

A Process for Developing Community Consensus Regarding the Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder

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ABSTRACT. There remain large discrepancies between pediatricians' practice patterns and the American Academy of Pediatrics (AAP) guidelines for the assessment and treatment of children with attention-deficit/hyperactivity disorder (ADHD). Several studies raise additional concerns about access to ADHD treatment for girls, blacks, and poorer individuals. Barriers may occur at multiple levels, including identification and referral by school personnel, parents' help-seeking behavior, diagnosis by the medical provider, treatment decisions, and acceptance of treatment. Such findings confirm the importance of establishing appropriate mechanisms to ensure that children of both genders and all socioeconomic, racial, and ethnic groups receive appropriate assessment and treatment. Publication of the AAP ADHD toolkit provides resources to assist with implementing the ADHD guidelines in clinical practice. These resources address a number of the barriers to office implementation, including unfamiliarity with *Diagnostic and Statistical Manual of Mental Disorders* criteria, difficulty identifying comorbidities, and inadequate knowledge of effective coding practices. Also crucial to the success of improved processes within clinical practice is community collaboration in care, particularly collaboration with the educational system. Such collaboration addresses other barriers to good care, such as pressures from parents and schools to prescribe stimulants, cultural biases that may prevent schools from assessing children for ADHD or may prevent families from seeking health care, and inconsistencies in recognition and referral among schools in the same system. Collaboration may also create efficiencies in collection of data and school-physician communications, thereby decreasing physicians' non-face-to-face (and thus nonreimbursable) elements of care. This article describes a process used in Guilford County, North Carolina, to develop a consensus among health care providers, educators, and child advocates regarding the assessment and treatment of children with symptoms of ADHD. The outcome, ie, a community protocol followed by school personnel and community physicians for >10 years, ensures communication and collaboration between educators and physicians in the assessment and treatment of children with symptoms of ADHD. This protocol has the potential to increase practice efficiency,

improve practice standards for children with ADHD, and enhance identification of children in schools. Perhaps most importantly, the community process through which the protocol was developed and implemented has an educational component that increases the knowledge of school personnel about ADHD and its treatment, increasing the likelihood that referrals will be appropriate and increasing the likelihood that children will benefit from coordination of interventions among school personnel, physicians, and parents. The protocol reflects a consensus of school personnel and community health care providers regarding the following: (1) ideal ADHD assessment and management principles; (2) a common entry point (a team) at schools for children needing assessment because of inattention and classroom behavior problems, whether the problems present first to a medical provider, the behavioral health system, or the school; (3) a protocol followed by the school system, recognizing the schools' resource limitations but meeting the needs of community health care providers for classroom observations, psycho-educational testing, parent and teacher behavior rating scales, and functional assessment; (4) a packet of information about each child who is determined to need medical assessment; (5) a contact person or team at each physician's office to receive the packet from the school and direct it to the appropriate clinician; (6) an assessment process that investigates comorbidities and applies appropriate diagnostic criteria; (7) evidence-based interventions; (8) processes for follow-up monitoring of children after establishment of a treatment plan; (9) roles for central participants (school personnel, physicians, school nurses, and mental health professionals) in assessment, management, and follow-up monitoring of children with attention problems; (10) forms for collecting and exchanging information at every step; (11) processes and key contacts for flow of communication at every step; and (12) a plan for educating school and health care professionals about the new processes. A replication of the community process, initiated in Forsyth County, North Carolina, in 2001, offers insights into the role of the AAP ADHD guidelines in facilitating development of a community consensus protocol. This replication also draws attention to identification and referral barriers at the school level. The following recommendations, drawn from the 2 community processes, describe a role for physicians in the collaborative community care of children with symptoms of ADHD. (1) Achieve consensus with the school system regarding the role of school personnel in collecting data for children with learning and behavior problems; components to consider include (a) vision and hearing screening, (b) school/academic histories, (c) classroom observation by a counselor, (d) parent and teacher behavior rating scales (eg, Vanderbilt, Conner, or Achenbach scales), (e) consideration of speech/language evaluation, (f) screening intelligence testing, (g) screening achievement testing, (h) full intelligence and achievement testing if discrepancies are apparent in abbreviated

