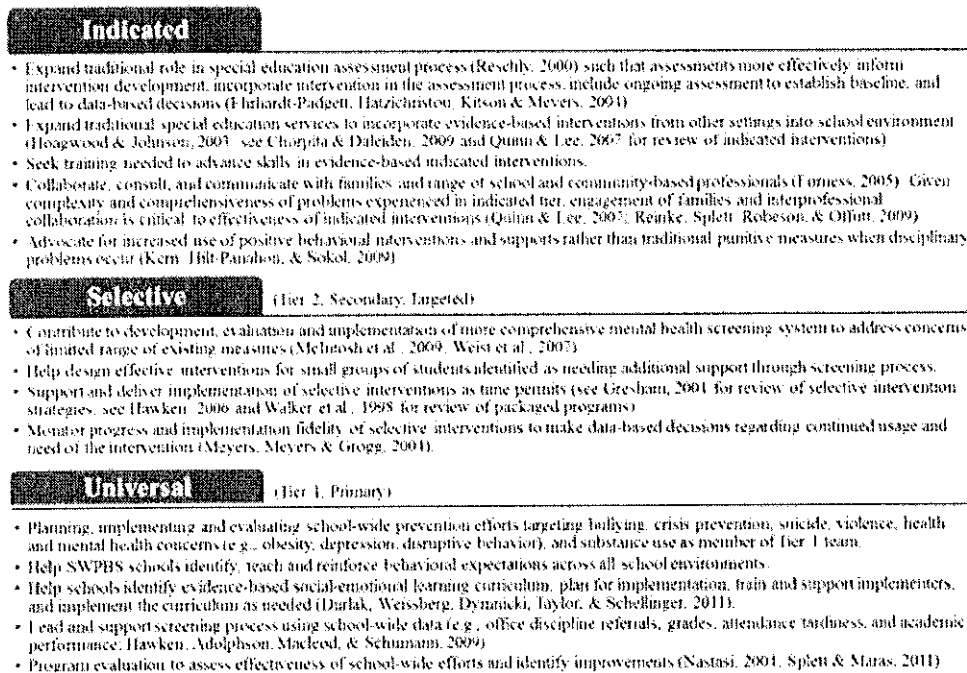


FIGURE 2. The mental health services that school psychologists and other school mental health professionals could provide within and across tiers.

demonstrating emerging difficulties will need selective supports and interventions (e.g., about 15%), whereas an even smaller percentage of students will need indicated treatments (e.g., about 5%; Horner et al., 2010; O'Connell et al., 2009). Commonly, services across these three tiers are provided through a variety of school teams, composed of administrators, teachers, SMH professionals, students, and/or families (Markle, Splett, Maras, & Weston, in press). For example, schools implementing SWPBS and/or RTI may have a school leadership team in charge of universal prevention efforts (Yergat, 2011); intervention, student support, and/or teacher assistance teams at the selective level (Hawken, Adolphson, Macleod, & Schumann, 2009); and multidisciplinary special education teams, wraparound teams, and/or interagency teams at the indicated level (Eber, Sugai, Smith & Scott, 2002; Freeman et al., 2006; Turnbull et al., 2002). The mental health services that school psychologists, as well as other SMH professionals and school teams, could provide are delineated in Figure 2.

School Psychologists and Three-Tiered, Mental Health Services. As illustrated in the bottom box of Figure 2, school psychologists, in collaboration with other school and mental health professionals are involved in planning, implementing, and evaluating school-wide prevention efforts at the universal level. They are critical members of their school's Tier 1 team, as they possess unique knowledge of best practice efforts to prevent mental health concerns, program planning and evaluation, and data-based decision making (NASP, 2010a; Splett & Maras, 2011). At the selective level, as indicated in the middle box of Figure 2, school psychologists have the knowledge and experience to be integrally involved in the screening process, intervention development and delivery, teacher and team consultation to support intervention implementation, and progress monitoring (Gresham, 2008; Hawken et al., 2009; Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007). Finally, at the indicated level (top box of Figure 2), school psychologists' knowledge and skills in assessment, intervention, consultation, and

collaboration position them to be highly qualified and needed in roles delivering interventions, as well as consulting, collaborating, and communicating with families and other school and community professionals (Hoagwood & Johnson, 2003; Weist, 2003). In the following section, factors that may facilitate or hinder the ability of school psychologists to take on an expanded role, such as the one described in Figure 2, are addressed.

BARRIERS TO AND ENABLERS OF BEST PRACTICES

Although discussion of ideal roles and responsibilities of school psychologists in the provision of SMH services is an important exercise, equally crucial is the exploration of factors that may serve as barriers to or enablers of such responsibilities. Several studies have surveyed school psychologists regarding their actual and desired duties, as well as their perceptions of what assists or hinders their active involvement in SMH (Bramlett, Murphy, Johnson, Wallingsford, & Hall, 2002; Friedrich, 2010; Hosp & Reschly, 2002; Noltemeyer & McLaughlin, 2011; Suldo, Friedrich, & Michalowski, 2010). Some of the facilitating and obstructing factors cited across these sources include time constraints, administrative support, pre-service training and supervision, professional development, cultural awareness, and the frequency and type of referrals made for services.

Time and Personal Prioritization

The type and quality of services that school psychologists are able to provide are affected by the practitioner's available time, which is affected by many time-consuming responsibilities and often itinerant assignments to multiple school buildings. Several studies have shown that school psychologists spend the majority of their time involved in assessment activities, especially as they relate to special education eligibility determinations (Stoiber & Vanderwood, 2008). However, it is not identified as the most valuable activity or the area where professional development was desired (Stoiber & Vanderwood, 2008). Although assessment and special education procedures are necessary roles, their continued dominance has prevented school psychologists from taking on a broader continuum of SMH services (Harrison et al., 2004; Meyers & Swerdlik, 2003). Unfortunately, a dissonance between ideal time allocation and actual duties of school psychologists is often significant (Hosp & Reschly, 2002). In addition, school psychologists are often assigned to multiple schools, meaning there are days when they are unavailable to students and staff at a particular school and unable to meet the mental health needs that arise. Itinerant placements also decrease school psychologists' access to staff and students, making it difficult to become integrated in the school and bring visibility to the breadth of SMH services they can offer (Meyers & Swerdlik, 2003; Suldo et al., 2010).

Conversely, school psychologists with lower student-to-school psychologist ratios and manageable assessment and intervention caseloads report providing more SMH services and seeking more professional development related to social-emotional interventions (Harrison et al., 2004; Meyers & Swerdlik, 2003). Further, the school psychologist's personal desire to provide SMH interventions actually helps to increase involvement in them (Suldo et al., 2010). Despite the desire and time to provide quality SMH services, school psychologists often still encounter barriers related to inadequate and insufficient training, supervision, and professional development in SMH roles and activities.

Training Limitations

School psychologists' training and competence in SMH services is another area that can inhibit, as well as facilitate, the provision of SMH services. For example, Stoiber and Vanderwood (2008) found that surveyed school psychologists reported feeling less competent in providing

prevention/intervention activities than assessment and consultation/collaboration activities. Similarly, in a statewide survey asking school psychologists about their awareness and understanding of the most recent guidelines for school psychology training and practice from Blueprint III (see Figure 1), Noltemeyer and McLaughlin (2011) found that only 25% of respondents reported expertise in the practice domain, “enhancing the development of wellness, social skills, and life skills.” School psychologists may feel they are not experts in providing SMH services due to a perceived lack of content knowledge and applied experiences (Suldo et al., 2010). Interviewees in Suldo and colleagues’ study (2010) described feeling they had too little exposure to important SMH topics, such as treatment planning and group counseling during pre- and in-service training, likely leading to a lack of confidence in their ability to competently provide these services. Further complicating the problem is the fact that the population of students and families increasingly in need of SMH services are from diverse, multicultural backgrounds for which school psychologists also have insufficient training and supervision (Newell et al., 2010). This is also true for other mental health staff working in schools (Clauss-Ehlers, Serpell, & Weist, in press). These factors present a situation in which SMH providers, including school psychologists, feel underprepared and overwhelmed to broaden their role in SMH programs.

Conversely, school psychologists interviewed by Suldo and colleagues (2010) frequently indicated that sufficient training and/or confidence in one’s ability were facilitators of comprehensive SMH services. Specifically, interviewees noted the importance of training experiences that fostered skill development in sufficiently preparing them to engage in a range of SMH activities.

Collaboration With and Engagement of School Personnel

At the school-building level, the relationship and interactions between school psychologists and other school staff impacts the staff’s perception of the school psychologist and the breadth of services school psychologists offer. For example, inordinate time allocated to one area of practice (i.e., assessment; Stoiber & Vanderwood, 2008) likely prohibits school psychologists from expanding the services they offer. In schools where school psychologists spend nearly all of their time engaged in special education eligibility determination, other school staff may not realize the breadth of skills school psychologists may possess across the prevention and intervention continuum and therefore may not go to them for help or with concerns (Harrison et al., 2004). As a result, the perception of administrators, other school staff, families, and the community regarding the role and function of school psychologists is likely limited to diagnostic responsibilities in many settings (Harrison et al., 2004; Meyers & Swerdlik, 2003).

Schools’ often narrowly-defined emphasis on academics and achievement outcomes also likely limits school psychologists’ ability to expand the SMH services they offer (Hoagwood et al., 2005; Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). Research over the past two decades has documented that most schools perceive their primary mission to be academics, with the legitimacy of any focus on social-emotional development frequently questioned (De’Homme, Kasari, Forness, and Bagley, 1996; Lloyd, Kauffman, Landrum, & Roe, 1991). More recently, school psychologists interviewed by Suldo and colleagues (2010) reported that many staff in their schools are exclusively focused on academics and lack concern for students’ mental health.

Generating appropriate referrals for services can also be challenging for SMH providers. For example, there is evidence that youth presenting “internalizing” disorders such as depression, anxiety and trauma, interpersonal issues, and developmental problems may be referred for services less often, whereas students showing acting-out behaviors, attention deficit hyperactivity disorder, or clear academic problems are more likely to be referred (Friedrich, 2010). A number of reasons may account for these findings, including inadequate knowledge and training in identifying students’

mental health concerns among most school staff (Severson et al., 2007). The issue of over- and under-referred students limits mental health providers' ability to provide an appropriate, full continuum of SMH services.

In contrast, school psychologists who are supported in delivering SMH services by their building-level administrators and teachers are more likely to engage in a breadth of activities (Suldo et al., 2010). For example, Suldo and colleagues (2010) found that teachers' support of SMH services and expectation of the school psychologist's role to include SMH responsibilities were enablers of school psychologists' ability to engage in related activities.

District and Systems Issues

At the district level, the conceptualization of the school psychologist's role, provision of sufficient resources, and in-house professional development impact the breadth of SMH services school psychologists provide. For example, a prominent theme in focus groups conducted by Suldo and colleagues (2010) was that school psychologists' district-level department and administration's definition of their roles and responsibilities either excluded SMH services or was too ambiguous to facilitate a defined role. In contrast, districts that prioritized SMH services by providing explicit permission to school psychologists to engage in related activities through guidelines for SMH services, job descriptions inclusive of SMH services, district mental health initiatives, and the allocation of sufficient financial and personnel resources, in fact, increased school psychologists' involvement in them (Suldo et al., 2010). Providing internal professional development opportunities related to SMH services also demonstrates support for such activities and ensures a competent workforce (Suldo et al., 2010).

RECOMMENDATIONS TO ENHANCE INVOLVEMENT AND LEADERSHIP IN SMH

It is clear that school psychologists are in a unique position to influence and shape the evolving SMH agenda. Although effective SMH includes many professional disciplines (see Flaherty et al., 1998), school psychologists bring a particular blend of skills and training that are ideal for leadership roles in this agenda. These skills include, but are not limited to, an understanding of child development, psycho-educational assessment, special education law, consultation methodology, program evaluation, and interventions at both the individual and systemic level. In the final section of this article, several actionable recommendations related to pre-service training, school-university-community partnerships, professional development, and public relations are provided to enhance school psychology's involvement and leadership in SMH.

Recommendation 1: Recruit Students With Interest in SMH Services and Foster Current Students' Motivation

Training programs should enhance recruitment of students with interest in the full continuum of SMH services while striving to build interest among current students. Program applicants and existing providers alike may be evaluated for such attributes using scales of readiness such as the Evidence Based Practice Attitude Scale (Aarons, 2004), observational ratings through role-played treatment or collaboration scenarios, and in-depth interviewing about ideal roles and responsibilities of school psychologists within an expanded SMH framework (Weist, 2003).

Recommendation 2: Intentional Integration of SMH Activities Into Field Experiences

Training programs must ensure that graduates have sufficient content knowledge and applied experiences to build their interest and confidence in delivering SMH services (Perfect & Morris, 2011). This likely requires significant changes to the courses and experiences school psychology

graduate training programs require and provide (Perfect & Morris, 2011). To promote competencies using methods beyond didactic courses, school psychology programs should provide field experiences or practicum courses that specifically include experience in all three tiers of services, including climate enhancement, enhancing team effectiveness, implementing preventive skill training groups, and providing evidence-based individual, group, and family therapy to students while under the supervision of a competent professional (Perfect & Morris, 2011). For this training to occur, more active involvement by school psychology training programs in identifying and recruiting practicum sites to ensure these opportunities will be required. It is likely that it will be difficult for programs to find competent supervisors (e.g., licensed, doctoral-level psychologists) engaged in SMH services, but program administrators should consider including other professionals engaged in SMH services as field supervisors and should seek to increase collaboration between university and field supervisors (Ross, Powell, & Elias, 2002).

Through increased collaboration, training programs can help facilitate improved understanding of the specific experiences their students need and design strategies for providing such experiences. At the University of South Carolina, the first and third author have collaborated with field supervisors of school and clinical–community psychology students to explicitly require and provide a continuum of SMH service opportunities. This initiative has recently been supported by the integration of a grant-funded research project into the practicum course. The research project, Student Emotional and Educational Development (SEED), is testing the feasibility and preliminary impact of an intervention package for middle and high school students with or at risk for developing mood disorders. The intervention is being delivered by advanced school and clinical–community psychology graduate students enrolled in the first author’s practicum course in collaboration with social work graduate students and child psychiatry medical residents. The inclusion of this research project as part of the students’ practicum experiences is providing them with needed interdisciplinary experience and training in specific evidence-based practices for the treatment of mood disorders, while benefiting the schools and the study through the services delivered by the trainees.

