



A Center Brief Report . . .

Mental Health of Children and Youth: The Important Role of Primary Care Health Professionals

Primary pediatric and adolescent health care providers are confronted every day with youngsters who have substantial mental health and psychosocial concerns. These caregivers are in a unique position to help deal with such concerns and transform how the nation thinks about and addresses the mental health of young people. This brief highlights ways in which such professionals can play a proactive role in ensuring the impending transformation of the mental health system leads to better outcomes for all concerned.

*The Center is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA.
Write: Center for Mental Health in Schools, Box 951563, Los Angeles, CA 90095-1563.
Phone: (310) 825-3634 Fax: (310) 206-8716 E-mail: smhp@ucla.edu
Website: <http://smhp.psych.ucla.edu>.

Support comes in part from the Office of Adolescent Health, Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration (Project #U45 MC 00175) U. S. Department of Health and Human Services.

Mental Health of Children and Youth: The Important Role of Primary Care Health Professionals

This brief report is intended for primary care health providers. Specifically, the following discussion

- underscores why mental health is a basic concern in the practice of all health professionals
- sketches a broad definition of mental health that focuses on strengths as well as problems
- outlines a continuum of interventions
- highlights considerations related to working with families, schools, and communities

Why Young People's Mental Health is a Basic Concern for All Health Professionals

It is widely recognized that mental health is a fundamental and compelling societal concern. Health policy and practice call for health and mental health parity and for a greater focus on universal interventions to promote, prevent, and intervene as early after problem onset as is feasible.

The relationship between health and mental health problems is well established. Families' concerns about behavioral and emotional problems are an everyday consideration in treating children and adolescents in primary health care settings. And, because the majority of these youngsters will not find their way to a mental health specialist, the primary care health provider becomes one of the main resources for addressing their mental health needs.

Many studies document the extent to which mental health issues arise in primary pediatric and adolescent health care. It is estimated that from 12 to 20 percent of youngsters seen in primary care pediatric settings are confronted with substantial psychosocial problems (Wolraich, Felice, & Drotar, 1996) and use health care services frequently (Bernal, Estroff, & Aoudarham, 2000; Jellinek, Murphy, Little, et al., 1999). Research findings also suggest that the costs (time and money) for primary health care of children who have psychosocial symptoms far exceeds the average patient cost (Bernal, et al, 2000).

For some time, there have been calls for primary care health professionals to play a greater role in promoting mental health and addressing mental health problems (Institute of Medicine, 1979; National Center for Education in Maternal and Child Health, 2002; Steinberg, Godomski, & Wilson, 1999). But, in an era of managed care, can more realistically be asked of them (Glied, 1998)? The answer for those concerned about managing the costs of health care is that failure to address mental health needs is not cost effective. And, for this and other reasons, primary care health providers increasingly are seen as ideally positioned to promote mental health, prevent problems, identify needs early, and help correct problems.

The Latest Call to Primary Care Health Providers

Primary care health providers are called upon to help transform the way the nation thinks about and addresses the mental health of young people

The President's New Freedom Commission on Mental Health (2003) has delineated a significant role for primary care health providers in helping transform the way the nation thinks about and addresses the mental health of young people. Of its six goals, goals 1, 3, 4, and 6 especially underscore efforts where major involvement of the primary care health system is a necessity.

- *Goal 1 seeks to enhance the understanding of Americans that mental health is essential to overall health.*

In this respect the Commission specifically calls for

- > advancement and implementation of a national campaign to reduce the stigma of seeking care and a national strategy for suicide prevention
- > addressing mental health with the same urgency as physical health
- *Goal 2 is concerned that mental health care is consumer and family driven.*
- *Goal 3 focuses on eliminating disparities in mental health services.*

The commission stresses the need to

- > improve access to quality care that is culturally competent
- > improve access to quality care in rural and geographically remote areas
- *Goal 4 seeks to make early mental health screening, assessment, and referral to services common practice.*

To these ends, the Commission calls for

- > promoting the mental health of young children
- > improving and expanding school mental health programs
- > screening for co-occurring mental and substance use disorders and link with integrated treatment strategies
- > screening for mental disorders in primary health care, across the lifespan, and connect to treatment and supports
- *Goal 5 calls for delivery of excellent mental health care and accelerated research*

- *Goal 6 calls for use of technology to access mental health care and information.*

The call here is for

- > using health technology and telehealth to improve access and coordination of mental health care, especially for Americans in remote areas or in underserved populations
- > developing and implementing integrated electronic health record and also personal health information systems.