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tests, and (i) trials of classroom interventions. (2) Use pediatric office visits to identify children with academic or behavior problems and symptoms of inattention (history or questionnaire). (3) Refer identified children to the contact person at each child's school, requesting information in accordance with community consensus. (4) Designate a contact person to receive school materials for the practice. (5) Review the packet from the school and incorporate school data into the clinical assessment. (6) Reinforce with the parents and the school the need for multimodal intervention, including academic and study strategies for the classroom and home, in-depth psychological testing of children whose discrepancies between cognitive level and achievement suggest learning or language disabilities and the need for an individualized educational plan (special education), consideration of the "other health impaired" designation as an alternate route to an individualized educational plan or 504 plan (classroom accommodations), behavior-modification techniques for targeted behavior problems, and medication trials, as indicated. (7) Refer the patient to a mental health professional if the assessment suggests coexisting conditions. (8) Use communication forms to share diagnostic and medication information, recommended interventions, and follow-up plans with the school and the family. (9) Receive requested teacher and parent follow-up reports and make adjustments in therapy as indicated by the child's functioning in targeted areas. (10) Maintain communication with the school and the parents, especially at times of transition (eg, beginning and end of the school year, change of schools, times of family stress, times of change in management, adolescence, and entry into college or the workforce). *Pediatrics* 2005; 115:e97–e104. URL: www.pediatrics.org/cgi/doi/10.1542/peds.2004-0953; *attention-deficit/hyperactivity disorder, community consensus*.

ABBREVIATIONS. AAP, American Academy of Pediatrics; ADHD, attention-deficit/hyperactivity disorder; PMHP, public mental health program; CH, Child Health; SAT, Student Assistance Team.

Publication of the American Academy of Pediatrics (AAP) guidelines for assessment¹ and management² of attention-deficit/hyperactivity disorder (ADHD) was a welcome contribution to pediatricians' efforts to improve the care and outcomes of 6- to 12-year-old children with attention and behavior problems. As a chronic disorder that affects 4% to 12% of 6- to 12-year-old children¹ and results in very challenging personal, clinical, educational, and societal problems, ADHD is an appropriate focus for the efforts of the AAP and practicing pediatricians.

There remain large discrepancies between pediatricians' practice patterns and the AAP guidelines. As many as 50% of children with ADHD are unidentified and untreated.³ A study by Zito et al⁴ of methylphenidate use patterns among Medicaid-insured youths raised the additional concern of racial disparities in the treatment of ADHD. That study found that black youths were 2.5 times less likely to receive methylphenidate than were white youths. Bussing⁵ reported that there are significantly greater barriers

to ADHD treatment for girls, blacks, and poorer individuals; these barriers occur at multiple levels, including obtaining evaluations by parents, obtaining the diagnosis by the provider, and obtaining treatment. These studies confirm the importance of establishing appropriate mechanisms to ensure that children of both genders and all socioeconomic, racial, and ethnic groups receive appropriate assessment and treatment.

The AAP ADHD toolkit (available to members at www.aap.org/MOC and to others by telephone order at 800-433-9016, extension 5898) provides resources to assist with implementation of the ADHD guidelines in clinical practice. These resources address a number of the barriers to office implementation, including unfamiliarity with *Diagnostic and Statistical Manual of Mental Disorders* criteria; difficulty identifying comorbidities; and inadequate knowledge of effective coding practices. Also crucial to the success of improved processes within clinical practice is the establishment of community collaboration in care, particularly collaboration with the educational system. Such collaboration is essential for addressing other barriers to good care, such as pressures from parents and schools to prescribe stimulants, cultural biases that may prevent schools from assessing children for ADHD or prevent families from seeking health care, and inconsistencies in recognition and referral among schools in the same system. Collaboration may also create efficiencies in collection of data and school-physician communications, thereby decreasing physicians' non-face-to-face (and thus nonreimbursable) elements of care.

This article describes a community process that has the potential to increase practice efficiency and improve practice standards for children with ADHD. This approach also has the potential to enhance identification of children in schools. Perhaps most importantly, this community process has an educational component that increases knowledge of school personnel regarding ADHD and its treatment, increasing the likelihood that referrals will be appropriate and will not presume diagnosis and treatment and increasing the likelihood that children will benefit from coordination of interventions among school personnel, physicians, and parents.