In addition, graduate training programs should ensure that students are aware of factors that may inhibit and/or facilitate their provision of SMH services to better prepare them for real-world practice. Students should be asked to discuss their observations of these factors in the field experiences, and trainers should help students generate solutions to current and future problems they may encounter following graduate school (Suldo et al., 2010).

Recommendation 3: Ensure That Content Courses Provide Sufficient Knowledge Needed to Provide Continuum of SMH Services

School psychology training programs are required to ensure that graduates are exposed to all domains of practice following completion of coursework and to be competent across domains following internship (Ysseldyke et al., 2006). Thus, training programs should compare their course requirements and objectives with the school psychology practice domains, paying particular attention to the mental health and social–emotional domain. Programs would benefit by improving or adding courses related to individual, small-group, and family interventions; crisis prevention and intervention; family-oriented prevention and intervention activities; psychopharmacology; and systems or organizational consultation (Perfect & Morris, 2011; Ross et al., 2002; Suldo et al., 2010).

Training programs should consider offering courses co-taught by a multidisciplinary team of faculty with students from a variety of specialties to provide collaborative experiences and increase prioritization of SMH services across education and mental health fields (Ross et al., 2002; Weist et al., 2005). As described previously, a practicum course taught by the first author integrates the SEED research project, which facilitates collaborative relationships with trainees from other

disciplines (i.e., social work and child psychiatry). As part of this training opportunity, all trainees participate in monthly meetings designed to help them learn more about one another's background and training experiences and then begin to work together in a collaborative, strength-focused manner.

Unfortunately, graduate training programs in school psychology already face a tight timeline when tasked with addressing the breadth of practice domains required by accreditation organizations, making the call for additional coursework a difficult plan to implement. This is especially the case for specialist degrees, such as the Education Specialist (Ed.S.), where trainees are afforded less training time than those in doctoral programs. Training programs should evaluate these issues individually, but the need for refined training may certainly indicate the need for further specialization in the training of tomorrow's school psychologists.

Recommendation 4: Encourage Areas of Specialization Related to SMH Prevention and Intervention Services

Just as one training program cannot realistically provide an adequate depth of training in all practice domains of school psychology, it is also important to acknowledge that one school psychologist simply cannot provide all the school psychology and SMH services indicated by a school's needs or described in this article. It is also true that there are areas in addition to SMH in which school psychologists should be competently practicing, including assessment, pediatric school psychology, and neuropsychology (Reynolds, 2011). For a more in-depth review of the range of services and practices promoted by professionals, see the NASP Model for Comprehensive and Integrated School Psychological Services illustrated in Figure 1 (NASP, 2010a). Given the sheer breadth of knowledge needed by school psychologists facing increasing demands for evidence-based services, professional organizations and governmental accrediting agencies should explore methods of providing specialization in targeted areas of practice, such as SMH prevention and intervention (Reynolds, 2011). The recommendation for areas of specialization is not new to the field of school psychology. Specialization in the area of school neuropsychology was first introduced in 1981 by Hynd and Obrzut and has long been recognized as common practice in academia (Reynolds, 2011). Advanced training in the area of SMH for school psychologists seeking professionally recognized specialization would likely improve the SMH workforce's overall competency and interest in providing expanded services. Likewise, hiring school psychologists with specialized knowledge in the area of SMH is likely to address the time and personnel constraints currently facing the field by more clearly assigning SMH responsibilities, including interventions and mental health services to build the social-emotional and life skills of youth, to highly qualified and devoted staff with minimal assessment caseloads.

Recommendation 5: School–University–Community Agencies Should Partner to Provide Training and Expand Services

A key theme in moving the SMH agenda forward is the advancement of school and university–community partnerships. Such partnerships have several important benefits to the school district, university, and/or community agency, including school and/or community-based learning for undergraduate and graduate students, sustained and enhanced organizational capacity, and staff and organizational development (Ross et al., 2002; Sandy & Holland, 2006). Community and school partners who participated in focus groups conducted by Sandy and Holland (2006) described the inclusion of college students in their settings as supporting initiatives that would have otherwise remained on the back burner and additionally providing staff with greater access to new information and research in the field. Further, when SMH practitioners become supervisors or college educators through university–school partnerships, higher quality pre-service field experiences are provided and

exposure to the fields of school psychology and SMH is increased (Community-Campus Partnership for Health, 2006; Perfect & Morris, 2011; Sandy & Holland, 2006).

Recommendation 6: Professional Organizations Should Emphasize Mental Health Prevention and Intervention Practices in Conferences and Training Programs

School psychologists have identified in-service professional development needs for effective SMH practice (Suldo et al., 2010). For example, Stoiber and Vanderwood (2008) surveyed practicing school psychologists and found their top priorities for professional development were classroom-based behavioral intervention, followed by therapeutic interventions, functional assessment and prevention, key realms of SMH practice. Continued professional development can be pursued in a variety of manners such as graduate courses at local universities and continuing education courses offered at the annual meetings of professional organizations such as NASP, the American Psychological Association, the American School Health Association, and the University of Maryland Center for School Mental Health's annual conference on advancing SMH (see <http://csmh.umaryland.edu>).

In addition to enhanced offerings related to SMH by these and other professional organizations, it is also necessary for the field to evaluate the effectiveness of current professional development practices and identify strategies for improvement. Traditional professional development practices have been widely criticized for not leading to changes in practice (Joyce & Showers, 2002). Thus, there is a need to enhance in-service training, to embrace principles of adult learning, experiential learning activities, mutual peer support, implementation support and coaching, and a view of intensive life-long learning (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Perfect & Morris, 2011; Weist, Stephan, et al., 2007).

Recommendation 7: School Districts Should Provide SMH Professional Development Opportunities

In-service trainings at the district level underscore the district's commitment to student mental health and reducing barriers to their learning, as well as sustaining effective SMH systems of service (Perfect & Morris, 2011). School districts should prioritize SMH competencies in their professional development opportunities and strive to provide effective professional development beyond traditional in-service meetings, such as group book studies, regularly scheduled supervision, coaching, collaboration, and re-occurring, in-depth, and experiential learning opportunities (e.g., a series of training sessions with opportunities for practice and feedback between meetings; Fixsen et al., 2005; Splett, 2012).

Recommendation 8: Initiate Public Relations Campaign Targeting School Staff, Families, and the Community Regarding SMH Services

In order to be seen as a mental health provider, visibility among and education of key stakeholders (e.g., school board members, school administrators, teachers, families, and community members) is essential (Harrison et al., 2004). School psychologists and other SMH providers should consider proactively providing in-services and/or educational materials to their colleagues, clients, and constituents. To make educators, administrators, decision-makers, families, and community members aware of the range of SMH services school psychologists can provide, these efforts should address the school psychologist's competency in and desire to provide a continuum of SMH services, the importance of these services and their link to academic outcomes, risk factors to identify students at risk for developing mental health concerns, and evidence-based prevention and intervention strategies (Harrison et al., 2004; Ross et al., 2002).

CONCLUSION

The interdisciplinary SMH field is showing progressive growth related to documented and increasingly recognized advantages in bringing mental health to youth “where they are.” School psychologists have played a key role in this field from its inception and are positioned to be in critical leadership roles. This article has focused on increasing such leadership by moving away from traditional constraints (e.g., excessive emphasis on assessment), by purposefully changing the culture of pre-service and in-service education and training, and through specific strategies to expand perspectives and training experiences within school psychology training programs. This discussion has been occurring for at least a decade (see Ross et al., 2002); as exemplified in this special issue, there is critical momentum for a significant enhancement in leadership by school psychologists in SMH.

REFERENCES

- Aarons, G. A. (2004). Mental health provider attitudes toward adoption of evidence-based practice: The evidence-based practice attitude scale (EBPAS). *Mental Health Services Research*, 6, 61–74. doi:10.1023/B:MHSR.0000024351.12294.65.
- Ball, A., Anderson-Butcher, D., Mellin, E. A., & Green, J. H. (2010). A cross-walk of professional competencies involved in expanded school mental health: An exploratory study. *School Mental Health*, 2, 114–124. doi:10.1007/s12310-010-9039-0
- Barrett, S., Eber, L., & Weist, M. D. (2009). An interconnected systems framework for school mental health and PBIS. National Technical Assistance Center for PBIS (Maryland site), funded by the Office of Special Education Programs, U.S. Department of Education. Retrieved from http://www.pbis.org/school/school_mental_health.aspx.
- Bramlett, R. K., Murphy, J. J., Johnson, J., Wallingsford, L., & Hall, J. D. (2002). Contemporary practices in school psychology: A national survey of roles and referral problems. *Psychology in the Schools*, 39, 327–335. doi:10.1002/pits.10022
- Briggs-Gowan, M. J., Horwitz, S., Schwab-Stone, M. E., Leventhal, J. M., & Leaf, P. J. (2000). Mental health in pediatric settings: Distribution of disorders and factors related to service use. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39, 841–849. doi:10.1097/00004583-200007000-00012
- Chorpita, B. F., & Daleiden, E. L. (2009). Mapping evidence-based treatments for children and adolescents: Application of the distillation and matching model to 615 treatments from 322 randomized trials. *Journal of Consulting & Clinical Psychology*, 77, 566–579. doi:10.1037/a0014565
- Clauss-Ehlers, C., Serpell, Z., & Weist, M. D. (n press). *Handbook of culturally responsive school mental health: Advancing research, training, practice, and policy*. New York, NY: Springer.
- Community-Campus Partnerships for Health. (2006). Principles of good community-campus partnerships. Retrieved from <http://depts.washington.edu/ccph/principles.html#principles>
- Curtis, M. J., Grier, J. E. C., & Hunley, S. A. (2003). The changing face of school psychology: Trends in data and projections for the future. *School Psychology Quarterly*, 18, 409–430. doi:10.1521/scpq.18.4.409.26999
- Curtis, M. J., Hunley, S. A., Walker, K. L., & Baker, A. C. (1999). Demographic characteristics and professional practices in school psychology. *School Psychology Review*, 28, 104–116.
- Del'Homme, M., Kasari, C., Forness, S., & Bagley, R. (1996). Prereferral intervention and students at risk for emotional and behavioral disorders. *Education and Treatment of Children*, 19, 272–285.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82, 405–432. doi:10.1111/j.1467-8624.2010.01564.x
- Eber, L., Sugai, G., Smith, C. R., & Scott, T. M. (2002). Wraparound and positive behavioral intervention and supports in the schools. *Journal of Emotional and Behavioral Disorders*, 10, 171–180. doi:10.1177/10634266020100030501
- Ehrhardt-Padgett, G. N., Hatzichristou, C., Kitson, J., & Meyers, J. (2004). Awakening to a new dawn: Perspectives of the future of school psychology. *School Psychology Review*, 33, 105–114. doi:10.1521/scpq.18.4.483.26994
- Fagan, T. K., & Wise, P. S. (2007). *School Psychology: Past, present, and future* (3rd ed.). Bethesda, MD: National Association of School Psychologists.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (FMIH Publication #231). Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network.
- Flaherty, L. T., Garrison, E. G., Waxman, R., Uris, P. F., Keys, S. G., Glass-Siegel, M., & Weist, M. D. (1998). Optimizing the roles of school mental health professionals. *Journal of School Health*, 68, 420–425. doi:10.1111/j.1746-1561.1998.tb06321.x

- Horness, S. R. (2005). The pursuit of evidence-based practice in special education for children with emotional or behavioral disorders. *Behavioral Disorders*, 30, 311–330.
- Foster, S., Rollefson, M., Doksum, T., Noonan, D., & Robinson, G. (2005). *School mental health services in the United States, 2002-2003*. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration.
- Freeman, R., Eber, L., Anderson, C., Irvin, L., Horner, R., Bounds, M., & Dunlap, G. (2006). Building inclusive school cultures using school-wide positive behavior support: Designing effective individual support systems for students with significant disabilities. *Research & Practice for Persons with Severe Disabilities*, 31, 4–17. doi:10.2511/rpsd.31.1.4
- Friedrich, A. (2010). School-based mental health services: A national survey of school psychologists' practices and perceptions. Retrieved from <http://scholarcommons.usf.edu/etd/3549>.
- Gordon, R. S. (1983). An operational classification of disease prevention. *Public Health Reports*, 98, 107–109.
- Gresham, F. M. (2004). Current status and future directions of school-based behavioral interventions. *School Psychology Review*, 33, 326–343.
- Gresham, F. M. (2008). Best practices in diagnosis in a multitier problem-solving approach. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 281-294). Bethesda, MD: National Association of School Psychologists.
- Harrison, P. L., Cummings, J. A., Dawson, M., Short, R. J., Gorin, S., & Palmoares, R. (2004). Responding to the needs of children, families, and schools: The 2002 Multisite Conference on the Future of School Psychology. *School Psychology Review*, 33, 12-33. doi:10.1521/scpq.18.4.358.27001
- Hawken, L. S. (2006). School psychologists as leaders in the implementation of a targeted intervention. *School Psychology Quarterly*, 21, 91–111. doi:10.1521/scpq.2006.21.1.91
- Hawken, L. S., Adolphson, S. L., MacLeod, K. S., & Schumann, J. (2009). Secondary-tier interventions and supports. In W. Sailor, G. Dunlap, G. Sugai, & R. H. Horner (Eds.), *Handbook of positive behavior support* (pp. 395–420). New York, NY: Springer. doi:10.1007/978-0-387-09632-2_17
- Hill, L. G., Lochman, J. E., Coie, J. D., Greenberg, M. T., & Conduct Problems Prevention Research Group. (2004). Effectiveness of early screening for externalizing problems: Issues of screening accuracy and utility. *Journal of Consulting and Clinical Psychology*, 72, 809–820. doi:10.1037/0022-006X.72.5.809
- Hoagwood, K., & Johnson, J. (2003). School psychology: A public health framework I. From evidence-based practices to evidence-based policies. *Journal of School Psychology*, 41, 3–21. doi:10.1016/S0022-4405(02)00141-3
- Hoagwood, K., Kratochwill, T., Kerker, B., & Olin, S. (2005). Integrating measurement of education and mental health outcomes for school mental health services: A research review. Unpublished manuscript, Columbia University: New York, NY.
- Hoge, M. A., Morris, J. A., Daniels, A. S., Huey, L. Y., Stuart, G. W., Adams, N., Dodge, J. M. (2005). Report of recommendations: The Annapolis coalition conference on behavioral health work force competencies. *Administration & Policy in Mental Health*, 32, 651–663. doi:10.1007/s10488-005-3267-x
- Horner, R.H., Sugai, G., & Anderson, C.M. (2010). Examining the evidence base for school-wide positive behavior support. *Focus on Exceptional Children*, 42, 1–16.
- Hosp, J. L., & Reschly, D. J. (2002). Regional differences in school psychology practice. *School Psychology Review*, 31, 11–29.
- Hussey, D. L., & Guo, S. (2003). Measuring behavior change in young children receiving intensive school-based mental health services. *Journal of Community Psychology*, 31, 629–639. doi:10.1002/jcop.10074
- Hynd, G., & Obrzut, J. (1981). School neuropsychology. *Journal of School Psychology*, 19, 45–50. doi:10.1016/0022-4405(81)90006-6
- Joyce, B., & Showers, B. (2002). *Student achievement through staff development* (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Kern, L., Hilt-Panahon, A., & Sokol, N. G. (2009). Further examining the triangle tip: Improving services for students with behavioral and emotional needs. *Psychology in the Schools*, 46, 18–32. doi:10.1002/pits.20351
- Lochman, J. E., & the Conduct Problems Prevention Research Group. (1995). Screening of child behavior problems for prevention programs at school entry. *Journal of Consulting and Clinical Psychology*, 63, 549–559. doi:10.1037/0022-006X.63.4.549
- Lloyd, J. W., Kauffman, J. M., Landrum, T. J., & Roe, D. L. (1991). Why do teachers refer pupils for special education? An analysis of referral records. *Exceptionality*, 2, 115–126. doi:10.1080/09362839109524774
- Markle, B., Splett, J. W., Maras, M. A., & Weston, K. J. (in press). Effective school teams: Benefits, barriers, and best practices. In M. D. Weist, N. Lever, C. Bradshaw, & J. Owens (Eds.), *Handbook of school mental health: Research, training, practice, and policy* (2nd ed.). New York, NY: Springer.
- McIntosh, K., Campbell, A. L., Carter, D. R., & Zumbo, B. D. (2009). Concurrent validity of office discipline referrals and cut points used in school-wide positive behavior support. *Behavioral Disorders*, 34, 100–113.

