Psychiatric problems of youth in primary care: A review

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Introduction

The role of primary care clinicians in the detection, diagnosis, treatment, and outcome monitoring of mental illness in children and adolescents has long been documented. So too has the fact that the vast majority of medical care given to children with psychiatric illness is by primary care clinicians, not child and adolescent psychiatrists. As specialty resources dwindle, or fail to keep pace with the complexities in the understanding of the etiology and treatments of psychiatric illnesses, primary care clinicians become the 'go to' people after brief exposure to specialty care or following episodic consultation.

The goal of this paper is to discuss—by disease category—tools for detection and assessment, treatments, and issues in collaboration between primary care and specialty care. The advice given here is based in evidenced based medicine, clinical best practices, and practice parameters as suggested by professional academies.

General Screens

Attention has been given to the general screening for psychiatric problems in the primary care environment. Within pediatrics, the concept of the "medical home" was proposed in 1967, and efforts to standardize and implement this plan for the screening of youth and coordination of care continue.[1] A survey of pediatricians performed by Cheng et al revealed that the percentage of pediatricians using screening scales increased from 38% in the 1980s to 72% in 1994.[2]

The Brief Infant-Toddler Social and Emotional Assessment (BOTSEA) has been shown to be viable in a primary care environment to identify children with problems in the development of competence in social and behavioral development.[3] Those children identified by this assessment were confirmed 1 year after the first screen. BOTSEA addresses the concept of screening in this younger age group quite well.

The Pediatric Symptom Checklist (PSC) has been used extensively in several review studies for children 4-18 years of age.[4,5] The PSC is a 35-item questionnaire completed by a parent that takes less than 5 minutes. Data shows that it may over-identify symptoms and problems, but not to such an extent that it is invalidated. There has been an increase in the referral to mental health services in cities where the PSC has been used, due perhaps in part to the overidentification, and this may tax an already limited system. However, the benefit of identifying youth in need of treatment overshadows the false positive rate.

Other screening instruments reported in the literature include the Diagnostic Interview Schedule for Children (DISC). DISC is a lengthier tool with a wider range of sensitivities, but is more cumbersome for routine screening.[6,7] One of the benefits of considering a tool such as the DISC is its concordance with the Diagnostic and Statistical Manual for Primary Care (DSM), which has also been demonstrated to be a useful tool for detection and diagnosis.[8] Using this DSM variant underscores the collaborative aspects of detection, diagnosis, and treatment between primary and specialty care.

Alcohol and Other Drug Abuse

There has been a consistent push to have primary care physicians be more aggressive in the detection of alcohol and other drug abuse (AODA) in youth. Lee et al demonstrated that the rate of detection of alcohol use in health plan populations was only 11% of the community prevalence rate.[9] Many reasons are suggested for this deficit. Recommendations for screening include the development of a positive relationship with mutually respectful questioning; routine use of the CAGE or AUDIT screening questions for alcohol; and use of the longer POSIT for other drug abuse.[10] Referral to addiction medicine can then be made with

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greater certainty and a solidly-defined treatment goal (abstinence, harm reduction, etc.) established for the collaboration with specialty and primary care.

Suicide

The assessment of suicidality in primary care is a careful but brief procedure. The need to be sensitive to this is not trivial. Suicide is the third leading cause of death of adolescents, but it is preventable. According to the Centers for Disease Control and Prevention, the point prevalence of suicidal ideation among high school students is 10%, with 30% cumulative risk by graduation. Actual attempts appear to be less than 1%, with a smaller completion ratio.[11] The American Academy of Pediatrics established guidelines for the assessment of suicidality and correctly focused on the key elements of probability: lethality of plan, anticipated risk of rescue, presence of substance use/abuse, being male, history of anxiety or a mood disorder, previous attempts, completed suicide in the family, and presence of firearms in the home.[12] The assessment of these elements can occur by structured exam and use of scales, but none of the devices presently available are as effective as a solid clinical interview.[13] In many practice environments the presence of a complaint of suicidal ideation requires a consult with psychiatry; this is highly recommended given liability issues and the potential for use of inpatient care. Initiating therapy with medications only in a suicide assessment is contraindicated. The development of a comprehensive treatment plan is critical for the safety and care of the suicidal youth. Frequently, even upon discharge from inpatient care, this plan involves close collaboration between the mental health and the primary care providers.