The process depends, at its core, on the mutual interest of school personnel and community health care providers in improving the care of children with ADHD. Like physicians, school personnel find ADHD both challenging and time-consuming. Teachers and school counselors spend enormous amounts of time addressing concerns regarding children who may have ADHD; however, educators may have little accurate knowledge about ADHD and may, in some cases, share misperceptions common among parents, ie, that ADHD is not a real disorder, that ADHD is real but is a minor problem, or that ADHD is caused by too much sugar, food additives, poor parenting, or a stressful family environment. They may think that ADHD is overdiagnosed and overtreated, they may not know which treatments are effective or ineffective, or they may jump to conclusions that children have ADHD and

prompt parents to demand medication. School psychologists are typically more knowledgeable about ADHD but are often overwhelmed by their caseloads and may experience systematic disincentives to identify children with special needs. They may be adversarial toward physicians who demand testing and services for their patients or who do not provide timely medical evaluations and clear communication of results. Nevertheless, it is our experience that a school system's lead psychologist and/or director of student services will be very interested in an opportunity to collaborate with the community's health care providers regarding ADHD assessment and management, interested enough to commit both time and resources to the process.

The process described in this article has been used in 2 communities, 1 involving 3 school systems and the other involving 1 school system. The process may be more difficult to apply in communities where many different school systems feed physicians' practices. In those locations, a regional or state collaboration could follow a similar path.

The outcome of the community collaborative process described in this article is a consensus of school personnel and community health care providers regarding the following: (1) ideal ADHD assessment and management principles (facilitated by the AAP guidelines for children 6-12 years of age); (2) an inventory of relevant services currently available in the community; (3) a common entry point (a team) at schools for children needing assessment because of inattention and classroom behavior problems, whether the problems present first to a medical provider, the behavioral health system, or the school; (4) a protocol followed by the school system, recognizing the schools' resource limitations but meeting the needs of community health care providers for classroom observations, psychologic testing, parent and teacher behavior rating scales, and functional assessments; (5) a packet of information about each child who is determined to need medical assessment; (6) a contact person or team at each physician's office to receive the packet from the school and direct it to the appropriate clinician; (7) an assessment process that investigates comorbidities and applies appropriate diagnostic criteria; (8) evidence-based interventions; (9) processes for follow-up monitoring of children after establishment of a treatment plan; (10) roles for central participants (school personnel, physicians, school nurses, and mental health professionals) in assessment, management, and follow-up monitoring of children with attention problems; (11) forms for collecting and exchanging information at every step; (12) processes and key contacts for flow of communication at every step; and (13) a plan for educating school and health care professionals about the new processes.

CASE STUDY 1: GUILFORD COUNTY, NORTH CAROLINA

Guilford County, North Carolina, had 3 school systems in 1992, when this community process began. The school population was ~60 000. Local pe-

diatricians were frustrated with the lack of data on which to base diagnoses for children with classroom behavior problems and to determine treatment. Pediatricians commonly received requests for stimulant medication from parents who had been advised by teachers to make such requests. The requests sometimes came with some documentation from the school or with nothing except the teacher's verbal report to the parent. This put the pediatrician in the position of trying to make a very complex decision during the very limited time of a routine office visit, in which the child or adolescent might demonstrate none of the classic characteristics of ADHD. When medication was prescribed, the physician was most often "out of the loop" for feedback about classroom effectiveness and needed to decide on medication adjustments without data from the school.

Developmental/behavioral pediatricians in private community practice received numerous referrals from pediatricians and parents. Because the children referred to them were privately insured and were able to pay for components of care not reimbursed by third parties, these developmental/behavioral pediatricians were able to provide thorough evaluations; however, they also experienced barriers to communication with teachers and school officials. Other specialists who treated patients for ADHD, ie, private psychiatrists, psychologists, and neurologists, also did not have consistent processes for communication with schools. The area's public mental health program (PMHP) was inundated with referrals for therapy and medication management, primarily for children who had Medicaid insurance and whose families did not have access to private specialists. Because the PMHP also monitored many children with other psychiatric diagnoses and with severe persistent illnesses, the PMHP found ADHD referrals unmanageable. In addition, the stigma of receiving services at the PMHP center and the difficulty of keeping all of the required visits for therapy resulted in poor follow-through by families.