- Mellin, E. A., Anderson-Butcher, D., & Bronstein, L. (2011). Strengthening interprofessional team collaboration: Potential roles for school mental health professionals. *Advances in School Mental Health Promotion*, 4, 51–61. doi:10.1080/1754730X.2011.9715629
- Merikangas, K. R., He, J. P., Brody, D., Fisher, P. W., Bourdon, K., & Koretz, D. S. (2010). Prevalence and treatment of mental disorders among US children in the 2001-2004 NIMHES. *Pediatrics*, 125, 75–81. doi:10.1542/peds.2008-2598
- Meyers, A. B., & Swerdlik, M. E. (2003). School-based health centers: Opportunities and challenges for school psychologists. *Psychology in the Schools*, 40, 253–264. doi:10.1002/pits.10085
- Meyers, J., Meyers, A. B., & Grogg, K. (2004). Prevention through consultation: A model to guide future developments in the field of school psychology. *Journal of Educational and Psychological Consultation*, 15, 257–276. doi:10.1080/10474412.2004.9669517
- Nastasi, B. K. (2004). Mental health promotion. In R. Brown (Ed.), *Handbook of pediatric psychology in school settings*. Mahwah, NJ: Erlbaum.
- National Association of School Psychologists. (2010a). Model for comprehensive and integrated school psychological services. Retrieved from http://www.nasponline.org/standards/2010standards/2_Practice_Model.pdf
- National Association of School Psychologists. (2010b). Standards for graduate preparation of school psychologists. Retrieved from http://www.nasponline.org/standards/2010standards/1_Graduate_Preparation.pdf
- National Association of School Psychologists. (2010c). Standards for the credentialing of school psychologists. Retrieved from http://www.nasponline.org/standards/2010standards/2_Credentialing_Standards.pdf
- National Center on Response to Intervention. (2010, March). Essential components of RTI – a closer look at response to intervention. Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Response to Intervention.
- Newell, M. L., Nastasi, B. K., Hatzichristou, C., Jones, J. M., Schanding, G. T., Jr., & Yetter, G. (2010). Evidence on multicultural training in school psychology: Recommendations for future directions. *School Psychology Quarterly*, 25, 249–278. doi:10.1037/a0021542
- Noltemeyer, A., & McLaughlin, C. L. (2011). School psychology's Blueprint III: A survey of knowledge, use, and competence. *School Psychology Forum: Research in Practice*, 5, 74–86.
- O'Connell, M. E., Boat, T., & Warner, K. E. (Eds.). (2009). *Preventing mental, emotional and behavioral disorders among young people: Progress and possibilities*. Washington, DC: National Academies Press.
- Perfect, M. M., & Morris, R. J. (2011). Delivering school-based mental health services by school psychologists: Education, training, and ethical issues. *Psychology in the Schools*, 48, 1049–1063. doi:10.1002/pits.20612
- Quinn, K. P., & Lee, V. (2007). The wraparound approach for students with emotional and behavioral disorders: Opportunities for school psychologists. *Psychology in the Schools*, 44, 101–111. doi:10.1002/pits.20209
- Reinke, W. M., Splett, J. W., Robeson, E. N., & Offutt, C. (2009). Combining school and family interventions for the prevention and early intervention of disruptive behavior problems in children: A public health perspective. *Psychology in the Schools*, 46, 33–43. doi:10.1002/pits.20352.
- Reschly, D. J. (2000). The present and future status of school psychology in the United States. *School Psychology Review*, 29, 507–522.
- Reynolds, C. R. (2011). Perspectives on specialization in school psychology training and practice. *Psychology in the Schools*, 48, 922–930. doi:10.1002/pits.20598
- Ross, M. R., Powell, S. R., & Elias, M. J. (2002). New roles for school psychologists: Addressing the social and emotional learning needs of students. *School Psychology Review*, 31, 43–52.
- Sandy, M., & Holland, B. (2006). Different worlds and common ground: Community partner perspectives in campus-community partnerships. *Michigan Journal of Community Service Learning*, 13, 30–43.
- Severson, H. H., Walker, H. M., Hope-Doolittle, J., Kratochwill, T. R., & Gresham, F. M. (2007). Proactive, early screening to detect behaviorally at-risk students: Issues, approaches, emerging innovations, and professional practices. *Journal of School Psychology*, 45, 193–223. doi:10.1016/j.jsp.2006.11.003
- Sheridan, S. M., & Gutkin, T. B. (2000). The ecology of school psychology: Examining and changing our paradigm for the 21st century. *School Psychology Review*, 29, 485–501.
- Splett, J. W. (2012). Support system models of professional development to create lasting and systemic school improvements. *The Community Psychologist*, 45, 26–29.
- Splett, J. W., & Maras, M. A. (2011). Closing the gap in school mental health: A community-centered model for school psychology. *Psychology in the Schools*, 48, 385–99. doi:10.1002/pits.20561
- Stoiber, K. C., & Vanderwood, M. L. (2008). Traditional assessment, consultation, and intervention practices: Urban school psychologists' use, importance, and competence ratings. *Journal of Educational and Psychological Consultation*, 18, 264–292. doi:10.1080/10474410802269164
- Suldo, S. M., Friedrich, A., & Michalowski, J. (2010). Personal and system-level factors that limit and facilitate school psychologists' involvement in school-based mental health services. *Psychology in the Schools*, 47, 354–373. doi:10.1002/pits.20475

- Turnbull, A., Edmonson, H., Griggs, P., Wickham, D., Sailor, W., Freeman, R., Warren, J. (2002). A blueprint for schoolwide positive behavior support: Implementation of three components. *Exceptional Children*, 68, 377–402.
- Walker, H. M., Kavanagh, K., Stiller, B., Golly, A., Severson, H. H., & Feil, E. G. (1998). First step to success: An early intervention approach for preventing school failure. *Journal of Emotional Behavior Disorders*, 4, 66–80. doi:10.1177/106342669800600201
- Weist, M. D. (2003). Promoting paradigmatic change in child and adolescent mental health and schools. *School Psychology Review*, 32, 336–341.
- Weist, M. D., & Murray, M. (2007). Advancing school mental health promotion globally. *Advances in School Mental Health Promotion*, 1 [Inaugural Issue], 2–12. doi:10.1080/1754730X.2008.9715740.
- Weist, M. D., Rubin, M. R., Moore, E., Adelsheim, S., & Wrobel, G. (2007). Mental health screening in schools. *Journal of School Health*, 77, 53–58. doi:10.1111/j.1746-1561.2007.00167.x
- Weist, M. D., Sanders, M. A., Walrath, C., Link, B., Nabors, L., Adelsheim, S., Carrillo, K. (2005). Developing principles for best practice in expanded school mental health. *Journal of Youth and Adolescence*, 34, 7–13. doi:10.1007/s10964-005-1331-1
- Weist, M. D., Stephan, S., Lever, N., Moore, E., Flaspohler, P., Maras, M., Cosgrove, T. J. (2007). Quality and school mental health. In S. Evans, M. Weist, & Z. Serpell (Eds.), *Advances in school-based mental health interventions* (pp. 4:1–4:14). New York, NY: Civic Research Institute.
- Yergat, J. D. (2011). The augmented efficacy of PBS implementation (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3468207).
- Ysseldyke, J., Burns, M., Dawson, P., Kelley, B., Morrison, D., Ortiz, S., . . . Telzrow, C. (2006). *School psychology: A blueprint for training and practice III*. Bethesda, MD: National Association of School Psychologists.

Copyright of Psychology in the Schools is the property of John Wiley & Sons, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

Some Cultural Considerations

HAVING described the chief components of a healthy personality and some of the ways in which its development can be affected for good or ill, we turn now to consider the implications of this material for the conduct of the social institutions that have most to do with children's welfare—the family, the church, the school, and so on. In the analyses of the work of these institutions we shall be putting forth not so much facts as ideas for consideration. We shall try to show what opportunities the various social institutions provide for promoting children's welfare and how service is given, or might be given, to this end.

Of great pertinence to promotion of health of personality is a body of facts and ideas from the field of cultural anthropology that has so far not been touched upon. This material has to do with the great variety of cultures that co-exist in the United States and with the part that culture plays in making one child different from another. These are facts of great importance for the work of teachers, clergymen, doctors, social workers, and the like, so we review them briefly here in order to enrich the analysis of the work of the social institutions.

What Is Culture?

There is no such thing as *the* environment of *the* American child. We all know that, broadly speaking, a Southerner has a pattern of family relationships, an attitude toward a settled existence, toward the land, toward the stranger, toward efficiency that is different from the patterns of a person from the North or the Midwest. Again, the functioning farm provides a different background of experience from that of the suburb or the city street. Within the city, there is difference occasioned by the income bracket of the family; and within the income bracket, there is the pattern that is affected by the occupation of the father. Miners and sanitation workers and college instructors have approximately the same income, but, as a rule, they provide different designs of living for their children.

Then there are differences that have little to do with geographic factors or with income bracket or occupation. There are groups in this country that have strongly patterned ways of life that run counter to the general "American" culture, and that they maintain because

they regard them as the only possible or the only desirable way to live. There are such groups in the southern Highlands, among the descendants of the first white settlers of New Mexico, and elsewhere throughout the country. Such, too, are the many Indian tribes, who value their own culture above the culture of the white people who are their neighbors, and the peoples of Hawaii, and other islands. In addition, there are many groups of people in the United States who recently arrived from abroad. While admiring American technology and progress, these people often cling, deliberately or unconsciously, to the attitudes and ways of their parents, rearing their children according to their own upbringing, instilling in them the values of their own culture.

When children from such different backgrounds go to school together, they bring to the classroom their different backgrounds of experience, different tools for understanding, and different techniques in human relations, even though, superficially, they appear much alike. The acts and precepts of the teacher may have different meanings for them, meanings that are often different from what the teacher intended. For example, a white teacher, thinking to encourage and reward a Hopi Indian girl for her neat hair, praised her publicly as the girl with the most careful mother; but the girl wept in distress, because for a Hopi to be singled out is a terrible ordeal.

Then, too, although he speaks English, the words a child hears and reads may fit another frame of reference, and may, therefore, have no meaning. A study of American-born children of Chinese parents shows, for example, that to them the word "fair" means something that applies to the weather, or to a face, or to a circus; never to interpersonal behavior. Yet these were children who, in school, on the radio, in their reading, must have daily encountered this word in its application to fair dealings. What did they think when a teacher or another child said, "It isn't fair"? Specific cultural backgrounds give rise to specific interpretations of experience, specific conceptions of what constitutes good housing, a good mother, health, good food, or a dream come true.

Accordingly, we cannot treat children as if they all felt and evaluated and interpreted and reacted to experience in the same way. Neither can we treat great differences in reaction and attitude as if they were always due to individual peculiarity. When a Navajo boy calls a robin's egg "green" he is not color blind or ignorant; he is classifying colors as his culture classifies them. When a Mexican boy said he had an angel whispering in one ear and a devil in another, he was neither peculiar nor emotionally disturbed nor even poetic; he was voicing his culture's expression of inner conflict.

Within a cultural group there are individual differences, of course. Not all Navajo and Mexican boys and girls are alike, any more alike

than children of any other background. But there are certain basic regularities that are peculiar to each culture. They are the way in which that culture structures the universe and envisions the individual's place within it. The same basic realities, the same nature, the same biological drives are apprehended and channelled differently by the people of different cultures.

Tests of intelligence or perception or emotion or proficiency or personality have not yet been devised that can tell us what human nature is like, unaffected by culture. In some cultures time limits cannot be used, since children have no experience of them or are blocked by them. In others, children refuse to answer the questions asked, since it would be disrespectful to show a knowledge superior to that of the investigator, who would surely not be asking questions to which he undoubtedly knew the answer. In Samoa children's responses tended to take the form of the most artistic solution rather than of the most "efficient."

Neither can we observe human nature before it has been affected by culture, since the infant at birth has already been so affected. His surroundings at birth are culturally patterned. Even the birth process itself has been affected by the culturally derived attitude of the mother toward children, toward labor, toward childbirth, as well as by the kind of assistance and companionship she has at this time. The child's first experience of the world outside the womb is affected by culture. Is he weighed and measured by competent but unloving hands, wrapped in cloth and bedded alone in a labelled box? Is he cuddled naked against bare skin, touched lovingly and given the breast at the slightest sign of discomfort? Even a day-old infant does not present a picture of unadulterated human nature.