What is evident is that operationalizing the recommendations cited above and, thus, accomplishment of the goals cannot be achieved without the considerable participation of professionals who work in primary health care settings, schools, and a variety of community venues.

Mental Health: What are we talking about?

There is a widespread tendency for the topic of mental health to be reduced to mental illness, disorders, or problems. When this occurs, mental health is de facto defined as the absence of these problems and there is a lack of emphasis on the enterprise of promoting positive social and emotional development for all.

To address this definitional problem, the following national reports are helpful:

- The report of the Surgeon General’s Conference on Children’s Mental Health (2001) vision statement: “Both the promotion of mental health in children and the treatment of mental disorders should be major public health goals.” This statement uses the term mental health in ways that are consistent with definitional efforts to use mental health as a positive concept.
- The Institute of Medicine (1994) defines health as “state of well-being and the capability to function in the face of changing circumstance.”
- A similar effort to contrast positive health with problem functioning is seen in SAMHSA’s Center for Mental Health Services glossary of children’s mental health terms. In that source, mental health is defined as “how a person thinks, feels, and acts when faced with life’s situations.... This includes handling stress, relating to other people, and making decisions.” SAMHSA contrasts this with mental health problems. And, the designation mental disorders is described as another term used for mental health problems. (They reserve the term mental illness for severe mental health problems in adults).

- A more recent effort to emphasize mental health is found in *Bright Futures in Practice: Mental Health* (National Center for Education in Maternal and Child Health, 2002) which states: “Mentally healthy children and adolescents develop the ability to experience a range of emotions (including joy, connectedness, sadness, and anger) in appropriate and constructive ways: possess positive self-esteem and a respect for others; and harbor a deep sense of security and trust in themselves and the world. Mentally healthy children and adolescents are able to function in developmentally appropriate ways in the contexts of self, family, peers, school, and community. Building on a foundation of personal interaction and support, mentally healthy children and adolescents develop the ability to initiate and maintain meaningful relationships (love) and learn to function productively in the world (work).”

For most youngsters, psychopathology is not common; the majority experience psychosocial problems stemming from socio-cultural and economic factors

Another important definitional problem is the tendency to designate “everyday” emotional and behavioral problems as disorders (e.g., translating commonplace behavior into “symptoms” and formal psychiatric diagnoses). For children and adolescents, the most frequent problems are psychosocial, and the genesis of the problems for the majority are socio-cultural and economic. This, of course, in no way denies that there are children for whom the primary factor instigating a problem is an internal disorder. The point simply recognizes that, comparatively, these youngsters constitute a relatively small group (see Center for Mental Health in Schools, 2003). Biases in definition overemphasizing this group narrow what is done to classify and assess problems, prevent problems, and intervene early after onset.

If the only response to a family’s concerns is to diagnose a disorder, large numbers of misdiagnoses are inevitable and the response to problems often will be inappropriate and expensive. Furthermore, the amount of misdiagnoses will continue as a major contaminate in research and training. In contrast, each year a great many parents and teachers identify large numbers of children (e.g., of kindergarten age) soon after the onset of a problem. This “first level screen” can be helpful in initiating supportive accommodations that can be incorporated into regular school and home practice. By addressing these problems through “response to intervention” many will receive the support needed to overcome the problems. Those who do not respond to these early interventions can be further assessed and appropriately treated.

The way to reduce misdiagnoses and misprescriptions is to place mental illness in perspective with respect to psychosocial problems and to broaden the definition of mental health to encompass the promotion of social and emotional development and learning. For the most effective interventions, mental health must be seen as both

- a) promoting healthy development as one of the keys to preventing mental health and psychosocial problems, and

If we could only integrate all the fragmented services ... provided ... youngsters, we could really make a difference.
Mary Jane England, MD

- b) a comprehensive focus on addressing barriers to development and learning. This requires interventions that
- directly facilitate physical, social and emotional development
 - inoculate against mental health and psychosocial problems,
 - identify, correct, or at least minimize problems as early after their onset as is feasible
 - provide for coordinated treatment of severe and chronic problems.