Depression

The assessment and treatment of depression in youth has become both easier to detect more accurately, and more complicated to treat. Detection is enhanced by the use of DSM criteria in a clinical interview. Interview alone may be sufficient to detect the 8%-10% of youth suffering from depression. Also, the use of scales such as the Childhood Depression Inventory (CDI), or the Hamilton or Beck depression rating scales provide quick placement of a patient along a continuum of risk for the illness. At our facility, we use the CDI since it is briefer and is useful in research as well as clinical care.

Any discussion of the assessment of depression in a primary care environment is incomplete without considering the medical workup. Thyroid studies, cardiac exam, and pulmonary function assessment—especially with reactive airway disease—must be done and alcohol and other drug abuse and pregnancy must be looked for.

The treatment of depression has become more complicated since the Federal Drug Administration (FDA) took action with the pharmaceutical industry last year. Selective serotonin reuptake inhibitor (SSRI) medications have long been the treatment of choice for depression in youth.[14] Recent data have suggested problems with this recommendation: the SSRIs may not be efficacious, there may be an increased risk for suicidal ideation or suicidal/parasuicidal behavior, and side effects may worsen the depression. The data being considered by the FDA have suggested that fluoxetine has efficacy without increased risk, and sertraline trends toward efficacy with little risk.[15] These 2 medications—given their ease and safety of use versus other alternatives, including no medication—have become a mainstay of treatment.

In mid-October 2004, the FDA approved an advisory committee recommendation that a black box warning be placed on all antidepressant medication. This warning is to acknowledge the above data and the findings of a Columbia University task force, which suggest that all antidepressants carry a 2-fold increase in the risk of suicide when used to treat depression in children and adolescents. Parameters for using these medications are outlined in the warning, including face-to-face assessments of suicidality at least once per week for the first 4 weeks of treatment. Clearly, given the vagaries of reimbursement schedules and appointment availability, primary care will have a significant role in this monitoring.

There may be an emerging reliance on augmentation strategies (mood stabilizers, antipsychotics, beta blockers, etc.) to enhance this narrow range of primary medication options. Given the complexities of these treatments, and a potential return to a priority of psychological therapies, the collaboration with specialty care remains critical for active management of the index depression, the monitoring for outcomes, and the likelihood of relapse.

Bipolar Disorder

The rates of bipolar disorder among youth appear to equal those of adults, with an overall rate of 0.8%, with a greater incidence with increasing age. In fact, 20% of adults with a diagnosis of bipolar disorder had their first manic event in adolescence, and 0.5% in childhood. The need for early recognition and intervention is clear. There are some clear risk factors that facilitate the recognition of bipolarity. Some of these are familial factors. If one parent has bipolar disorder, there is a 30% risk for the child. If both par-

ents are bipolar, the risk increases to 70%.[15] There are additional risks associated with having been depressed, especially before puberty, and with having an ADHD diagnosis, irrespective of treatment for that disorder. Characteristic symptoms of prepubertal onset bipolar disorder include continuous cycling (many times per day) lasting for up to 7 years, mixed onset (depression and mania), treatment resistance, and the hallmark symptoms of elevated or elated mood, grandiosity, and hypersexuality.[16,17]

Screening tools for mania have been assessed for accuracy and utility.[18] The general screening tool by Achenbach, the Child Behavioral Check List (CBCL) parent version appears to capture requisite symptoms for diagnostic certainty of externalizing disorders. Retesting with a mania-specific scale is not indicated. The CBCL is, however, a lengthy form. For confirmation of the clinical impression of mania, the Parent Young Mania Rating Scale is adequate for younger patients; the Parent General Behavioral Inventory is more successful with other patients.