Culture is powerful and pervasive, changing the expression of our biological drives, affecting our thinking, our emotions, and our perceptions. For example, there are distinct patterns of aggression, sibling rivalry, privacy, jealousy, loving, frustration, play, participation in the different cultures. What was there before culture entered the picture? Are human beings jealous by nature? There are societies where there is no evidence of jealousy. There are some polygynous societies where co-wives exhibit so much jealousy that the man has to apportion himself with care and tact. There are other polygynous societies where an only wife will taunt and nag her husband until he brings her a co-wife, with whom she then lives amicably. Is jealousy an inborn trait, which some cultures suppress effectively? Or is it a potentiality, fostered by some, atrophied by other cultures?

Again, there are cultures, such as our own, that take sibling rivalry for granted and proceed to make it into a constructive force, using it as a base for competitive fair play or for competitive achievement. There are other cultures which present the arrival of the new

infant in such a way that it is not a situation where one mother is shared by two infants but is rather the sharing of an exciting experience by mother and "knee-baby." Such cultures do not accept sibling rivalry as a matter of course. To what extent this rivalry is a product of, or is fostered by, the particular culture is still an unanswered question.

Love, too, is affected by culture. In our own culture we believe in channelling and concentrating love into an intense emotion. The Hopi, on the other hand, do not encourage intensive attachment to parents and identification with them. They say that a child must learn to love more diffusely, since there are so many clan "mothers" and "fathers" for a child to love.

Even biological realities, such as hunger and the drive to eat, are channelled and transformed by culture; how else could we explain the tremendous variety of their appearance? In some societies people feel hungry twice a day, in others three or even four or five times. In some societies, people are hungry at breakfast time, in others they are not. What I will feel like eating depends on my culture. I find it natural to be hungry for bacon at 7:30 a.m. but unnatural to be hungry for beef stew at that time. I like clam chowder, but I would find it monstrous to eat it at the end of a dinner; strawberry shortcake may lie more heavily on a full stomach, yet I find it appropriate to end a heavy meal with it.

There is only culture behind convictions and tastes of this sort; neither reason or science, biology or human nature. The drive is merely for the satisfaction of hunger; culture tells me when to be hungry, and how to still my hunger. It may also keep me from eating when I am hungry, so as not to spoil my appetite, or so as to preserve my figure. It will prepare me to enjoy my food as one of the pleasures of life, or it may present the meal to me as a balance of nutrients. According to my culture, I will be eating because the food is good, or because it is good for me, or because it represents to me my mother's love and care for me, or because it is a family ritual, or because one must eat to live.

With this great variety of motivation, sensation, behavior, it is never safe to predict how an individual will react, unless his cultural background is known. For example, pearl-traders assumed that it was a human trait to be motivated by the hope of reward. But when they went to the Trobriand Islands, they could not persuade the natives to dive, either for pay or for desirable articles. The natives were industrious and they would dive for their own purposes. They would give their children pearls to play with but they would not sell them. It appears, then, that reward as motive is a cultural phenomenon. Actually the pearl-traders managed to teach this motive to the Trobrianders, though not with unqualified success.

People not only bring a different background of experience to bear in interpreting and reacting to a new situation; more than this, the same experience affects people of different cultures differently. To a member of one group within the American scene to share a bed with a sister into adulthood is a continual violation of privacy. And, in fact, it is a generally accepted American idea that this is an inadequate sleeping arrangement. There are groups, however, that think this is an arrangement to be preferred. Again, adequacy of housing means for us the ability of a family of parents and children to live alone. In fact, we plan our public housing in such a way that three generations cannot live together. Families of Mexican Americans, however, moved out of a Midwest housing project, because for them such housing was inadequate. To them adequacy meant a three-generation household.

The particular structuring of the experience, again, has a specific effect on the individual. In our own culture, we tend to see ourselves in opposition to circumstances. We pit ourselves against nature; we fight the elements and try to control them. Each experience is a problem to solve, a difficulty to overcome, an obstacle to surmount, a conflict to resolve, a fight to win, a situation to master. To the Hopi Indian the same situations are occasions for cooperation. He conceives of himself as working cooperatively with the entire universe. He helps nature. He does not set out to subjugate and tame a wilderness; he "helps" it reach the point where it can grow corn. He works *with* time, not *against* it. He may be doing exactly the same things as a white person does; but the experience is actually different and has a different formative effect on his personality.

Culture has coherence and pervasiveness. By this we mean that culture is not a hodgepodge of customs but something rather like a system or a design. Its various parts, queer and incomprehensible when set against another background, make sense against the culture of which they are a part. Conversely, the basic assumptions and formulations of a culture are present in and expressed through a variety of behavior and attitudes. For example, the children of the Hopi farmers, who "help" nature grow the corn, took to basketball enthusiastically but could not be taught to keep score. Competition did not interest them but they loved the teamwork. Our own children, trained to value fair conflict, need the competitive score to give incentive and spice to the game. They can be taught cooperation, teamwork, only incidentally and in a framework of competition.

Knowledge of the over-all culture enables us to see acts and attitudes as valid and understandable. It can help us to modify our own dealings, so that they can be effective and meaningful. We can be good neighbors, accepting and respecting other ways of life. We can distinguish between personal peculiarities and culturally patterned

behavior. Further, with an awareness of the cultural factor in thought and policy-making and evaluation, we can have insight into our own motivations and assumptions. When we see that our own is not the only possible or valid way, we can learn to view other ways of life not as deviant but as of equal dignity and validity. Self-awareness is of prime importance in happy interpersonal relationships, and awareness of our culture is essential for self-awareness.

The cultures to be found within the American scene are much too numerous and complicated to be described here. Instead we shall give a few specific instances of the kinds of differences a few cultures evidence in training children in values and choices. This is not an exhaustive survey, nor a systematic one. It is rather a group of illustrations suggesting the range of situations that are affected by cultural background.

We hope to show through this material the importance of cultural background in any kind of communication. When there is no common background, even the words used in a conversation may carry a different meaning for speaker and hearer. Knowledge of cultural background is essential for effective individual and group relations, for recognizing problems and meeting needs, for understanding situations and dealing constructively with them. We also hope to provide here the basis for drawing implications and for raising questions; and we hope to stimulate workers who encounter such situations daily to make a note of variations in structuring and evaluating experience. Our knowledge of the cultures of the United States is very limited. and any addition to it will be of great use.

There is a danger in this presentation. The illustrations are given with a minimum of context for the sake of delimitation and focus. But attitudes and customs and personality traits from other cultures are bound to appear as queer, or romantic, or reprehensible, because, placed unconsciously by the reader within the framework of "American" culture, they do not make sense. They derive their validity from the culture from which they have been torn to serve as examples. To show how the totality of a culture gives sense and validity to its component traits requires a much longer description than we have room for here, however, so these brief examples will have to suffice.

The Meaning of Good Behavior

When is a child a good child? The Columbia University Research Project in Contemporary Culture investigated this question through interviewing parents and children. Four cultures were studied—Chinese, Eastern European Jewish, Syrian, and Czech. These cultures differed greatly, but in this they agreed: that being

good meant following the dictates of parents and other adults; it did not mean obedience to impersonal, abstract rules of conduct. A child was good for the sake of the parents or in obedience to the parents. He learned how to be good through listening to the parents, or in some cases, to the teacher. Abstract law or impersonal regulations seem to be incidental, at best. A child from such a culture is not letting his teacher down when he breaks a school regulation; the regulation is impersonal and has nothing to do with the teacher. When the teacher herself asks him to do or refrain from doing, the request makes sense because it is personal, falls into the pattern of deference, and evokes his loyalty as well.

Specifically, the pattern of obedience differs in the four cultures under consideration. The Czechs believe in "listening" rather than "obedience." Listening means that you get adult guidance. Whether the child accepts this or not, however, depends on whether, after appraisal, he finds it reasonable and valid. Children must develop independent judgment, and this means they must not be too obedient. They must feel free to question the authority of parents; if they do not, it means they do not trust them enough, and that they treat them with the courtesy accorded to strangers.

The East European Jews believe in utmost obedience. Parents and children who were interviewed said that the only way to be good was to obey without question. It is right to study and practice the piano, to stay out of the street and to go to bed early; this is what the good child does; and he learns to act this way through obeying the parents. Conversely, talking back was, according to the children, "a crime" and "one of the worst things I ever did."

For the Syrian children, also, talking back was very bad; one of them said he would be thrown out of the house if he talked back. The worst child in the class was one who answered back. Syrian children are trained to do everything, in so far as possible, not on their own initiative but in obedience to parents or other adults. If they are offered food when out visiting, for example, even teen-agers will wait for a nod from a parent before they accept.

The Chinese child also learns to obey without question. Obedience, said the mothers, is the first thing they teach their children beginning at the age of two. Through obedience you learn how to act right, and most of all you show filiality, which is very important. To be good is to be filial. One mother said she told her children that because of her unfilial conduct in childhood, her parents had died young.

Children do not have to learn to be good, they are born good; but they have to learn to act right. Adults can guide them in right conduct, but children, on the whole, lean to waywardness. Therefore, playing in the streets was frowned upon by all, and keeping the chil-

dren away from bad companions was a main function of all parents. Except for the Czechs, the consensus was that the child who behaved right is a good child. What goes into the making of good behavior differed, however. For the East European Jews, doing one's school-work was of paramount importance, taking precedence even over helping the mother in the care of the house or of younger siblings. The good child associates only with children approved by his parents. Children who were asked to make a picture of a good child portrayed "a girl helping her mother with the housework," "a boy doing what his mother is telling him to do," and children following the proper line of beneficence: "a girl handing a lollipop to a baby," "a boy helping a lady get off the bus."

The good Chinese child, in addition to being obedient and filial, is reserved, causes little trouble, and is frugal. For the Chinese, frugality is a virtue, not for the sake of saving, but as self-denial. A girl who refused a proffered piece of candy, not because it would take away her appetite or spoil her figure—"American" reasons—but merely because it cost money was highly praised to the interviewer. The good Syrian child, in addition to being extremely obedient, is industrious and chooses work which is hard. He never does anything to bring disgrace to his family, and he performs deeds which bring honor.

It is not possible to be too good or too obedient in these three groups. Syrian children, born and brought up in the United States, did not react to the term "goody-goody" or "sissy" except as someone "stuckup." They praised as the "best child" in class one who was quiet, helped the teacher, did his work, and got good marks.

The Czechs do not define the good child by good behavior. Every good child contains some bad, otherwise he is sick or stupid. Every bad child has some good or can become good. "Wherever there is shadow, there is light."

Do children feel guilty when they have been "bad"? Here again there are differences among the four cultures. Czech children found it hard to remember when they had been "bad." The children of the immigrant Jews from Eastern Europe could describe such occasions vividly. Syrian children, asked to define the word "guilty," described a courtroom scene. For the Chinese children, guilt was equivalent to worry over results of bad behavior or shame at having such behavior exposed.

"Bad" behavior brings shame to Czech children but the shame does not seem to be particularly potent. For the Chinese, bad behavior itself does not bring shame; but to have a misdeed or a mistake or a misfortune witnessed by outsiders brings a strong feeling of shame. Chinese children mentioned as sources of shame such things as to break a dish when visiting, to do something bad and have teacher

see it. Shame for this group is devastating. A Chinese student was badly shaken for days because, when there was some delay in his registration, someone said to him politely, "What a shame!" For the Syrian children, also, shame came from having a misdeed or a misfortune witnessed—such as wearing odd socks and having someone remark it. Shame also meant diffidence and bashfulness for these children.

Incentives to Good Behavior

In "American" culture, reward is assumed to be a prime motivation for conduct in all aspects of life, as, for example, in industry and in education. It has a prominent place also in the bringing up of children. Good conduct is rewarded, and conversely, reward is held out as an incentive to good behavior, to exertion, to learning. Parents and children of other cultures often call reward "bribery." Presents from parents are not rewards but merely gifts showing affection; Czech parents give them frequently to their children. Or they may be an established aspect of a ceremonial occasion, like the Hannukah gifts which the Eastern European Jewish children receive.

In the culture of the Eastern European Jews, reward has no place in the school because it actually degrades the learning. "Study is the duty, the privilege, and the joy of the *shtetl* Jew. Young and old, rich and poor, business men and manual workers, devote themselves to it." The children of parents with this background do not need extraneous inducements to study. The girls have been lulled to sleep with lullabies promising a learned bridegroom; the boys with songs such as "Sleep soundly at night and learn Tora by day," or "My Yankele shall learn the Law." At home they have listened to interminable learned discussions carried on among their elders for sheer enjoyment.

Learning and study were mentioned by the Jewish children interviewed as morally good. The first thing they mentioned about the girl they considered the worst child in the class was that she was backward in school work. These children, as well as children of Czech and Chinese parents, insisted, to a greater or lesser extent, that a good child was one who did his school work. These are children who think that education and literacy are extremely important, and good in themselves. In introducing extraneous inducements for study, we are actually displacing the children's motivation and their focus on study as good in itself.

Praise also has an important place in our cultural scheme, and we assume that it is necessary as encouragement for good conduct and in the learning process. At times our praise is so excessive as to appear condescending; the mother seems surprised that her child

actually managed to accomplish what he did. In other cultures, the mother's casual assumption that the child can and will fulfill his role appears to take the place of praise.

Among the Chinese, praise, in our sense, is not given, but a mother will "compliment" her child by saying in a special voice, "I am happy." Conversely, she will teach a two-year-old the cultural tenets by saying gently, "Mama does not like that." To do right is to do as Mama says, and "praise" is to inform the child that his mother is happy. And this is the form in which the "compliment" is acceptable. To say to a Chinese, "I am proud of you," is to introduce a factor that is reprehensible according to his culture. "You must never be proud of anything," said a Chinese child, "even if you are Columbus and you have just discovered America."

Among the immigrant Jews from Eastern Europe, a mother does not praise a child to his face; she will, however, tell everybody else how good he is. For the Czechs, on the other hand, praise is important, but to have meaning for the Czech child it must be interpersonally phrased. "That is a well-done job" does not appear to have much meaning. A mother will say in praise, "You behaved well, I am proud of you," or "I am glad," or "I can trust you." The incentive seems to be not to win praise but to please the mother. A Czech mother sings to her baby, "Eat for me, sleep for me, otherwise you won't grow up to be a healthy, strong boy."

The usual American attitude toward punishment is that it should be used as a negative incentive and only when reward and praise have failed. Other cultures, which hold that to reward good behavior or effective learning would be degrading, may give, nevertheless, an important place to punishment. The Chinese give physical punishment when reasoning has failed. Their children said that their punishment was deserved and described as good those parents who "punish and teach." Bad parents, they said, are those who "let children do what they like." The children of the Jewish immigrants from Eastern Europe also believed that they deserved the punishment they got and said they planned to punish their own children.