While screening and diagnosing problems and providing clinical services are fundamental to any mental health system, just identifying problems is insufficient. Also required are interventions that assist youngsters and their support systems to acquire knowledge, skills, and attitudes that enable them to prevent problems and deal with those that can't be avoided.

In pursuing intervention, current policy and practice agendas also stress that it is essential to

- *achieve results*
- *involve and mobilize consumers and enhance partnerships with those at home, at school, and in the community*
- *confront equity and human diversity considerations*
- *balance the focus on addressing problems with an emphasis on promoting health and development of assets*
- *include evidence-based strategies.*

Primary Care Health Providers Need a Broad Intervention Focus on Mental Health

A broad intervention framework for mental health intervention builds on the broadest definitions discussed above and focuses on working with youngsters, families, schools, and communities. As already indicated, this encompasses interventions to promote, prevent, and intervene as early after problem onset as is feasible, as well as involvement with severe and chronic problems.

Promotion

Promoting healthy development, well-being, and a value-based life are important ends unto themselves and are keys to preventing mental health and psychosocial problems. Such interventions focus not only on strengthening individuals, but also on enhancing nurturing and supportive conditions at school, at home, and in the neighborhood. All this includes a particular emphasis on increasing opportunities for personal development and empowerment by promoting conditions

Promoting healthy development is one of the keys to preventing mental health and psychosocial problems

that foster and strengthen positive attitudes and behaviors (e.g., enhancing motivation and capability to pursue positive goals, resist negative influences, and overcome barriers).

Promotion interventions encompass efforts to enhance knowledge, skills, and attitudes that have potential for fostering social and emotional development, a healthy life-style, and well-being. Examples of how primary care health providers can promote mental health include:

- providing waiting room resources (including family resource specialists) that offer youngsters and their families ideas for promoting healthy social and emotional development
- using in-house media to inform families (e.g., newsletters, listservs, webpages)
- providing specific information and feedback to youngsters and their families about how to enhance strengths (including group presentations and well-child support groups)
- encouraging youngsters and their families to engage with school and community opportunities to promote healthy social and emotional health (e.g., special events and campaigns to disseminate mental health information, curricular approaches, policy advocacy)

Prevention

As indicated above promoting healthy development is one facet of prevention. Other facets involve addressing *risk factors* and enhancing *protective buffers*. Again, the intervention focus not only is on individuals, but on conditions at home, in the neighborhood, and at school. It is well to remember that research indicates that the primary causes for most youngsters' emotional, behavior, and learning problems are external factors (e.g., related to neighborhood, family, school, and/or peer factors such as extreme economic deprivation, community disorganization, high levels of mobility, violence, drugs, poor quality or abusive caretaking, poor quality schools, negative encounters with peers, inappropriate peer models, immigrant status). For a few, problems stem from individual disorders and differences (e.g., medical problems, low birth weight/neurodevelopmental delay, psychophysiological problems, difficult temperament and adjustment problems). For more on this see "A Good Beginning: Sending America's Children to School with the Social and Emotional Competence They Need to Succeed" (<http://www.nimh.nih.gov/childp/prfan.cfm>).

Protective factors are conditions that *buffer* against risk factors. Such conditions may prevent or counter risk producing conditions by fostering individual, neighborhood, family, school, and/or peer strengths, assets, and coping mechanisms. The intervention focus is on developing special relationships and providing special assistance and accommodations. The term *resilience* usually refers to an individual's ability to cope in ways that buffer.

Note that while prevention encompasses efforts to promote well-being, the primary focus is on interventions to reduce risks and enhance buffers either through programs designed for the general population (often referred to as universal interventions) or for selected groups designated at risk.

Innoculate against mental health and psychosocial problems

Primary care health providers can encourage youngsters and their families to take advantage of opportunities in the schools and community to prevent problems and enhance protective buffers (e.g., resilience). Examples include enrollment in

- direct instruction designed to enhance specific areas of knowledge, skills, and attitudes on mental health matters
- enrichment programs and service learning opportunities at school and/or in the community
- after school youth development programs

In addition, primary health care professionals have a role to play in public health initiatives designed to strengthen families and communities.