Most of the Guilford County children with Medicaid insurance received their primary care from pediatricians in comprehensive pediatric clinics of the Guilford County Department of Public Health, know collectively as Child Health (CH). The CH pediatricians were the catalysts for the development of the community collaboration process for ADHD. The schools were also frustrated with the haphazard referral process and the variation in treatment patterns. Teachers, psychologists, and administrators all desired better communication. School nurses were often in the untenable position of responding to questions from school personnel about ADHD medications with no information from the physician. Parents were often poorly informed and uncomfortable with medication decisions. Communication problems frequently resulted in an adversarial relationship between the parents and the school, the physician, or both. It was in this setting that conversation among the participants became imperative.

INGREDIENTS OF THE PROCESS

Motivation for Change

The process through which Guilford County achieved consensus regarding assessment and treatment of children with attention problems required 9 months and 6 meetings of a multiagency community group. The CH pediatricians led the community planning effort. These physicians were inundated by requests for methylphenidate prescriptions from parents and teachers, typically without supporting information from the school and without a commitment for parallel behavioral interventions or evaluations for comorbidities.

The CH physicians developed a consensus report on the care of children with ADHD. The report highlighted the prevalence of ADHD and its comorbidities, their combined societal impact, the importance of school information in diagnosis and follow-up monitoring, the necessity of identifying comorbid mental health conditions, the challenges posed by the chronicity of ADHD and by disconnected sites of service in the community, and the importance of educational and behavioral interventions in association with medication. The report ended with the following statement: "Child Health physicians planned to implement new practices in the care of children with ADHD. These practices would require more information from schools before prescribing stimulant therapy and, in most instances, a mental health assessment to assess for comorbidities. The school and mental health assessments were considered necessary to rule out comorbidities such as learning or language disabilities, depression, anxiety, or oppositional disorder" (J.M.F., unpublished data, 1991). The report acknowledged that these new requirements would have an impact on community school and mental health systems.

Identification of Stakeholders

After making telephone contact with all stakeholders and establishing a meeting time, the CH pediatricians sent their report to all community agencies involved in the education and health care of children and to local parent support and advocacy groups, along with invitations to participate in a planning process for the improved care of children with attention and behavior problems. Invitees included representatives of the 3 local school systems, local health department administration and the school health nursing leadership, and the local PMHP, developmental and behavioral pediatricians, psychologists, and family advocacy representatives.

The impending CH changes created a strong motivation for invitees to participate. Most also reported particular difficulties in providing services and coordinating care for low-income children with ADHD and were responsive to the planning effort.

Clear Objectives for the Process

Objectives for the process were clearly stated in the invitation to participate, ie, (1) to communicate the changing emphasis of CH in the care of children with ADHD, (2) to anticipate the effects of that new em-

phasis and related procedures on schools and on clients' utilization of local mental health agencies, (3) to clarify the roles of schools and local agencies in the care of children with ADHD, and (4) to identify coordinating mechanisms in the care of children with ADHD.

Resources to Facilitate the Process

The medical director of CH (this report's lead author) had the resources to lead the process, including protected administrative time, secretarial support, access to professionals with content expertise in ADHD, and training in group processes. The structure provided for the process included meeting locations, detailed minutes, compilation and distribution of materials, an agenda and facilitator for each meeting, and consultation with an expert, Steven Band, PhD, a clinical psychologist with a special interest in ADHD.

Contents of Meetings

Introductory Meeting

The following questions were addressed: Who are current providers of services to children with inattention and classroom behavior problems? What are their biases, experiences, limitations, strengths, and capacities? What are they currently doing to serve these children? What tools are they using? What can they contribute to a community model of care? What processes do they recommend for pursuing the group's objectives and planning a community model of care?

This session began with the self-introduction of participants, many of whom had not met previously. Each participant had the opportunity to express frustration, describe resource concerns, provide that organization's perspective on gaps and issues, and summarize organizational mandates, emphases, and trends. Careful notes documented these introductory remarks and enabled participants to move from "turf" concerns to broader issues. The exchange enabled school representatives to air their concerns about the adversarial quality of some demands parents and physicians made of the school, often including a complete battery of psychologic tests for students with relatively minor problems; physicians aired their concerns about demands for medication, conveyed by parents and/or school staff members. Participants agreed on topics and a schedule for subsequent meetings, with each organization identifying its potential service contribution and role in coordination.

Building Consensus Regarding Assessment

The following questions were addressed: What are the components of an ideal assessment? What is a realistic standard for the community? What specific methods and tools can we use to meet that standard? Which of these methods and tools are available to physicians and which must be provided by others? How can we ensure that necessary information is available to those who need it? How can we identify and refer children who require additional mental

health evaluation, and how can we ensure that their other problems are addressed?