In contrast, the Czechs who were interviewed had no use for punishment. Parents said, "I would be punishing myself," and, "If we have to punish, it is that we ourselves have failed in educating," and, "Spanking makes children worse." Preferably they discuss the children's misdeeds with them and reason with them. Understanding and sympathy, not punishment, figure in the definition of good and bad parents; a lack of these, not spoiling, is what makes a child bad.

The kind of punishment preferred by the parents of the different groups and dreaded by the children varies from culture to culture—as does the way it is given. A Czech boy of six, consulted by his mother on how she should punish his misdemeanor, suggested spank-

ing immediately. Yet when it was finally decided that he should merely ask the mother's pardon, he broke into tears. The mother wept with him, and they both cried themselves to sleep where they sat together on the sofa. The Chinese parent will give hard physical punishment, but this is often in the midst of a sympathizing family group. The Chinese child may cry with his pain, and in fact must do so if he is to avoid further punishment; to cry means to show yielding. Punishment is truly bitter before outsiders, who do not sustain with sympathy and, in addition, mortify through witnessing.

The Jews from Eastern Europe use deprivation most commonly, and here we find it in its most stringent form. The punishment most dreaded by the children is when the mother deprives them of herself, when she withdraws and looks at them in a culturally recognized way, "out of the bottoms of the eyes." At school, these children were ready to undergo any punishment rather than have the mother be informed of their misdeed. Yet this punishment also, dreaded as it is, fitted into a background of absolute belongingness to a unit that will never relinquish its own, however they err. It is chastisement, not rejection.

Responsibility

Cultures vary in the responsibility allowed to children. In "American" culture, the child is protected from responsibility, partly because this is supposed to be too strenuous and burdensome for him, partly because we associate it with anxiety and the so-called realities of life from which the child must be spared. In addition, the child himself is held to be inadequate to undertake a responsible role, and society therefore is not willing to expose itself to the results of his responsible undertakings. The child is given errands to run and chores to perform; but, in general, he does not initiate or plan or organize these undertakings, and he is not responsible for the overall result. The mother may ask her daughter to help her in cooking but does not as a rule turn over to her the planning of the meal; if she sends her to market, she does not leave the choice of cuts of meat to her. This is the general "American" pattern, though it varies according to dictates of necessity and according to differences of cultural background.

Because of this general pattern, schools and various youth organizations have undertaken the teaching of responsibility. Their task is difficult because the community will not expose itself to the results of the children's undertakings. Therefore, projects for teaching responsibility have to be artificially contrived so that the results can remain within the walls of the school. The schools have also set out to persuade parents to teach responsibility in the home. But parents of variant cultures often have not needed to be urged to do so.

For example, when a lecturer asked mothers in the Cumberland region to contrive situations through which their children could gradually be taught responsibility, the mothers were bewildered. They had been assigning areas of work and responsibility to their children before they were five, depending on them to such an extent that they did not even check on the result of the child's work. If the child was ill or absent, the day's work was disrupted. These people, moreover, did not think of responsibility as burdensome or as distinct from work itself. Work and responsibility for them went together, and their children took on their responsible role as a matter of course, and found enjoyment in it.

At the other extreme is the culture of the Jewish immigrants from Eastern Europe. The mother here confines her daughter to the role of unskilled assistant. She will give her no responsibility whatever and often does not even like to have her in the kitchen when she is working there. One of the children from this group, when asked to write a story about the worst thing a child could do, wrote a phantasy of a girl who, when her parents were absent, tried to bake a batch of cookies on her own initiative. As a result, she caused much damage through various accidents, ending up by setting the kitchen on fire. She had reached for forbidden fruit and brought on catastrophe.

The Value of Schooling

The place of schooling and formal education also varies among the different cultures in the American scene. There are groups, such as the Italians, where it is not a calamity when a child shows no interest in his studies. He can be trained in other ways, without bringing grief to the family. And there is the culture of the Eastern European Jews in which education has a paramount place. Among these people, parents may push a child into learning to read and write at the age of three, and children will start music lessons at five or six and be made to practice through undeviating obedience.

It would be difficult to overestimate the importance of formal education in this culture. Studying itself appears to be a morally good act and to mean obedience of the first order. However, it is also sheer joy; little boys interviewed looked forward to the courses they could take when they went to college. All the boys of nine or over who were interviewed said that they were training for a profession, to be a lawyer or doctor or professor; they were not merely getting educated. The girls were training to be teachers or nurses or were preparing for a musical career. Education was envisaged as a long process, and they saw themselves going on to the very end. All the parents interviewed, whatever their own educational background or their financial resources, took it for granted that their children would go to college or at least have a musical career.

In none of the other cultures studied under the Columbia University Research Project did education have quite such an overwhelming place. School achievement figured as important for Czech children, and, in fact, when asked to define "proud" they said, "When I do all my problems right." Asked what "good" meant, they said "I am very good at school," and went on to indicate that this meant that they got good grades. Czech parents were proud of their children's school prizes and asked the children to show them to the interviewer; but they showed pride in all the achievements of their children, and even in their individual peculiarities.

For the Chinese, also, education is important. Diligence and hard work at school are highly valued; regular attendance is important since "shirking one's obligations" is a very bad thing in all aspects of life. Chinese children have a very long school day, as they go to Chinese school for two hours after regular school.

By contrast, among the people of Sumerville, in the Cumberland, school is subsidiary. The home is the center of all significant activities, the place where skills in the roles assigned to male and female are taught. Human relations take precedence over everything else. A boy will stay home from school, not only to help his father in plowing or in a hogkill, but also to be with him if he has lost his job and has to stay at home. A septic sore throat may not keep a child away from school, but a sick sister in need of company and a reassuring presence will do so. It is important for the child to know how to live happily and effectively in a family group, to play with a group of siblings. It is important for the girl to learn housework and child-rearing, for the boy to learn the arts of farming, of repairing broken tools. In all this, the school is not needed.

Formal education was found unimportant for the Spanish-speaking people of Attarque, also. Here it was difficult for the teacher to motivate the children to take school seriously. The usual incentives of a better job at the end or of an improved standard of living did not operate, since for this group the future does not motivate the present. There was no desire to have a higher standard of living; these were children of people who would bury their silver dollars without even marking the location, rather than accumulate them toward buying the products of technology. Here a boy was accorded respect when he proved himself to be a good son or a good Catholic or a good member of the community; when he raised himself through his efforts, he was viewed with suspicion.

The immigrant groups under consideration also had and prized warm and intimate family relations. They, too, valued the fulfillment of role. Nevertheless, with these it was possible for school attendance to have priority and for education to be given a high place, because the children did not identify themselves with their parents' roles in

society, and neither did the parents want them to do so. Chinese parents said they wanted to do for their children what their own parents had not been able to do for them, such as send them to college. Czech parents spoke with pride of the difference between their own childhood background and the place which their children achieved through education. Of the Eastern European Jewish children interviewed, only two wanted to be like their parents; the wish of the others for higher education and a professional career was certainly matched by the parents' hopes for their children. For these groups, progress was a value.

¶ In the Cumberland group, progress was not prized. The children, grown to adolescence, usually showed no desire for a different kind of life, in spite of what, by "American" standards, are certainly inadequate living conditions. If, in the need to earn a living, they had to leave home, they usually returned, not only because they lacked techniques for adapting to the culture outside, but also for the sheer love of the culture they had left behind. Education, for these people, came through participation in family activities, ceremonials, and responsibilities. Children saw drunkenness and quarrelling, wife-beating, stabbings, death and funerals, grief and joy and failure. They were protected from the knowledge of childbirth and of the reproductive process in general, but in all other facts of the life of their society they received their education at home. Formal education and education in adapting to city ways of life would furnish them with tools for moving away from the old pattern; but this they do not want to do.

Implications for Work with Persons of Variant Culture

How will the "American" teacher, doctor, nurse, social worker, etc., react to the people he works with? "Americans," like others, have learned to consider certain personality traits admirable, others as despicable. How will they react to, say, Chinese children, who have learned to be submissive and silent? How will they treat Chinese mothers, who are self-deprecating and apologetic, following the dictates of courtesy in their culture? Can they understand the actions of children of Eastern European Jewish immigrants who are, at one and the same time, accepting of personal authority (for to "talk back" is a terrible act) and yet are trained to question all intellectual authority with minute critical analysis?

These children are reacting in ways based on the structuring of interpersonal relations in the different cultural groups from which they come. The "American" must be aware of this background for behavior, for then he will know that the apologetic attitude of the

Chinese child is not a sign of personal insecurity and that the Jewish child, who is so critically contentious in debate, may be indulging in an arduous feat of intellectual virtuosity.

The place the culture accords to suffering provides another basis for possible misunderstanding. "Americans" believe that it is admirable to carry one's own burden of grief and self-doubt; to smile bravely when ill, and to be a "good," self-sufficient patient. But people of other cultures find our behavior under misfortune insane; or they find it exclusive, depriving others of their right to help us. The "American" assumption in this case reflects the cultural stress on self-sufficiency and on individualism. It makes sense against the background of a culture of which it is a part, just as much as the belief that grief and pain must be shared makes sense within a different cultural context.

It is difficult for an "American" nurse not to be annoyed at the patient who wants constant attention, not to prefer the patient who bears her discomfort silently; it is hard for an "American" teacher to respect the child who runs to her with an account of all his ills. Yet patterns of suffering are as much a part of culture as the Italian's liking for spaghetti, and this is neither admirable nor reprehensible. A self-respecting Pole *must* answer a "How are you?" with a long list of his ills. He has a strong pattern for making himself valuable to the world, as Ruth Benedict says, "through suffering." It is wrong of him to say, for example, that he likes his job, that everything is going well with him; as wrong as it is for us to answer a casual greeting with a list of complaints. To us, against our own frame of reference, the Pole is complaining. We do not respect his behavior. But the Pole is not complaining. He is acting with pride and dignity, as a self-respecting man should act.

Workers with children and their families should also know something about the meaning of the group for the people with whom they have dealings. "Americans" use the term "group" very often. We speak of group spirit and group unity, of the formation and dissolution of groups. We teach our children to join groups of various kinds, and expect them to go through an age when they form "clubs" of their own. We therefore find it difficult to imagine that there are people who almost never use the term "group" in their conversation, and whose members do not ordinarily form groups but, like the Greeks, are born into them. When the "American" speaks of a group leader he does not mean a father or a grandmother; but in these variant cultures, the significant grouping is the family, or the extended family, and its "leader" is the head of the family.

For people of this background, the community of people from their native village or country of birth also forms a recognized unit.

This may be a physical grouping, as when Italians from one village settle on one side of a street. Or it may be a construct as with the Greeks who, having for centuries gone out singly to settle in distant parts of the globe, have a pattern for maintaining a close tie and relationship with a community which is not physically present. In either case, the unit recognized is not the larger "American" community. Such people may fail to become responsible members of the community for the simple reason that they have failed to recognize it as a valid grouping for belonging; or, if they have so recognized it, they may have lacked completely in the techniques for entering the unit and making themselves a part of it. Imaginative community workers, who have enabled people from such cultures to become incorporated in the community, have found them highly capable of extending their loyalty and sense of responsibility to the new unit of identification.

In respect to the child, there are more issues involved here. The groupings which the "American" child is taught to recognize and enter are mainly age-groupings. The age-grouping, strongly aided by the law of universal education, is firmly entrenched in "American" culture and is supported by our psychological tenets of child development and our family pattern which separates adult activities from child activities.

On the other hand, children like those of the Chinese and the Greeks, to cite only two examples, have learned to enjoy a group of assorted people of all ages, to feel at home in it, to find a significant place in it and share fully in its activity. They are born into such a unit and, by virtue of this fact, they inherit their contacts with other units. Children with this background have a basically different experience in school from their "American" classmates, though this is not evident on the surface. Not only do they find it difficult to recognize the class as a group; they also fail to profit fully from the training in group experience and participation which the school offers.

Material about other cultures contains certain implications regarding the placing of children through adoption and in foster homes. In many groups we find a strong sense of responsibility toward relatives, so that a family will take in and rear and educate the child of a dead brother, or a more distant relative. But not in all these groups is love given freely to a child who is not one's offspring. For example, the Greeks will comment to a child about the generosity and responsible behavior of his foster parents. Here, with physiological parenthood paramount in engendering parental love, the foster parents can never forget that a child is not actually their own. And the child himself behaves as an "orphan."

There are indications, too, that the Eastern European Jews also, strongly as they feel the responsibility for indigent relatives, do not

accept the foster child completely. Full physiological relationship is so important that, according to Joffe, even half-siblings are called by step-sibling terms, not by blood-relationship terms; and when a widow marries a widower, each with children, reference is made to *my* children, *your* children, and *our* children.

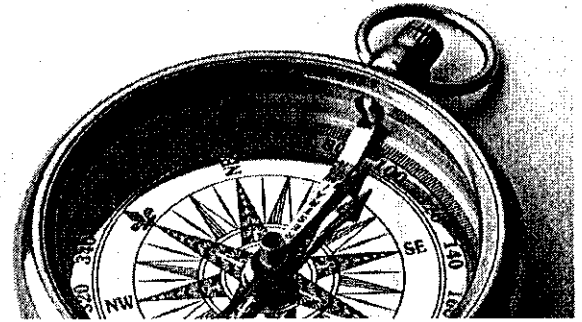
These few illustrations of the ways in which people of various cultures differ in ideas and customs and values may be sufficient to make the point that culture is something the professions should take into account in their work with children and their families. The aim of all professional workers is to provide constructive experiences for the people they serve. The findings of anthropologists make it clear that this aim cannot be fully accomplished unless the cultural meaning of these experiences to particular individuals is understood and utilized.

DISCUSSION TWO

Prior to beginning work on this discussion, read the webpage for the Behavior Analyst Certification Board (BACB), the Harvey, Luiselli, & Wong, (2009) article, and review the APA's Ethical principles of psychologists and code of conduct (Links to an external site.)Links to an external site. required for this week.

In your initial post:

- Applied behavior analysis is a rapidly growing area of learning psychology. Based on the information in the required web page and article, describe what you think it would be like to be an applied behavior analyst in a school setting.
- Analyze and describe how the APA's Ethical principles of psychologists and code of conduct (Links to an external site.)Links to an external site. might affect the implementation of behavior modification principles.
- Examine the behavioral analysis approach to personality psychology and discuss whether personality shapes behavior or behavior shapes personality. Use evidence from the resources to support your statements.
- Evaluate the cultural implications of addressing and treating mental health issues in standardized school settings.
- Describe the benefits this type of approach might have for students.