Early Screening, Referral, and Monitoring

The report from the President's New Freedom Commission on Mental Health states

Quality screening and early intervention will occur in both readily accessible, low-stigma settings, such as primary health care facilities and schools, and in settings in which a high level of risk exists for mental health problems.... Both children and adults will be screened for mental illnesses during their routine physical exams. For consumers of all ages, early detection, assessment, and links with treatment and supports will help prevent mental health problems from worsening....

Mental health screening is a standard for care for all children eligible for services under Medicaid's Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program. Beyond that, there is a good evidence base and standards of practice guidelines for the role of primary care providers in identifying mental health problems early after onset, referring families to resources for early intervention, and monitoring progress. For example, the American Medical Association's *Guidelines for Adolescent Preventive Services* (GAPS) includes recommendations for screening biomedical, behavioral, and emotional conditions (see <http://www.ama-assn.org>). Among the recommendations are:

"All adolescents should be asked annually about

- learning or school problems
- behaviors or emotional that indicate recurrent or severe depression or risk of suicide
- their use of alcohol and other abusable substances, and about their use of over-the-counter or prescription drugs for nonmedical purposes, including anabolic steroids
- a history of emotional, physical, and sexual abuse

Identify, correct, or at least minimize problems as early after onset as is feasible

All adolescents should be screened annually for eating disorders and obesity by determining weight and stature, and asking about body image and dieting patterns."

About mental health screening. Formal screening to identify students who have problems or who are "at risk" is accomplished through individual or group procedures. Most such procedures are *first-level* screens and are expected to over-identify problems. That is, they identify many students who do not really have significant problems (false positive errors). This certainly is the case for screens used with infants and primary grade children, but false positives are not uncommon when adolescents are screened. Errors are supposed to be detected by follow-up assessments.

Because of the frequency of false positive errors, serious concerns arise when screening data are used to diagnose students and prescribe remediation and special treatment. Screening data primarily are meant to sensitize responsible professionals. No one wants to ignore indicators of significant problems. At the same time, there is a need to guard against tendencies to see *normal variations* in students's development and behavior and other facets of human diversity as problems.

First level screens do not allow for definitive statements about a student's problems and need. At best, most such screening procedures provide a preliminary indication that something may be wrong. In considering formal diagnosis and prescriptions for how to correct the problem, one needs data from assessment procedures that have greater validity. It is essential to remember that many factors found to be symptoms of problems also are common characteristics of young people, especially in adolescence. This means extreme caution must be exercised to avoid misidentifying and inappropriately stigmatizing a youngster. It is easy to overestimate the significance of a few indicators.

Since the mental health problems seen in primary health care offices range from mild and transient to severe and chronic, what criteria are available to guide primary care providers in determining the correct diagnosis and the best intervention?

The American Academy of Pediatrics publishes *The Classification of Child and Adolescent Mental Diagnoses in Primary Care* – Diagnostic and Statistical Manual for Primary Care (DSM-PC). This document provides a broad template for understanding and categorizing behavior. For each of the major categories, behaviors are described to illustrate what should be considered

- a Developmental Variation
- a Problem
- a Disorder (using DSM criteria)

Information is also provided on the environmental situations and stressors that exacerbate behavior and on commonly confused symptoms. The material is presented in a way that can be shared with families, so that they have a perspective with respect to concerns they, or the school, identifies.

Schools as Referral and Monitoring Resources. One of the most cost effective referrals can be to connect families with relevant resources at school. Schools often have a range of programs and services designed to provide support and to follow up when there is an early indication of problems (see Appendix). Schools also do in-depth assessments of students whose learning, behavior, or emotional problems might qualify for special education. And, school staff are a key source of information on progress and ongoing problems. To this end, an invaluable intervention is to instruct families about how to identify and involve someone in the school to monitor and report progress and even to provide case/care management. It also is useful to make a direct connection with student support staff in the district and local schools to facilitate referrals and information exchanges and to access information about accommodations and services that can be provided for students with special needs.

Direct Interventions

A recent study of primary care found 18% of children received a clinician-identified psychosocial diagnosis. The most frequent diagnoses were Attention-Deficit/hyperactivity disorder and behavioral/conduct problem. Only 16% of those diagnosed were referred to mental health care providers. The researchers conclude that most psychosocial problems are initially managed in primary care without referral (Rushton, et al, 2002).