This was the most challenging and complex undertaking of the process. Participants discussed ADHD symptoms, comorbidities, diagnostic methods, and tools. They generated a list of decisions critical to a community protocol. Key items included a common definition of the minimal components of assessment and common forms to prompt complete data collection and to facilitate the exchange of information. The group decided to form subcommittees to draft a coordinated interagency assessment model and to develop tools to facilitate transmission of information.

The subcommittees met before the third meeting of the entire group. Work products included a packet for the use of physicians, including 2-way release forms for all agencies; descriptive materials for parents about each agency; educational materials about ADHD for parents; a report form for medical providers to communicate their diagnoses and medication decisions to schools and other agencies; a coordinating mechanism to balance the load of referrals among community providers; and a preassessment protocol to be followed by schools before referral of a child for medical and/or mental health assessment. The latter included vision and hearing screening, health history, school history, classroom observation by a counselor, completion of behavior rating scales by the parents and teacher, consideration of speech/language evaluation, classroom interventions (trial of at least 6 weeks), evaluation of interventions, and consultation with a school psychologist.

Key compromises were made. Physicians, who had initially expected the schools to provide complete individual intelligence and academic test results for each child, acknowledged the schools' resource limitations and agreed to accept screening intelligence and achievement tests (ie, the Kaufman Brief Intelligence Test and the Kaufman Test of Educational Achievement) as a part of the preassessment protocol, provided that students with discrepancies would be tested more fully. School personnel agreed not to prompt parents to demand medication for their children. All participants agreed that children who presented to them directly with their concerns would not be offered a bypass around this process; they would be directed to take their concerns to a common entry point, namely, the school-based committee responsible for collecting the preassessment data.

The subcommittee offered a draft summary form to record all preassessment data and a draft diagram of a community assessment pathway. In addition to the features described above, the model designated a team, composed of a school psychologist and representatives of the PMHP and CH, that would meet regularly to review preassessment materials collected by the schools, to determine individual children's assessment plans (ie, whether medical and/or mental health evaluations were indicated and which agencies should be involved and in what sequence), and to prioritize children awaiting evaluation. At the third full group meeting, participants responded to

the assessment subcommittee reports with suggestions for additional refinements.

Building Consensus Regarding Interventions

The following questions were addressed: What are effective and ineffective interventions for ADHD? Which organizations have services to offer? How can the community share responsibility for serving diagnosed children and how can their various services be coordinated?

After responses to the work of the assessment subcommittees, discussion at the fourth full group meeting moved on to intervention strategies. After review of the literature on effective and ineffective interventions for ADHD, the group generated a list of community gaps and needs. An intervention subcommittee was charged with developing a community intervention model based on existing resources and best practices.

The intervention subcommittee proposed that a multidisciplinary intervention team at CH receive the assessment recommendations from medical and mental health providers. The team would develop an intervention and follow-up plan and assign a school-based intervention coordinator to implement plans, to track progress, and to ensure ongoing communication with parents and reassessment if indicated.

The subcommittee proposed the intervention model to the full group at the fifth meeting. Because of the differing resources and geographic features of the 3 school systems, there were some differences in details adopted by the 3 systems, although there was an overall consensus regarding roles and concepts. The meeting closed with a clarification of the "other health impaired" designation process and the respective roles of participants in pursuing such a designation for a child.

Wrapping Up

The following questions were addressed: Do we have agreement? How will we disseminate the plan and enact it?

The agenda of the final full group meeting included a progress report from each school system, distribution of finalized model diagrams and forms, and plans for educating various school and health care professional groups and parents about the new model. The group adjourned.

Outcome

School system representatives facilitated implementation at the school level, through a series of inservice training sessions for school counselors and other key personnel. As a result of the community collaborative process, CH pediatricians began to receive a packet of information for each child who had been referred with a possibility of ADHD. At CH, a multidisciplinary procedure, which involved review of school preassessment packets for 2 or 3 children in an afternoon, was implemented. The group reviewed information, requested additional assessments if deemed necessary, and made plans for the child's medical assessment and for a mental health assessment, if necessary. The school nurse coordinated ap-

pointments, ensured communication between health care providers and the school, facilitated a medication trial (if medication was prescribed), and obtained follow-up forms needed to monitor the child's progress in school and at home.