 (<https://twitter.com/share?url=https%3a%2f%2fwww.apa.org%2fethics%2fcode%2findex&via=APA&text=Ethical+Principles+of+Psychologists+and+Code+of+Conduct>)

 ([javascript:openEmail\(\);](#))

Including 2010 and 2016 Amendments

Effective date June 1, 2003 with amendments effective June 1, 2010 and January 1, 2017. Copyright © 2017 American Psychological Association. All rights reserved.

Introduction and Applicability

Preamble

General Principles

Section 1: Resolving Ethical Issues

Section 2: Competence

Section 3: Human Relations

Section 4: Privacy and Confidentiality

Section 5: Advertising and Other Public Statements

Section 6: Record Keeping and Fees

Section 7: Education and Training

Section 8: Research and Publication

Section 9: Assessment

Section 10: Therapy

History and Effective Date

Amendments to the 2002 "Ethical Principles of Psychologists and Code of Conduct" in 2010 and 2016

SHARE 
THIS (#)

 (https://twitter.com/share?url=https%3a%2f%2fwww.apa.org%2fethics%2fcode%2findex&via=APA&text=Ethical+Principles+of+Psychologists+and+Code+of+Conduct)

Additional Resources

2018 APA Ethics Committee Rules and Procedures (PDF, 197KB)

Revision of Ethics Code Standard 3.04 (Avoiding Harm)

APA Ethical Principles of Psychologists and Code of Conduct (2017) (PDF, 272KB)

2016 APA Ethics Committee Rules and Procedures

Revision of Ethical Standard 3.04 of the "Ethical Principles of Psychologists and Code of Conduct" (2002, as Amended 2010) (PDF, 26KB)

2010 Amendments to the 2002 "Ethical Principles of Psychologists and Code of Conduct" (PDF, 39KB)

Compare the 1992 and 2002 Ethics Codes

Advancing psychology to benefit society and improve people’s lives



PSYCHOLOGISTS

- Standards & Guidelines
- PsycCareers
- Divisions of APA
- Ethics
- Early Career Psychologists
- Continuing Education
- Renew Membership

STUDENTS

- Careers in Psychology
- Accredited Psychology Programs
- More for Students

ABOUT PSYCHOLOGY

- Science of Psychology
- Psychology Topics

PUBLICATIONS & DATABASES

- APA Style
- Journals
- Books
- Magination Press
- Videos
- PsycINFO
- PsycARTICLES
- More Publications & Databases

ABOUT APA

- Governance
- Directorates and Programs
- Policy Statements
- Press Room
- Advertise with Us
- Corporate Supporters
- Work at APA
- Contact Us

MORE APA WEBSITES

- ACT Raising Safe Kids Program
- American Psychological Foundation
- APA Annual Convention
- APA Center for Organizational Excellence
- APA Education Advocacy Trust

- APA Services, Inc.
- APA PsycNET[®]
- APA Style
- Online Psychology Laboratory
- Psychology: Science in Action

GET INVOLVED

- Advocate
- Participate
- Donate
- Join APA

[Privacy Statement](#) [Terms of Use](#) [Accessibility](#) [Website Feedback](#) [Sitemap](#)

FOLLOW APA

[more](#)

© 2019 American Psychological Association

750 First St. NE, Washington, DC 20002-4242 | [Contact Support](#)

Telephone: (800) 374-2721; (202) 336-5500 | TDD/TTY: (202) 336-6123

Application of Applied Behavior Analysis to Mental Health Issues

Mark T. Harvey
Florida Institute of Technology

James K. Luiselli
The May Institute, Inc.

Stephen E. Wong
Florida International University

The theoretical and conceptual basis for behavior analysis emerged from the fields of experimental psychology, physiology, and philosophy, effectively melding theory with scientific rigor. Behavior analysis has since expanded from controlled laboratories into applied settings, including hospitals, clinics, schools, family homes, and communities. Much of the early research in applied behavior analysis (ABA) included participants with mental health disorders and developmental disabilities. ABA research for persons with developmental disabilities is vibrant and expansive; however, there is a paucity of recent research in behavior analytic assessment and treatment for persons with mental health diagnoses. This article describes how ABA technology can advance mental health services for children and adults utilizing a multidisciplinary approach to link professionals from psychology, psychiatry, and other associated disciplines to optimize patient outcomes. Discussion focuses on historic applications of behavior analysis, opportunities, and barriers in the mental health field, and ways in which ABA can contribute to a multidisciplinary treatment approach.

Keywords: applied behavior analysis, functional behavior assessment, functional analysis, contingency management, acceptance and commitment therapy

The etiology of mental illness is believed to be a complex interaction between genetics, physiology, neurobiology, and environmental factors that lead to psychological, physiological, and/or behavioral changes. When these deviations differ significantly from societal norms and interfere with one's ability to function in daily life, the person may be diagnosed with a mental disorder (American Psychiatric Association, 2000). Often a licensed physician, psychiatrist, or psychologist assesses an individual, diagnoses a mental disorder, and then designates a treatment plan for that individual. Although an interdisciplinary approach, wherein representatives from various disciplines such as medicine, psychiatry, clinical psychology, neu-

rosience, education, social work, and behavior analysis convene to devise a treatment plan would be preferable, the logistics and resources required limit this practice to select clinical facilities. We posit that behavior analysis, which includes refined techniques for teaching and motivating adaptive behavior, should be an integral part of a multidisciplinary approach to mental health services. Combining technologies derived from behavior analysis and other disciplines could broaden our understanding of mental disorders, expand the range of available interventions, and improve therapeutic outcomes and client satisfaction.

This article briefly examines early applied behavior analysis (ABA) research with mental disorders, the development of functional behavior assessment and functional analysis of behavior problems, potential contributions of ABA to multidisciplinary mental health services, and recent ABA studies with mental disorders in children and adults. While covering these topics, the present article highlights some of ABA's technological developments within mental health services and special challenges it has faced.

Mark T. Harvey, Florida Institute of Technology, Melbourne, Florida; James K. Luiselli, The May Institute, Inc., Randolph, Massachusetts; Stephen E. Wong, Florida International University, Miami, Florida.

Correspondence concerning this article should be addressed to Mark T. Harvey, School of Psychology, Florida Institute of Technology, 150 W. University Boulevard, Melbourne, FL 32901-6975. E-mail: mharvey@fit.edu

Evolution of Mental Health Treatment and Behavior Analysis

The treatment of individuals with mental illness changed dramatically during the 20th century as custodial arrangements progressed to a mix of educative and therapeutic programs within mental hospitals, outpatient clinics, and community-based facilities (Braddock & Parish, 2002). The use of psychosurgery and electroconvulsive shock therapy decreased as pharmacology became the treatment of choice for many mental health impairments (Braddock & Parish, 2002; Wong, 2006). A parallel change has been occurring within the field of behavior analysis as its investigations have extended from basic research with nonhuman animals in laboratories to improving socially significant behavior of humans in applied settings (Baer, Wolf, & Risley, 1968, 1987).

Much of the early research within the field of ABA was conducted within state mental hospitals using operant procedures such as token economies, reinforcement procedures, shaping, and extinction for persons with severe mental disorders such as schizophrenia (Ayllon & Azrin, 1965; Ayllon & Haughton, 1964; Ayllon & Michael, 1959). Over the last 50 years, behavior analysis has been successfully applied in mental institutions and community-based facilities to increase social, self-care, vocational, leisure, and recreational skills while concurrently reducing behavioral problems such as delusional speech, bizarre behavior, and aggression (Wong, 1996; Wong, Wilder, Schock, & Clay, 2004). Despite beneficial outcomes, behavior analytic techniques are often underused or supplanted by interventions with limited scientific support (Scotti, Morris, McNeil, & Hawkins, 1996; Wong, 2006). The enhanced prognostic and therapeutic outcomes associated with ABA indicate that this approach could contribute much to the treatment of clients with mental health disorders.

A central premise of ABA is that focusing on observable behaviors provides an objective and empirically based framework for the assessment and treatment of mental disorders (Scotti et al., 1996; Wong, 1996). By concentrating on behavioral manifestations of mental disorders clinicians can obtain specific and independently verifiable measures of clients' problems. This method can also facilitate the discovery of func-

tional relations between overt behavior and environment stimuli, leading to interventions that reengineer aspects of clients' social and physical surroundings. Assessment of mental health problems is complicated by reliance on self-reports of mental states, often evaluating covert behaviors and unobservable events. Interpreting the roles of mental events and behavioral sequelae are a challenging endeavor with multiple confounding variables that must be controlled or ruled out during the course of treatment (MacCorquodale & Meehl, 1948). For example, it can often be difficult to disentangle the sedating and enervating effects of medications from the symptoms of a mental disorder, such as the negative symptoms of schizophrenia (Wilder & Wong, 2007). Current ABA research with mental health disorders uses mixed assessment methods, employing direct observation of overt behaviors as well as interview, questionnaire, and other self-report measures of covert behavior and internal processes to overcome the limitations of singular assessment procedures.

Functional Behavioral Assessment and Functional Analysis

Functional analysis and functional assessment arose out of research treating self-injury, aggression, and disruptive behavior in persons with developmental disabilities (Carr, 1977; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982). This line of research differed from prior forms of applied behavior analysis in its intensive efforts to isolate specific consequences maintaining problem behavior (Hanley, Iwata, & McCord, 2003). Interventions that identify and alter consequences maintaining a "targeted" behavior (e.g., determining that a client engages in verbal aggression to escape work demands) are more effective and may have better long-term outcomes than interventions that treat the problem by simply administering arbitrary reinforcers (Ingram, Lewis-Palmer, & Sugai, 2005).

Functional Behavior Assessment (FBA)

Behavior assessment entails descriptive and/or indirect observational techniques to investigate hypotheses about the factors that predict and maintain behavior. Questionnaires, checklists, interviews, and observational data

are scrutinized to identify: *motivating operations* (i.e., stimuli that alter the effectiveness of consequences and/or alter the frequency of behavior through their effect on consequences), *antecedents* (i.e., stimuli that reliably predict when reinforcers, punishers, or neutral stimuli will follow a behavior), *behavior* (i.e., an operational definition of an organism's interaction with the environment), and *consequences* (i.e., a stimulus change that follows a behavior of interest). Hypotheses about environmental stimuli thought to elude and maintain problem behavior are incorporated in the client's treatment plan, which subsequently attempts to dismantle problematic contingencies and erect contingencies that reinforce adaptive responses. Diminishing the impact of motivating operations and/or decreasing the frequency of behavioral cycles through antecedent manipulations often makes the relation between targeted behavior and antecedents ineffective or irrelevant. For example, emotional outbursts that arise when a client is asked to perform a certain task might be diminished by making the task easier and less time-consuming to perform, or by making the task more interesting and enjoyable to do.

Functional Analysis

Researchers and clinicians use functional analysis to empirically determine which contingencies maintain the problem behavior. Using a series of brief sessions (5 to 15 min), therapists or confederates respond in a scripted manner (e.g., problem behavior produces either escape from demands, staff attention, or no consequences) to simulate the various contingencies being investigated (e.g., contingent escape, contingent attention, opportunity to be left alone). These analog conditions are systematically presented to observe under which conditions the targeted behavior most often occurs. The systematic manipulations used during functional analysis allow investigators to determine any functional relation between environmental stimuli and target behaviors (Hanley et al., 2003).

Integration of ABA Into a Multidisciplinary Model

Behavior analytic methodology can be an invaluable tool for multidisciplinary practice

above and beyond its ability to reveal environment-behavior relation. Operational definitions, repeated measures, and within-subject designs can be used to evaluate subtle effects of pharmacological interventions on individual clients, such as dose-response relations and drug-behavior interactions (Poling & Ehrhardt, 1999). This methodology can also be utilized to examine behavior that originates from medical conditions but persists as a result of social contingencies (e.g., symptoms and complaints about an illness that continue because of attention from family members). Psychiatry may benefit from a hypothesis driven prescriptive model that differentiates between pharmacological agents, within a given drug class, based on the function of targeted behaviors (Roberts et al., 2008). Although translational research is needed, Roberts and colleagues (2008) demonstrated that antiepileptic drugs showed differential effectiveness for behaviors maintained by either positive or negative reinforcement (i.e., social attention vs. escape from aversive stimulation).

Behavior is indeed the product of complex neurochemical processes, but the behavior-environment interaction should not be overlooked. Scotti and colleagues (1996) described an integrated diagnostic system using functional analysis to augment the Diagnostic and Statistical Manual of Mental Disorders (DSM) classification system, theoretically providing clinicians with a seamless process of classification and support development. Additional research is needed to identify the most efficacious means of integrating ABA within a multidisciplinary approach to mental disorders (Hemmings, 2007), but years of research support the amalgamation of ABA with other evidence-based practices (Poling & Ehrhardt, 1999; Scotti et al., 1996).

As demonstrated by over 50 years of scientific research, behavior analytic techniques (e.g., reinforcement, FBA, functional analysis) offer empirically validated, evidence-based practices for clinicians and researchers working in mental health services. Behavior analysis has shown utility within institutions and across community settings, and it complements the work of other mental health disciplines. The following sections discuss the use of behavioral treatment with children and adults who have mental health issues and present case

examples to illustrate the effectiveness of merging behavioral techniques into a multidisciplinary approach to mental health.

Children's Mental Health Issues

Predominate children's mental health issues include attention-deficit/hyperactivity disorder (ADHD), obsessive-compulsive disorder (OCD), Tourette's syndrome (TS), and other clinical conditions categorized as anxiety and mood disorders (American Psychiatric Association, 2000). Although ABA has a rich tradition with children who have developmental disabilities (Matson, Laud, & Matson, 2004), there are fewer applications among those with psychiatric disorders. Explaining this difference, Woods, Miltenberger, and Carr (2006) noted that ABA did not evolve from clinical psychology but instead, "out of experimental psychology laboratories and from settings to which this early laboratory work was first extended for applied purposes" (p. 408). They commented further that ABA relies on measurement of observable behavior and not "private" (covert) events that cannot be detected but constitute key symptoms of many disorders. One additional concern is that many children with mental health issues are treated in outpatient settings where it usually is more difficult to establish experimental control compared to the institutional environments that dominate ABA research.