The importance of primary care professionals in promoting children's and adolescent's mental health is well established.

Bright Futures in Practice

Research indicates that the most likely management strategies primary care health providers use when psychosocial or mental health problems are identified are advice or reassurance, consultations with school or a colleague, referral to another professional, and follow up interventions, depending on the severity of the problems (Brugman, et al, 2001). In addition, some take a didactic approach to enhance specific areas of knowledge, skills, and attitudes on mental health matters. Others help with appeals when there is denial of reimbursement for mental health services and advocate for parity.

Primary care health providers, of course, continue to play a role in the increased prescription of psychotropic medication for children and adolescents.¹ Since many children who take medications require them during the school day, here is another area health care providers, school staff, and families need to work together to produce the appropriate and effective outcomes for youngsters (see the American Academy of Pediatricians, 2003). Families and schools are major sources of information for decision making about medication. They provide data that helps clarify whether medication is needed and whether dosages are producing positive and negative effects. Such information is used to titrate, change, and terminate medication.

In general, any health professional working with youngsters with learning, behavior, and emotional problems must consider ways to address the impact of school and family. With respect to the school, the need is to work through families to be sure that appropriate accommodations and "prereferral interventions" are made at school. In keeping with the principle of using the least intervention needed, there is an increasing emphasis in schools on using *Response to Intervention* (RTI) as an assessment strategy to determine whether there really is a need for a specific diagnoses and specialized treatment. It is widely recognized that schools need to address a variety of school-related factors before they suggest that there is something wrong "inside" a student.

With a view to enhancing the capacity of primary care health professionals to address the mental health and psychosocial problems they most frequently encounter, *Bright Futures in Practice: Mental*

¹It should be noted that the increase in the use of psychotropic medication for children has been a recent focus of the media and of the federal government. Studies indicate that between 1990-1995 the number of children aged 2 through 4 taking psychotropic drugs increased by 50% (Zito, et al 2000). The number of children prescribed stimulant therapy for attention-deficit/ hyperactivity disorder increased by threefold between 1990-1995 (Robinson, 1999). In October, 2003, the U.S. Food and Drug Administration issued a public health advisory to health care professionals on use of antidepressant drugs with pediatric patients (<http://fda.gov/cder/drug/advisory/mdd.htm>).

Health (National Center for Education in Maternal and Child Health, 2002) offers sets of suggested interventions.² These are presented in the context of youngster, family, and community and focus on:

- Guidelines for crisis intervention
- Problems that require immediate evaluation
- Interventions that may be implemented at the problem stage, before disorders develop
- When to consider referring a child, adolescent, or family to a mental health professional
- Types of referral services to consider (e.g., psychological testing; medication; individual, group, and family therapy)
- Collaboration with mental health professionals and community organizations (e.g., schools; human services agencies)

Toward Collaborative Care

From the report of the President's New Freedom Commission on Mental Health:

The Commission suggests that collaborative care models should be widely implemented in primary health care settings and reimbursed by public and private insurers.... The Commission notes that the Federal government could better coordinate the funding and the clinical care provided by publicly funded community health clinics...The Commission recommends that Medicare, Medicaid, The Department of Veterans Affairs, and other Federal and State-sponsored health insurance programs and

²With respect to the mental health of children and adolescents, there are many sources for information and materials. Direct access to many key mental health documents is provided by the federal government through the Center for Mental Health Services (CMHS) – <http://www.mentalhealth.samhsa.gov/cornerstone/> Our Center's website – <http://smhp.psych.ucla.edu> – provides a special "Gateway" and a "Quick Find" search menu offering ready access to most of the major centers, agencies, documents, and materials. The Quick Find search also enables free access to the wealth of resources we have developed related to intervention concerns (e.g., information, materials, and tools to aid in promoting social and emotional development; violence prevention; suicide prevention; screening and assessment of behavior, emotional, and learning problems; and much more).

private insurers identify and consider payment for components of evidence-based collaborative care, including:

- Case management
- Disease Management
- Supervision of case managers, and
- Consultations to primary care providers by qualified mental health specialists that do not involve face-to-face contact with clients."

Our training programs need to be adapted so that they also are collaborative....