Medical evaluation of the manic youth should include those studies already mentioned for the assessment of depression. In addition, given the comorbid tendency for rage and being the victim and perpetrator of violence, a sleep-deprived EEG should be considered.

Treatment strategies for mania in youth have been refined to suggest that if there is mania without psychosis, use a mood stabilizer alone; mania with psychosis, use a mood stabilizer plus a second generation antipsychotic (SGA); prominent irritability, use a SGA alone.[19] The mood stabilizer used most continues to be lithium, followed by divalproex; the SGA used most is risperidone.

The collaborative issues raised by the diagnosis of mania/bipolar disorder are tied to the complexity of the medication therapy; most youth diagnosed are on 3.4 medications and have gone through 6.4 medication trials.[20] Both the scope of differential diagnoses (e.g. ADHD, anxiety, schizophrenia) and the changing nature of the primary disorder over the course of development require close collaboration and regular re-consultation with specialty care.

Anxiety

Anxiety disorders are the most common disorders in community, primary care, and psychiatric care populations of youth.[21] The most common forms of anxiety are the specific phobias. They require little assistance in detection and the treatments are well known. Additional anxiety disorders include generalized anxiety, panic, obsessive compulsive, agoraphobia, social phobia, and post-traumatic stress. In the primary care setting, these disorders are important to assess for several reasons: suffering is great, levels of impairment in daily functioning are non-trivial, delays in treatment can impede acquisition of developmental milestones—such as social skills—long past a time when skills need to be solidified for lifetime competence, anxiety may herald the disclosure of trauma or abuse necessitating mandated reporting, and untreated anxiety may sustain misuse of medical services.[22]

For all these reasons it is important to be sensitive to the possibility of anxiety. The detection of anxiety, however, is underperformed in primary care.[23] Some of this may be due to the internalizing aspect of the disorders making them less visible than the behavioral or externalizing difficulties. It may also be related to the rapid focus on problem solving with respect to the psychosocial problems that frequently surround anxious children, with less time being spent on articulating the extent of their need.

Despite the prevalence of these disorders in clinic populations, global screening of all patients is not recommended. Identifying at-risk patients by virtue of loss of function, parent report, or the presence of a known stressor will simplify detection. There are several screen tools discussed in the literature. The Pediatric Anxiety Rating Scale (PARS) is a 57-item physician-completed instrument that is sensitive to the detection of social phobia, separation anxiety, and generalized anxiety disorder.[22] This tool may be more advantageous than devices such as the Screen for Child Anxiety Related Emotional Disorders (SCARED), which are self-report scales. Affected children may lack the cognitive competence to complete these instruments without assistance, which may invalidate the interpretation. Other physician-completed scales are available, such as the Hamilton Anxiety Rating Scale, which is strong in the detection of physiologic and somatic complaints. The Children's Yale-Brown Obsessive Compulsive Scale is effective for that particular disorder.

Post Traumatic Stress Disorder (PTSD) scales have been available for some time. There is an attractiveness to having a rating scale for this disorder, given the magnitude of legal and longitudinal mental health problems (depression, suicidality, personality disorders) that tend to co-exist with this diagnosis. Careful clinical interview is critical to establishing the environment of safety needed to support patients and their families through this assessment, and having a rating scale

can ease the discomfort with this line of inquiry. The literature tends to support the use of the SCARED scale for its trauma index questions, or the Clinician Administered PTSD Scale for Children.[23,24]

An additional assessment for anxiety disorders is the medical evaluation for Pediatric Autoimmune and Neurological Disease After Strep (PANDAS.) This is more important to acquire if there is abrupt onset, a history of strep infection or carrier status, or a concurrent motor component.

The treatments for the anxiety disorders share similar themes. There is the return of control over the toxic stimulus to the patient by exposure therapies, cognitive behavioral strategies, and modification of the external environment as well as the internal. An additional mainstay is the reduction of the impulse/anxious burden or the enhancement of suppression capabilities through medication. Most evidenced-based recommendations encourage the use of both medication and therapy for anxiety disorders.