Documentation of "target" behaviors is a defining characteristic of ABA. Therefore, it is critical to measure the clinical problems that children display as the result of a mental health issue. Various data sources are used to establish a pretreatment baseline and subsequently to verify whether treatment is effective or should be revised in favor of alternative methods. Examples of behavior-specific frequency measures are the number of words spoken by a child with selective mutism (Schill, Kratochwill, & Gardner, 1996), the number of tics displayed by a child with TS (Woods & Luiselli, 2007), and the number of hair-pulling responses by a child with trichotillomania (Byrd, Richards, Hove, & Friman, 2002). Also, duration data can be recorded, such as the amount of time a child with a specific phobia spends in the presence of a feared object or situation (Ricciardi, Luiselli, & Camare, 2006). Finally, behavior analysts have

been encouraged to consider self-report of anxiety, beliefs, and other cognitive manifestations as valid clinical indices and dependent measures to evaluate treatment effectiveness (Friman, Hayes, & Wilson, 1998).

An ABA orientation to children's mental health issues emphasizes FBA as a prerequisite for treatment formulation. The purpose of conducting a FBA is to identify situations that influence clinical presentation, and in turn can be manipulated therapeutically. For example, stressful interactions and intrusive sensations can exacerbate vocal and motor tics in children with TS (Leckman, King, & Cohen, 1999). One FBA approach would be asking the child with TS and significant others such as parents and teachers to list those situations most associated with tics, as well as situations in which tics rarely occur. Armed with such information, a clinician can select several treatment procedures that are "matched" to behavior function.

Treatment of Children's Mental Health Issues

Regarding treatment of children's mental health issues, ABA typically incorporates antecedent and consequence control procedures. Interventions may concentrate on triggers that set off the behavior, replacement behaviors, consequences that maintain problem behavior or adaptive behaviors, or a combination thereof. Multimodal intervention plans decrease the likelihood of problem behavior through antecedent manipulations, teach alternative prosocial behaviors that may be less stigmatizing, and provide interventionists with reactive strategies to deescalate clients who engage in problem behaviors.

Antecedent Manipulations

Interventions may adjust the antecedent conditions so that the contextual variables that set the occasion for a target behavior are eliminated and the adaptive replacement behavior is more likely to occur. As an example, a child with OCD who has checking rituals may experience heightened anxiety and negative thoughts that lead to compulsive actions and resulting anxiety relief. Eliminating these behavior provoking "prechecking" thoughts and feelings would be a

legitimate antecedent treatment strategy. Small environmental manipulations such as changing clinical environments from the austere may increase follow-up visits. Identification and amelioration of motivating operations may increase compliance to treatment regimes. For example, if a client's sleep problem is identified and treated, the client would be more likely to attend counseling sessions as the reinforcing properties of avoiding group sessions are diminished.

Consequence Manipulations

Consequence variables are events and environmental interactions that follow a clinical problem. Often these behavior contingent consequences can be positively or negatively reinforcing so that the effect is to strengthen (maintain) the problem. In the previous example of a child with OCD, performing a checking ritual diminishes anxiety, thereby functioning as negative reinforcement. One focus of treatment in such a case would be eliminating this source of reinforcement, perhaps by teaching the child to resist performing a checking ritual and having a parent or therapist provide positive consequences as a reward for success (Wetterneck & Woods, 2006). Behavior analysis has identified several methods of preference assessment (e.g., DeLeon & Iwata, 1996) which are easily adapted to children with mental health issues, diminished cognitive capacity, and/or low speech production. For example, clinicians may use preference assessment results to reward dietary changes to help diminish the impact of constipation, a common side effect of pharmacological agents.

Case Study: Lucy

The combination of antecedent and consequence treatment procedures with data acquired through self-report and direct measurement is illustrated in a study by Whitton, Luiselli, and Donaldson (2006). The participant, Lucy, was a 7-year-old girl diagnosed with generalized anxiety disorder (GAD) and specific phobia that concerned fear of vomiting. Her developmental history was significant for excessive worry, chronic anxiety, and complaints of stomach discomfort. Because she feared vomiting, Lucy had significant eating inhibition and weight loss.

Following an initial intake session at a hospital-affiliated child clinic, several measures were recorded during a 2-week baseline phase and a 14-week course of treatment. Each day, Lucy's mother documented the frequency of stomachache complaints and the duration of each episode. Maternal ratings of stomachache severity ranging from 0 (*no signs of distress*) to 10 (*maximum signs of distress*) also were scored based on observable behaviors such as perceived pain, crying, and clinging. Lucy completed the Trait Anxiety subscale of the State-Trait Anxiety Inventory for Children (STAIC-T; Spielberger, 1973) 1 week before initiating treatment (baseline), 1 week after terminating treatment, and 5 months after treatment. The Trait Anxiety subscale contains 20 self-report items that assess general anxiety-proneness and was used as a self-report measure to assess further Lucy's response to treatment. One additional measure was Lucy's body weight recorded by clinic nursing staff at baseline and approximately 3-week intervals during and following treatment.

Treatment with Lucy was implemented by a therapist in three phases during 14 weekly to biweekly sessions. Phase I emphasized psychoeducation about anxiety, how to recognize and label accurately physiological signs of distress, and how stopping anxiety early would prevent it from building. Sessions in Phase II featured training in behavioral coping skills through distraction and relaxation. Lucy was taught to employ distraction by performing an enjoyable activity when she was anxious or feared vomiting. She learned how to induce relaxation through simple breathing exercises and abbreviated muscle "calming." In Phase III, treatment addressed cognitive coping strategies, including correcting misinterpretations of bodily sensations, challenging unrealistic automatic thoughts, and employing counterthoughts to replace anxiety provoking self-talk. The therapist also introduced graduated, imagined exposure by having Lucy visualize the onset of vomiting in a variety of social contexts and using coping strategies to reduce her level of distress.

Another component of treatment was having Lucy's parents implement contingency management procedures to help her reduce anxiety and stomachache-related distress. They were trained in active ignoring of Lucy's "attention seeking" maladaptive behaviors and were taught to identify

their own reactions that might reinforce the behaviors (e.g., talking at length with Lucy about the discomfort or "soothing" her). The therapist then guided them in creating an alternative plan for responding to Lucy's complaints with simple prompts to use the coping strategies she had learned in therapy. To avoid inadvertent reinforcement of stomachaches at bedtime by attention from her father (who often talked with or read to Lucy at night if she was "sick"), periods of "father-daughter time" were scheduled each evening so that they were not contingent on Lucy's reports of distress.

With treatment, Lucy showed significant clinical progress. Frequency of stomachaches ranged from 18 to 20 each week at baseline, but decreased steadily in response to treatment, with only 2 incidents reported during the final month of therapy sessions. The severity of stomachaches also decreased contemporaneously with the reduction in frequency. The average maternal rating of stomachache intensity was between 5.0 to 5.1 in the baseline phase and 1 or less by the end of treatment. Duration of stomachaches exceeded 500 min on average each week at baseline, decreased progressively during treatment, and occurred less than 10 min each week posttreatment. Lucy's weight at the first week of the baseline phase was 41.2 pounds, and at her final treatment session she weighed 43 pounds. Her mother reported that as treatment progressed, Lucy began eating larger portions of food at all meals and no longer complained about "being full" or feared vomiting. A nurse's report at the clinic indicated that the weight Lucy gained was appropriate for her age and the length of time. Finally, on the Trait Anxiety subscale of the STAIC-T, Lucy endorsed more anxiety than 34% of females her age before treatment, and 8% at posttreatment. At the last treatment session, her mother indicated that Lucy was less anxious in a variety of situations. For example, she explained how Lucy no longer expressed worry about being left with a babysitter in contrast to her usual increased anxiety anticipating this event.

The case report by Whitton et al. (2006) is an example of *clinical behavior analysis*, an emerging specialty within ABA that addresses traditional mental health problems (Woods et al., 2006). As it applies to children, clinical behavior analysis is practiced by psychologists, consultants, and other mental health profession-

als within office, hospital, and school settings. ABA is at the core of clinical behavior analysis, building on decades of research that has produced innovative assessment, treatment, and single-case evaluation procedures. The extension of ABA to children's mental health issues represents a vibrant area of clinical inquiry and one that embraces collaboration with medical, psychiatric, and related disciplines.

Effective Strategies for Supporting Adults Who Have Mental Health Issues

The range of behavior analytic techniques and spectrum of mental health disorders to which they have been applied are too broad to be adequately covered in this article. A partial example of this is the successful treatment of muscle ties, nervous habits, and stuttering in outpatients by behavior analysts using awareness training and habit-reversal procedures (Miltnerberger, Fuqua, & Woods, 1998). To give some sense of the breadth of behavior-analytic applications in mental health services for adults, we will briefly surmise the theoretical and therapeutic model emerging from operant learning research.

Contingency Management

Early ABA studies in mental health were direct applications of the operant paradigm modifying antecedent and consequent stimuli in the hospital environment to restore patients' functional behaviors (Ayllon & Azrin, 1965, 1968) and to reduce psychotic responses (Ayllon, 1963; Ayllon & Michael, 1959). Contingency management programs were typically implemented by direct care staff who taught and strengthened adaptive behaviors, such as self-care and vocational skills, with verbal prompts, modeling, positive reinforcement (e.g., praise, tokens), and shaping through reinforcement of successive approximations. Hospital staff simultaneously decreased psychotic responses, such as delusional speech and bizarre rituals, with extinction (e.g., planned ignoring) or mild punishment (e.g., token fines, brief timeout from reinforcement). Programs were usually evaluated by monitoring the frequency of target behaviors and replicating treatment effects within single-subject reversal or multiple-baseline designs.

The token economy is a group contingency management program that restructures the living environment to resemble an economic exchange system (Ayllon & Azrin, 1965, 1968). Desired performances in the setting are subclassified and defined (e.g., self-care tasks, household duties, and social interactions), and staff members dispense tokens to clients for performing these actions throughout the day. Tokens operate as conditioned reinforcement, or mediating stimuli, which clients can later exchange for primary and conditioned reinforcers in the form of snacks, grooming supplies, recreational items, preferred activities, and other sought-after goods. Individual contingency management programs are another therapeutic approach usually focused on idiosyncratic problems not adequately addressed by the group contingency program. Individual programs (e.g., utilizing personalized reinforcers, one-to-one training, or behavioral contracts) have been designed to improve a wide spectrum of inappropriate behaviors including physical intrusiveness, verbal and physical aggression, social isolation, and elective mutism, to name a few (Lieberman, Wallace, Teigen, & Davis, 1974; Stahl & Leitenberg, 1976).

The effectiveness of individual contingency management programs have been demonstrated in scores of single-subject design studies (Wong et al., 2004), and the superior outcomes of token economy programs as compared to treatment-as-usual groups have been shown in about a dozen controlled within-subject and between-groups design studies (Dickerson, Tenhula, & Green-Paden, 2005). However, despite positive outcomes associated with these programs, the mental health systems in this country have consistently favored biomedical over learning-based interventions, relying heavily on psychotropic drugs whose limited therapeutic efficacy and serious health risks often go unrecognized (Wong, 2006).

Functional Analysis and FBA

FBA and functional analysis have begun to shape the design of behavioral interventions for severe mental disorders in adults. Schock, Clay, and Cipani (1998) presented a series of seven case studies utilizing functional assessments with clients diagnosed with schizophrenia who displayed delusional speech (e.g., "I am burning

up. My uterus is on fire. I don't have a uterus") or other seeming irrational acts (e.g., a client becoming physically aggressive with other residents who talked to him). Clients were observed to generate hypotheses about the function of their psychotic responses. In each of these seven cases, a probable cause of the bizarre behavior was identified and removed (the client who claimed her uterus was "on fire" was referred to a physician who diagnosed a pelvic infection and treated her with antibiotics; the client who became aggressive was found to react adversely to long conversations and was taught to tell other residents to "leave me alone"), which resulted in cessation of the client's problematic behavior.

Thus far, only a few functional analyses have been conducted with persons with severe mental disorders with normal intelligence, but results have been encouraging. Wilder, Masuda, O'Connor, and Baham (2001) analyzed the effects of four contingencies on delusional speech in a middle-aged man with schizophrenia: escape from demand, attention, alone, and control (brief termination of attention following bizarre speech). These investigators found that bizarre speech occurred at a substantially higher rate in sessions with attention as compared to the other experimental conditions. Based on this finding, an intervention consisting of differential reinforcement of alternative (DRA) vocalizations (attention for appropriate speech) plus extinction for bizarre vocalizations was applied and evaluated within a reversal design. The intervention was shown to nearly eliminate the client's psychotic speech. Results of this study were later replicated with a second client also diagnosed with schizophrenia who displayed bizarre vocalizations in the form of tangential remarks (Wilder, White, & Yu, 2003). Utilizing simplified habit reversal procedures, the client in this second study was also taught awareness training and a response to compete with bizarre vocalizations ("Oh, that didn't make sense, we were talking about ____"). Following a functional analysis that identified attention as the consequence maintaining the highest percentage of bizarre vocalizations, an intervention comprised of awareness training, competing response training, differential reinforcement of appropriate speech, and extinction of bizarre speech was implemented and shown to reduce this psychotic behavior to near zero levels.

Acceptance and Commitment Therapy (ACT)

The roots of ACT can be traced back to laboratory studies showing that verbal stimuli can override schedules of reinforcement in the control of human behavior (Hayes, Brownstein, Hass, & Greenway, 1986; Hayes, Brownstein, Zettle, Rosenfarb, & Korn, 1986) and relational frame theory elucidating that associations between verbal stimuli largely determine the effect of those verbal stimuli (Hayes & Hayes, 1989). ACT for severe mental disorders further assumes that prominent psychotic symptoms are either avoidance or escape responses, or that they engender problematic avoidance or escape (Bach, 2004; Bach, Gaudiano, Pankey, Herbert, & Hayes, 2006).

Schizophrenic delusions are hypothesized to be escape-like responses that permit clients who are troubled by feelings of failure, fear, and demoralization to blame other people or outside events for their difficulties. In contrast, schizophrenic hallucinations are conceived as disturbing internal stimuli that produce avoidance or escape responses that interfere with the client's functioning (hearing ridiculing voices causes the client to avoid other people). ACT for psychotic symptoms involves: (1) identifying and abandoning internally oriented control strategies; (2) accepting the presence of difficult and disturbing thoughts and feelings; (3) "just noticing" these private experiences without resisting them or accepting them as literally true; and (4) focusing on overt behaviors with valued outcomes.

Results of a controlled study with 80 inpatient participants (Bach & Hayes, 2002) showed that ACT produced lower symptom believability and half the rehospitalization rate of a treatment-as-usual group. Results of another controlled study with 40 inpatients (Gaudiano & Herbert, 2006) showed that ACT produced higher symptom improvement at discharge and lower 4-month rehospitalization rates, the latter result not achieving statistical significance. Although only preliminary evidence exists to support use of ACT with severe mental disorders, data showing the effectiveness of ACT with a variety of other disorders suggests its potential utility with psychotic behavior (Hayes, Masuda, Bisset, Luoma, & Guerrero, 2004).