Ellen Perrin, MD

From *Bright Futures in Practice: Mental Health*:

Primary care health professionals will address the mental health of families most effectively if they coordinate efforts with other professionals who work with children and adolescents in an interdisciplinary team approach. In the context of family, friends, school, and community, children and adolescents interact with a broad range of other professionals (e.g., teachers, faith leaders, psychologists, counselors, social workers, dentists) who can play significant roles in promoting a child's or adolescent's mental health.

While not a guarantee of enhanced continuity of care, collaborative care is certainly essential to reducing fragmentation and redundancy, should contribute to improvements in availability and access, and provide a better balance between addressing problems and promoting health. Overcoming today's limitations and meeting tomorrow's challenges requires a clear picture of where we want to go and how we can get there. Over the next few years, the fundamental changes that already are underway will transform how primary care health providers meet the needs of the youngsters and families they serve. It is time for all those involved to play a proactive role in ensuring the transformation results in better outcomes for all concerned.

Cited References and a Few Others

- American Academy of Pediatrics (2003). *Guidelines for the Administration of Medication in School* – <http://www.aap.org/policy/s010105.html>
- American Academy of Pediatrics (2004). School-Based Mental Health Services, Committee on School Health. *Pediatrics* Vol. 113 No. 6, pp. 1839-1845
- American Academy of Pediatrics.
>*Improving substance abuse prevention, assessment, and treatment financing for children and adolescents*. – <http://aap.org/policy/9930html>
- >*Indications for Management and referral of patients involved in substance abuse* – <http://www.aap.org/policy.RE9947.html>
- American Academy of Pediatrics. Committee on Psychosocial Aspects of Child and Family Health. – <http://www.aap.org/visit/cmt29.htm>
- American Medical Association. *Guidelines for adolescent preventive services*. – <http://www.ama-assn.org>
- Aos, S., Lieb, R., Mayfield, J., Miller, M., & Pennuci, A. (2004). *Benefits and costs of prevention and early intervention programs for youth*. Retrieved January 25, 2006, from the Washington Institute for Public Policy: <http://www.wsipp.wa.gov/>
- Bernal, P., Estroff, D., Abouadarham, J. et al, (2000) Psychosocial Morbidity: The economic burden in a pediatric health maintenance organization sample, *Archives of Pediatrics & Adolescent Medicine*, 154, 261-266.
- Borowsky, I. et al, (2003) Brief psychosocial screening at health supervision and acute care visits, *Pediatrics*, 112, 129-133.
- Brugman, E. et al, (2001). Identification and management of psychosocial problems by preventive child health care, *Archives of Pediatrics & Adolescent Medicine*, 155, 462-469
- Center for Disease Control and Prevention. *Early Periodic Screening, Diagnosis, and Treatment*. – <http://www.cdc.gov>
- Center for Mental Health in Schools (2003). *Youngster's mental health and psychosocial problems: What are the data?* Author at UCLA.
- Foster, S., Rollefson, M., Doksum, T., Noonan, D., Robinson, G., & Teich, J. (2005). *School Mental Health Services in the United States, 2002-2003*. DHHS Pub. No. (SMA) 05-4068. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. <http://www.mentalhealth.samhsa.gov/media/ken/pdf/SMA05-4068/SMA05-4068.pdf>
- Glied, S. (1998) Too little time? The recognition and treatment of mental health problems in primary care, *Health Services Research*, 33, 891-910.
- Institute of Medicine (1979). *Mental health services in primary care settings: Report of a conference April 2-3, 1979*. Washington, D.C.: DHHS Publication No. (ADM) 80-995.