The collaboration issues in these disorders include the monitoring of treatment outcomes, the reduction of somatization by frequent primary care visits, the coordination of medical assessments, and the maintenance of a net of reassurance for the patient and family.

Attention Deficit/ Hyperactivity Disorder

The diagnosis and treatment of attention deficit/hyperactivity disorder (ADHD) in primary care has been discussed in the literature for decades. Although ADHD is present in less than 7% of the population, in some school settings up to 20% of children are being treated for it. The recommendations about diagnosis revolve around the careful clinical review of history with solid collateral data from teachers and family. Teachers appear to be the prime movers for ADHD evaluations and their data is essential to the diagnosis.[25] The data from across informants needs to be standardized in order to make the assessment robust for the child. Several rating instruments exist, some of which are peculiar to ADHD, while others have ADHD questions embedded in larger screens. The recommendation is to become familiar with the limitations and strengths of one rating scale. The most common scales are the Conner's and the Massachusetts General Hospital scales. Larger screens such as the Behavior Assessment System for Children (BASC), the Child Behavioral Checklist (CBLC), or formal neuropsychometric testing can be used. Physical devices such as the Test Of Variables of Attention (TOVA), or the Conner's Continuous Performance Test can be used for confirmatory testing but they lose specificity for mass screens.[26,27]

Once assessed, the treatment is now clearly defined by the MTA studies. Methylphenidate alone is sufficient; any other therapy with methylphenidate is also beneficial.[28,29] There is, of course, a need to be mindful of other stimulant medications in case methylphenidate is intolerable. The amphetamine products are next in line, with bupropion and atomoxetine being second-line medications. The collaboration issues with ADHD include the ongoing re-consultation for treatment appropriateness, and the assessment for any of the well known co-morbidities of bipolar disorder, anxiety, depression, and AODA.

Autism and Schizophrenia

These last two disorders are grouped together because of their historical joining in the literature, some similarities in presentation, and some shared aspects of treatment. Also, these are two disorders where the literature shows that parents bring the child to primary care early in a child's life—before age 2—with the concern that the child is 'different.'[30] These differences tend to be in the areas of emotional reciprocity, language, and socialization. Sometimes there are concerns about motor development as well, but these seem to be less specific indicators.[31] Significant findings for risk of schizophrenia include attention problems similar to ADHD, impaired visual-spatial skills, impaired memory as demonstrated on the digit span test, family history including grandparents, and perinatal infections.[32,33]

The role of primary care in the detection of these disorders for early intervention is critical. Sensitivity to the concerns of parents is a robust diagnostic device. The use of confirmatory scales can be done as well. For schizophrenia in youth, there has been the use of research grade tools such as the Kids Schedule for Affective Disorders and Schizophrenia and less labor-intense tools such as the Operational Checklist for Psychotic Illness.[34] General screens already mentioned (CBCL, PCS) will have some sensitivity to these diagnoses. Screening for autism is segregated by patient age. Eighteen-month-olds can be detected by the Checklist for Autism in Toddlers (CHAT), 2-year-olds with the modified version (M-CHAT), and 3-year-olds with the Pervasive Developmental Disorders Screening Test-II (PDDST-II.)[30,35]

Treatment for autism and childhood schizophrenia both have the goals of reducing the impairing symptoms of anxiety, irritability, aggression, and thought disorders; enhancing social and academic skill

acquisition; family education and support; and community advocacy. These goals become the medium for collaboration between primary and specialty care. Individual psychotherapy is contraindicated for both of these disorders. Recommended treatment includes psychosocial interventions, supportive and psychoeducational family services, typically school-based services, and referral to specialty clinics. Although no medications are approved for childhood treatment of these disorders, clinically-driven options include the second generation antipsychotics (with risperidone the most used and studied), SSRIs, mood stabilizers, and stimulants.

Conclusion

The goal of child and adolescent psychiatry includes the early detection of, and intervention with, mental and developmental disorders. Primary care services are frequently the first to assess these needs and are the providers with the greatest continuity of care. For these reasons, well-informed assessments, awareness of treatment options, and effective partnering between providers is essential to meet treatment goals.

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