The viability of the community process has depended on periodic review, updates, and improvements. For example, with time the multidisciplinary meetings became logistically unwieldy. It also became clear that the PMHP did not have the staff or resources to focus on children with the diagnosis of ADHD. Four years after the initial community meetings, a child psychiatrist from the PMHP developed a task force to revisit the original consensus. The task force again convened all stakeholders and reached a new consensus regarding the school as the point of entry for referral, an inter-agency review team to assign referral sites, and common forms and procedures for information-sharing. This process has continued since then, eventually involving patients of private pediatricians as well as CH. A flowchart representing the current Guilford County process and generic versions of the forms used to convey information from schools to physicians and from physicians to schools are available at the Web site of the North Carolina Chapter of the AAP (www.ncped.org).

Every year, school system leaders reinforce the process at a pediatric grand rounds with community physicians. The intention is to involve new physicians and to update and maintain the process.

CASE STUDY 2: REPLICATION OF THE COMMUNITY PROCESS IN FORSYTH COUNTY, NORTH CAROLINA, 2001 TO PRESENT

In 2001, a similar process was initiated in Forsyth County, North Carolina, in an effort to build community consensus regarding the assessment and treatment of elementary school-aged children with ADHD symptoms. The Forsyth County process benefited from the publication of the AAP guidelines for assessment and management of ADHD; however, the Forsyth County process brought to light an unexpected impediment to the identification and referral of children with symptoms of ADHD. For these reasons, this process is briefly described, as it contrasts with the Guilford County process.

Forsyth County has a single school system serving ~45 000 students. Although the initiative in Forsyth County occurred 10 years later than that in Guilford County, community pediatricians and school personnel experienced similar frustrations with the identification and care of children with attention and behavior problems. Unlike in Guilford County, low-income children receive their care in both private and public settings, approximately one half in county-funded, university-administered clinics and one half in private practices.

The Forsyth County consensus-building process was simpler than that for Guilford County, involving the lead psychologist and lead social worker from the school system and a university-based pediatrician (the same individual who initiated the Guilford County process) and targeting elementary school-

aged children. A private pediatrician and representatives of the area's PMHP participated on an ad hoc basis, to address issues specific to their respective groups.

The AAP guidelines greatly facilitated the consensus-building phase of the effort. Furthermore, because the school system representatives were acquainted with and motivated by the success in Guilford County, the Forsyth County process moved rapidly to the decision that elementary school personnel would provide community physicians with the information they needed to meet the AAP standards. School administrative personnel committed to collect the following information: (1) 2-way, information-release forms signed by parents, (2) demographic information, (3) school diagnostic information (including aptitude and achievement screening results), (4) child and family histories (later eliminated; see discussion below), (5) Vanderbilt Parent and Teacher Behavior Rating Scales, (6) teacher comment sheets, and (7) classroom modifications/interventions (later eliminated as a component of the initial physician packet; see discussion below).

The Forsyth County decision to use the Vanderbilt scale as the screening instrument offered several advantages for physicians, ie, an ADHD-specific, *Diagnostic and Statistical Manual of Mental Disorders*-based format, screening for comorbidities, assessment of functional impairment, and follow-up monitoring for medication side effects. It also offered advantages for school psychologists, because it is free and easy to use and because other instruments (eg, the Behavior Assessment System for Children or the Achenbach scale) can be reserved for second-tier testing. School personnel committed to screen each child's cognitive ability and academic performance and to pursue complete psychologic testing if discrepancies appeared significant. The process called for school personnel to compile the specified information on forms developed during the consensus process and to forward the forms in a packet to the child's physician. Physicians were charged with communicating back to the child's school their assessment and treatment decisions and follow-up needs. School system representatives assigned primary responsibility for implementation of the process at the school level to the chair of each elementary school's Student Assistance Team (SAT) (typically, the school guidance counselor).

In the early months, physicians did not consistently receive the promised packets. SAT chairs complained that the process was too cumbersome. In retrospect, process leaders concluded that inclusion of SAT representatives in the planning process might have anticipated or averted the implementation problems. The planning group reconvened in September 2003, this time with SAT representatives. The group agreed to eliminate from the initial physician packet the child and family histories (relying on physicians to collect this information in their offices) and to eliminate the report of classroom modifications (implementing and reporting on them at a later point in the process).