- Institute of Medicine (1994). *Reducing risks for mental disorders: frontiers for preventive intervention*. Washington, DC: National Academy Press.
- Jellinek, M. et al, (1999) Use of the pediatric symptom checklist to screen for psychosocial problems in pediatric primary care, *Archives of Pediatrics & Adolescent Medicine*, 153, 254260.
- Kelleher, K. (2002) Primary care and identification of mental health needs. In U. S. Public Health Service, *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda*, (pp. 21-22). Washington, DC
- Lesesne, C, et al, (2003) Attention-deficit/hyperactivity disorder in school-aged children: association with maternal mental health and use of health care resources, *Pediatrics*, 111, 1232-1237.
- National Center for Education in Maternal and Child Health, (2002) *Bright Futures in practice: Mental Health*. Georgetown University. – <http://www.brightfutures.org/mentalhealth/index.html>
- National Institute for Health Care Management. (2005). *Children's mental health: An overview and key considerations for health system stakeholders*. Washington, DC: Author.
- Nelson, J. R., Martella, R. M., & Marchand-Martella, N. (2002). Maximizing student learning: The effects of a school-based program for preventing problem behavior. *Journal of Emotional and Behavioral Disorders*, 10(1), 136-148
- Luoma, J. B., Martin, C. E. & Pearson, J. L. (2002) Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry*, 159, 909-916.
- Maternal and Child Health Bureau. *Early and continuous screening*. – <http://www.mchb.hrsa.gov>
- Palermo, S. (1997) A review of behavioral screening practices in pediatric settings: do they pass the test? *Journal of Developmental and Behavioral Pediatrics*, 18, 183-194.
- President's New Freedom Commission on Mental Health (2003). *Achieving the Promise: Transforming Mental Health Care in America. Final Report*. DHHS Pub. No. SMA-03-3832. Rockville, MD: 2003. <http://www.mentalhealthcommission.gov/reports/reports.htm>
- Robinson, L. et al (1999) National trends in the prevalence of attention-deficit/hyperactivity disorder and the prescribing of methylphenidate among school-age children: 1990-1995. *Clinical pediatrics*, 38, 209-217.
- Rushton, J. et al, (2002) Primary care referral of children with psychosocial problems, *Archives of Pediatrics & Adolescent Medicine*, 156, 592-598.
- Searight, H. et al, (2001) Conduct Disorder: Diagnosis and treatment in primary care, *American Family Physician*, 63, 1579-88.
- Son, S & Kirchner, J. (2000) Depression in children and adolescents, *American Family Physician*, 62, 2297-2308.
- Steinberg, A., Godomski, A. & Wilson (1999). *Children's mental health: The changing interface between primary and specialty care*. Children's Mental Health Alliance Project, University of Pennsylvania.
- Surgeon General's Conference on Children's Mental Health (2001). – *Report* – <http://www.surgeongeneral.gov/topics/cmh/childreport.htm#ack>

Tolan, P. H., & Dodge, K. A. (2005). Children's mental health as a primary care and concern: A system for comprehensive support and service. *American Psychologist*, 60(6), 601-614.

Wolraich, M.L., Felice, M.E., & Drotar, D. (Eds.) (1996). *The classification of child and adolescent mental diagnosis in primary care: Diagnostic and statistical manual for primary care (DSM-PC). Child and adolescent version*. Elk Grove Village, ILL: American Academy of Pediatrics.

Zito, J. et al (2000) Trends in the prescribing of psychotropic medications to preschoolers, *Journal American Medical Association*, 283, 1025-30

Appendix

What Schools Do Related to Mental Health

It is, of course, not a new insight that psychosocial and mental health concerns must be addressed if schools are to function satisfactorily and students are to learn and perform effectively. It has long been acknowledged that a variety of such problems affect learning in profound ways. Moreover, these problems are exacerbated as youngsters internalize the debilitating effects of performing poorly at school and are punished for the misbehavior that is a common correlate of school failure. Because of this, school policy makers, have a lengthy, albeit somewhat reluctant, history of trying to assist teachers in dealing with problems that interfere with schooling.

Currently, there are about 90,000 public schools in about 15,000 districts. Over the years, most (but obviously not all) schools have instituted policies and programs designed with a range of mental health and psychosocial concerns in mind. Some directly support school counseling, psychological, and social service programs and personnel; others connect community programs and personnel with schools. As a result, most schools have some programs to address a range of mental health and psychosocial concerns, such as school adjustment and attendance problems, substance abuse, emotional problems, relationship difficulties, violence, physical and sexual abuse, delinquency, and dropouts. And, there is a large body of research supporting the promise of much of this activity.¹

School-based and school-linked programs have been developed for purposes of early intervention, crisis intervention and prevention, treatment, and promotion of positive social and emotional development. Some programs are provided throughout a district, others are carried out at or linked to targeted schools. The interventions may be offered to all students in a school, to those in specified grades, or to those identified as "at risk." The activities may be implemented in regular or special education classrooms or as out of classroom programs and may be designed for an entire class, groups, or individuals. There also may be a focus on primary prevention and enhancement of healthy development through use of health education, health services, guidance, and so forth – though relatively few resources usually are allocated for such activity. (See the next page for an Exhibit highlighting five major *delivery mechanisms and formats*).