ACT offers novel techniques for helping clients troubled by private events labeled as psychotic symptoms. By reinterpreting their experience of delusions and hallucinations and by refocusing on productive activity, clients can respond to these internal stimuli in a healthy fashion. A caveat for ACT, however, is that therapists using this technique should be wary of giving social reinforcement for fabricated self-reports of hallucinations (which presents a conundrum because, ultimately, hallucinations are private events and are not independently verifiable) or encouraging acceptance of correctable adversities that the client may have expressed in veiled, metaphorical terms (Schock et al., 1998).

Conclusions and Future Directions

Although ABA is best known for its achievements in the habilitation of persons with developmental disabilities, this approach has a long history in the treatment of severe mental disorders. Some of the first published examples of ABA were studies that increased appropriate behavior or reduced aberrant behavior of chronic mental patients in psychiatric hospitals. In recent years, ABA interventions for severe mental disorders have grown to include refined functional analyses of problem behavior as well as sophisticated verbal and self-instructional techniques (e.g., habit reversal, acceptance and commitment therapy). Refinement of assessment techniques are intended to rectify the treatment failures, lack of generalization, and poor maintenance sometimes associated with earlier behavioral interventions.

Given the extensive history of successful contingency management programs for severe mental disorders and other myriad behavioral problems, it would be prudent to provide this as a treatment component and a foundation for other interventions. Some advantages of contingency management programs are that they make clear, explicit expectations of appropriate client conduct (essential for both client instructional and staff management purposes) and they provide positive reinforcement to strengthen and maintain desired client behavior. Considering the developments in functional analysis and functional assessment, it also would be wise to thoroughly investigate the function of problem behavior before attempting to eliminate it. For

example, assessing the function of noncompliance may lead to greater adherence to outpatient medication regimens. If the client's circumstances permit conducting a full functional analysis, this would be the most conclusive method of ascertaining its meaning or the specific environmental stimuli which predict and maintain the problem behavior. Lacking a functional analysis, a FBA can uncover valuable information suggesting treatment procedures that properly take into account the client's motives.

While working with heterogeneous mental disorders ABA has remained a vital and innovative scientific approach. Although most ABA researchers continue to focus on observable, socially relevant responses, current applications of ABA in mental health involve a broader realm of clinical phenomena that has required conceptual and methodological expansions. ABA practitioners now attend to internal and covert processes during assessment and intervention, as in their use of self-report measures of anxiety and imaginary exercises aimed at changing disturbing thoughts. These radical changes call into question some of the fundamental principles of ABA, and only future research will determine whether these departures represent evolutionary advances of the field. Continued research on integrated models is warranted and will further strengthen the use of ABA within mental health while concurrently providing more efficacious therapies.

Although integration of treatment approaches is not completely straightforward because therapies are based on different assumptions and their procedures can be dissimilar, the use of ACT demonstrates how behavior analysis can merge with relational frame theory to create a vibrant approach to mental health issues. The case study of Lucy illustrates how functional assessment can compliment cognitive behavior therapy (CBT). Although challenges in combining varied ABA approaches and clinical practices within mental health are inevitable, the approaches may complement one another raising the likelihood of producing positive and lasting outcomes.

Research reviewed in this article demonstrated that integration of behavior analysis within mental health services will expand clinicians' armamentarium and provide more comprehensive assessment and treatment. Behavior analytic techniques, such as FBA can be used to

identify environmental stimuli that set the occasion for, elicit, or reinforce problematic behaviors. FBA could also reveal social-environmental variables underlying somatic disorders (as in the case of Lucy described earlier) or somatic variables underlying behavioral disorders (as in the case of the woman with a presumed pelvic infection), thereby facilitating multidisciplinary collaboration and selection of appropriate treatments. Retaining the technology that produced early successes, ABA provides empirically validated instructional procedures and practical methods for engineering a client's environment to promote adaptive behavior (e.g., parent and staff training, token programs) that no other clinical discipline offers.

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Ayllon, T. (1963). Intensive treatment of psychotic behavior by stimulus satiation and food reinforcement. *Behaviour Research and Therapy*, 1, 53-61.
- Ayllon, T., & Azrin, N. H. (1965). The measurement and reinforcement of behavior of psychotics. *Journal of the Experimental Analysis of Behavior*, 8, 357-383.
- Ayllon, T., & Azrin, N. H. (1968). *The token economy: A motivation system for therapy and rehabilitation*. Englewood Cliffs, NJ: Prentice Hall.
- Ayllon, T., & Houghton, E. (1964). Modification of symptomatic verbal behavior for mental patients. *Behavior Research and Therapy*, 2, 87-97.
- Ayllon, T., & Michael, J. (1959). The psychiatric nurse as a behavioral engineer. *Journal of the Experimental Analysis of Behavior*, 2, 323-334.
- Bach, P. (2004). ACT with the seriously mentally ill. In S. C. Hayes, & K. D. Strosahl (Eds.), *A practical guide to Acceptance and Commitment Therapy* (pp. 185-208). New York: Springer.
- Bach, P., & Hayes, S. C. (2002). The use of acceptance and commitment therapy to prevent the rehospitalization of psychotic patients: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 70, 1129-1139.
- Bach, P. A., Gaudiano, B., Pankey, J., Herbert, J. D., & Hayes, S. C. (2006). Acceptance, mindfulness, values, and psychosis: Applying acceptance and commitment therapy (ACT) to the chronically mentally ill. In R. A. Baer (Ed.), *Mindfulness-based treatment approaches: Clinician's guide to evidence base and applications* (pp. 93-116). Burlington, MA: Academic Press.

- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91-97.
- Baer, D. M., Wolf, M. M., & Risley, T. R. (1987). Some still-current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 20, 313-327.
- Braddock, D., & Parish, S. L. (2002). An institutional history of disability. In D. Braddock (Ed.), *Disability at the dawn of the 21st century and the state of the states* (pp. 3-61). Washington, DC: American Association on Mental Retardation.
- Byrd, M., Richards, D. F., Hove, G., & Friman, P. C. (2002). Treatment of early onset hair pulling (trichotillomania) as a simple habit. *Behavior Modification*, 26, 400-411.
- Carr, E. G. (1977). The motivation of self-injurious behavior: A review of some hypotheses. *Psychological Bulletin*, 84, 800-816.
- Delcon, I. G., & Iwata, B. A. (1996). Evaluation of a multiple-stimulus presentation format for assessing reinforce preferences. *Journal of Applied Behavior Analysis*, 29, 519-533.
- Dickerson, F. B., Tenhula, W. N., & Green-Paden, L. D. (2005). The token economy for schizophrenia: Review of the literature and recommendations for future research. *Schizophrenia Research*, 75, 405-416.
- Friman, P. C., Hayes, S. C., & Wilson, K. G. (1998). Why behavior analysts should study emotion: The example of anxiety. *Journal of Applied Behavior Analysis*, 31, 137-156.
- Gaudiano, B. A., & Herbert, J. D. (2006). Acute treatment of inpatients with psychotic symptoms using Acceptance and Commitment Therapy: Pilot results. *Behaviour Research and Therapy*, 44, 415-437.
- Hanley, G. P., Iwata, B. A., & McCord, B. E. (2003). Functional analysis of problem behavior: A review. *Journal of Applied Behavior Analysis*, 36, 147-185.
- Hayes, S. C., Brownstein, A. J., Haas, J. R., & Greenway, D. E. (1986). Instructions, multiple schedules, and extinction: Distinguishing rule-governed from schedule-controlled behavior. *Journal of the Experimental Analysis of Behavior*, 46, 137-147.
- Hayes, S. C., Brownstein, A. J., Zettle, R. D., Rosenfarb, I., & Korn, Z. (1986). Rule-governed behavior and sensitivity to changing consequences of responding. *Journal of the Experimental Analysis of Behavior*, 45, 237-256.
- Hayes, S. C., & Hayes, L. J. (1989). The verbal action of the listener as a basis for rule-governance. In S. C. Hayes (Ed.), *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 191-220). Reno, NV: Context Press.
- Hayes, S. C., Masuda, A., Bisset, R., Luoma, J., & Guerrero, L. F. (2004). DBT, FAP, and ACT: How empirically oriented are the new behavior therapy technologies? *Behavior Therapy*, 35, 35-54.
- Hemmings, C. (2007). The relationships between challenging behaviours and psychiatric disorders in people with severe intellectual disabilities. In N. Bouras & G. Holt (Eds.) *Psychiatric and behavioural disorders in intellectual and developmental disabilities*. Cambridge, United Kingdom: Cambridge University Press.
- Ingram, K., Lewis-Palmer, T., & Sugai, G. (2005). Function-based intervention planning: Comparing the effectiveness of FBA function-based and non-function-based intervention plans. *Journal of Positive Behavior Interventions*, 7, 224-236.
- Iwata, B. A., Dorsey, M. F., Slifer, K. J., Bauman, K. E., & Richman, G. S. (1982). Toward a functional analysis of self-injury. *Analysis and Intervention in Developmental Disabilities*, 2, 3-20.
- Leckman, J. F., King, R. A., & Cohen, D. J. (1999). Tic and tic disorders. In J. F. Leckman & D. J. Cohen (Eds.), *Tourette's syndrome-tics, obsessions, compulsions: Developmental psychopathology and clinical care* (pp. 23-42). New York: Wiley.
- Liberman, R. P., Wallace, C., Teigen, J., & Davis, J. (1974). Interventions with psychotic behavior. In K. S. Calhoun, H. E. Adams, & K. M. Mitchell (Eds.), *Innovative treatment methods in psychopathology* (pp. 323-412). New York: Wiley.
- MacCorquodale, K., & Meehl, P. E. (1948). On a distinction between hypothetical constructs and intervening variables. *Psychological Review*, 55, 97-105.
- Matson, J. L., Laud, R. B., & Matson, M. L. (2004). (Eds.). *Behavior modification for persons with developmental disabilities: Treatments and supports*. Kingston, NY: NADD Press.
- Miltenberger, R. G., Fuqua, R. W., & Woods, D. W. (1998). Applying behavior analysis to clinical problems: Review and analysis of habit reversal. *Journal of Applied Behavior Analysis*, 31, 447-469.
- Poling, A., & Ehrhardt, K. (1999). Applied behavior analysis, social validation, and the psychopharmacology of mental retardation. *Mental Retardation and Developmental Disabilities Research Reviews*, 5, 342-347.
- Ricciardi, J. N., Luiselli, J. K., & Camare, M. (2006). Shaping approach responses as intervention for specific phobia in a child with autism. *Journal of Applied Behavior Analysis*, 39, 445-448.
- Roberts, C., Harvey, M. T., May, M., Valdivinos, M. G., Patterson, T. G., Couppis, M. H., et al. (2008). Varied effects of conventional antiepileptics on responding maintained by negative versus

- positive reinforcement. *Physiology and Behavior*, 93, 612–621.
- Schill, M., Kratochwill, T. R., & Gardner, W. I. (1996). An assessment protocol for selective mutism: Analogue assessment using parents as facilitators. *Journal of School Psychology*, 34, 1–21.
- Schock, K., Clay, C., & Cipani, E. (1998). Making sense of schizophrenic symptoms: Delusional statements and behavior may be functional in purpose. *Journal of Behavior Therapy and Experimental Psychiatry*, 29, 131–141.
- Scotti, J. R., Morris, T. L., McNeil, C. B., & Hawkins, R. P. (1996). *DSM-IV* and disorders of childhood and adolescence: Can structural criteria be functional? *Journal of Consulting and Clinical Psychology*, 64, 1177–1191.
- Spielberger, C. (1973). *Preliminary test manual for the State-Trait Inventory for Children*. Palo Alto, CA: Consulting Psychologists Press.
- Stahl, J. R., & Leitenberg, H. (1976). Behavioral treatment of the chronic mental hospital patient. In H. Leitenberg (Ed.), *Handbook of behavior modification and therapy* (pp. 211–241). Englewood Cliffs, NJ: Prentice Hall.
- Wetterneck, C. T., & Woods, D. W. (2006). An evaluation of the effectiveness of exposure and response prevention on repetitive behaviors associated with Tourette's syndrome. *Journal of Applied Behavior Analysis*, 39, 441–444.
- Whitton, S. W., Luiselli, J. K., & Donaldson, D. L. (2006). Cognitive-behavioral treatment of generalized anxiety disorder and vomiting phobia in an elementary-age child. *Clinical Case Studies*, 5, 477–487.
- Wilder, D. A., Masuda, A., O'Connor, C., & Baham, M. (2001). Brief functional analysis and treatment of bizarre vocalizations in an adult with schizophrenia. *Journal of Applied Behavior Analysis*, 34, 65–68.
- Wilder, D. A., White, H., & Yu, M. L. (2003). Functional analysis and treatment of bizarre vocalizations exhibited by an adult with schizophrenia: Replication and extension. *Behavioral Interventions*, 18, 43–52.
- Wilder, D. A., & Wong, S. E. (2007). Schizophrenia and other psychotic disorders. In P. Sturmey (Ed.), *Functional analysis in clinical treatment* (pp. 283–306). London: Academic Press.
- Wong, S. E. (1996). Psychosis. In M. A. Mattaini & B. A. Thyer (Eds.), *Finding solutions to social problems: Behavioral strategies for change* (pp. 319–343). Washington, DC: American Psychological Association.
- Wong, S. E. (2006). Behavior analysis of psychotic disorders: Scientific dead end or casualty of the mental health political economy? *Behavior and Social Issues*, 15, 152–177.
- Wong, S. E., Wilder, D. A., Schock, K., & Clay, C. (2004). Behavioral interventions with severe and persistent mental disorders. In H. E. Briggs & T. L. Rzepnicki (Eds.), *Using evidence in social work practice: Behavioral perspectives* (pp. 210–230). Chicago: Lyceum Books.
- Woods, D. W., Miltenberger, R. G., & Carr, J. E. (2006). Introduction to the special section on clinical behavior analysis. *Journal of Applied Behavior Analysis*, 39, 407–411.
- Woods, J. E., & Luiselli, J. K. (2007). Habit reversal treatment of vocal and motor tics in a child with Tourette's syndrome. *Clinical Case Studies*, 6, 181–189.

Received March 6, 2008

Revision received March 24, 2009

Accepted April 8, 2009 ■

E-Mail Notification of Your Latest Issue Online!

Would you like to know when the next issue of your favorite APA journal will be available online? This service is now available to you. Sign up at <http://notify.apa.org/> and you will be notified by e-mail when issues of interest to you become available!