School districts use a variety of their own *personnel* to address student support concerns. These may include “pupil services” or “support services” specialists such as psychologists, counselors, social workers, psychiatrists, and psychiatric nurses, as well as a variety of related therapists. Such specialists tend to focus on students seen as problems or as having problems. Their many *functions* can be grouped into three categories (1) direct services and instruction, (2) coordination, development, and leadership related to programs, services, resources, and systems, and (3) enhancement of connections with community resources. Despite the range of activity, it remains the case that too little is being done in most schools, and prevailing approaches are poorly conceived and are implemented in fragmented ways.

¹For relevant references, go to

- (1) <http://smhp.psych.ucla.edu/qf/references.htm>
- (2) <http://smhp.psych.ucla.edu/pdfdocs/briefs/BarriersBrief.pdf>
- (3) <http://smhp.psych.ucla.edu/pdfdocs/aboutmh/annotatedlist.pdf>
- (4) <http://smhp.psych.ucla.edu/pdfdocs/policymakers/cadreguidelines.pdf>
- (5) <http://www.nationalguidelines.org/>

Exhibit: Delivery Mechanisms and Formats for MH in Schools

The five mechanisms and related formats are:

- 1. *School-Financed Student Support Services*** – Most school districts employ pupil services professionals such as school psychologists, counselors, school nurses, and social workers to perform services related to mental health and psychosocial problems (including related services designated for special education students). The format for this delivery mechanism tends to be a combination of centrally-based and school-based services.
- 2. *School-District Mental Health Unit*** – A few districts operate specific mental health units that encompass clinic facilities, as well as providing services and consultation to schools. Some others have started financing their own School-Based Health Centers with mental health services as a major element. The format for this mechanism tends to be centralized clinics with the capability for outreach to schools.
- 3. *Formal Connections with Community Mental Health Services*** – Increasingly, schools have developed connections with community agencies, often as the result of the school-based health center movement, school-linked services initiatives (e.g., full service schools, family resource centers), and efforts to develop systems of care (“wrap-around” services for those in special education). Four formats and combinations thereof have emerged:
 - co-location of community agency personnel and services at schools – sometimes in the context of School-Based Health Centers partly financed by community health organizations
 - formal linkages with agencies to enhance access and service coordination for students and families at the agency, at a nearby satellite clinic, or in a school-based or linked family resource center
 - formal partnerships between a school district and community agencies to establish or expand school-based or linked facilities that include provision of MH services
 - contracting with community providers to provide needed student services
- 4. *Classroom-Based Curriculum and Special Out of Classroom Interventions*** – Most schools include in some facet of their curriculum a focus on enhancing social and emotional functioning. Specific instructional activities may be designed to promote healthy social and emotional development and/or prevent psychosocial problems such as behavior and emotional problems, school violence, and drug abuse. And, of course, special education classrooms always are supposed to have a constant focus on mental health concerns. Three formats have emerged:
 - integrated instruction as part of the regular classroom content and processes
 - specific curriculum or special intervention implemented by personnel specially trained to carry out the processes
 - curriculum approach is part of a multifaceted set of interventions designed to enhance positive development and prevent problems
- 5. *Comprehensive, Multifaceted, and Integrated Approaches*** – A few school districts have begun the process of reconceptualizing their piecemeal and fragmented approaches to addressing barriers that interfere with students having an equal opportunity to succeed at school. They are starting to restructure their student support services and weave them together with community resources and integrate all this with instructional efforts that effect healthy development. The intent is to develop a full continuum of programs and services encompassing efforts to promote positive development, prevent problems, respond as early-after-onset as is feasible, and offer treatment regimens. Mental health and psychosocial concerns are a major focus of the continuum of interventions. Efforts to move toward comprehensive, multifaceted approaches are likely to be enhanced by initiatives to integrate schools more fully into systems of care and the growing movement to create community schools. Three formats are emerging:
 - mechanisms to coordinate and integrate school and community services
 - initiatives to restructure student support programs and services and integrate them into school reform agendas
 - community schools