The participation of SAT chairs contributed signif-

icantly to the group's understanding of factors affecting educational evaluation and medical referral of children with symptoms of ADHD. It came to light that there is considerable variation in the function of SATs at individual elementary schools. (This variation is a result of the school system's commitment to decentralized, site-based management.) Whereas some SATs assume broad responsibility for assessing children with behavior and academic problems, others have the narrowly defined role of evaluating only students who appear to qualify for exceptional children's services. In schools served by the narrowly focused SATs, students who experience behavior problems in the classroom are typically referred to the assistant principal for disciplinary action, rather than behavioral or educational assessment. Students perceived by teachers as inattentive or hyperactive (and academically average or above) are not typically referred to the SAT; instead, teachers advise the parents to seek medical evaluation for what school personnel consider to be the child's purely medical problem, to be managed with medication. Parents resistant to stimulant medication and those with limited access to primary health care for their children, including many minority parents, typically do not follow through with the recommended medical evaluation.

Therefore, it has become evident that in Forsyth County many students who experience behavior problems or inattentiveness never come to the attention of their physicians or the SAT. Ongoing efforts will be necessary to persuade principals and SAT members that students with discipline problems may benefit from collaborative educational and medical assessments and that students with ADHD are best served with multimodal approaches, not simply medication.

A flowchart describing the Forsyth County process is available at the Web site of the North Carolina Chapter of the AAP (www.ncpeds.org). Implementation of this process is progressing slowly. A system is in place to monitor the timeliness and quality of schools' responses to physician requests. The absence of school nurses in the Forsyth County process reflects the very low ratio of school nurses to students (1 nurse per >4000 students). In contrast to the Guilford County process, which relies heavily on school nurses to coordinate assessments and to transmit information, the Forsyth County process will rely on established contact persons at each elementary school and in each practice, transmission of packets by mail to pediatric offices in advance of scheduled visits, and troubleshooting by an administrative assistant in the schools' psychology office. A registry of physicians interested in the process will provide a framework for ongoing dialogue about the process, for problem-solving, and for communication regarding changes.

CONCLUSIONS

The following principles contributed to the success of both processes. (1) The structure provided for the process included meeting locations, detailed notes, compilation and distribution of materials, and an

agenda and facilitator for each meeting. Consultation with an expert was an important mechanism for reaching consensus in the Guilford County process; reference to the AAP guidelines substituted for this in the Forsyth County iteration. (2) Development of specific forms and diagrams focused participants on necessary decisions and operationalized agreements. (3) Much of the labor took place outside meetings; the larger group reacted to the recommendations of individuals or subcommittees. (4) Tasks were assigned to persons most motivated to achieve the result. (5) Work products were distributed regularly to the group, to retain members' interest and to incorporate their feedback. (6) Education of all participants was a critical step in implementation. All partners were responsible for organizing educational programs regarding ADHD and the new process for their respective agencies; other partners collaborated in presenting the programs. (7) An unexpected barrier to implementation of the process required gathering of more information and additional group problem-solving efforts. Such barriers might be avoided by including key stakeholders in the planning process from the outset. These stakeholders might include school-based personnel, as well as school administrators. (8) The process must include periodic revisiting of agreements and a willingness to make needed changes. Even good processes require continual review, updating, and improvement.

The following recommendations, drawn from both community processes, describe a role for physicians in the collaborative community care of children with symptoms of ADHD. (1) Achieve consensus with the school system regarding the role of school personnel in collecting data for children with learning and behavior problems; components to consider include (a) vision and hearing screening, (b) school/academic histories, (c) classroom observation by a counselor, (d) parent and teacher behavior rating scales (eg, Vanderbilt, Conner, or Achenbach scales), (e) consideration of speech/language evaluation, (f) screening intelligence testing, (g) screening achievement testing, (h) full intelligence and achievement testing if discrepancies are apparent in abbreviated tests, and (i) trials of classroom interventions. (2) Use pediatric office visits to identify children with academic or behavior problems and symptoms of inattention (history or questionnaire). (3) Refer identified children to the contact person at each child's school, requesting information in accordance with community consensus. (4) Designate a contact person to receive school materials for the practice. (5) Review the packet from the school and incorporate school data into the clinical assessment. (6) Reinforce with the parents and the school the need for multimodal intervention, including academic and study strategies for the classroom and home, in-depth psychological testing of children whose discrepancies between cognitive level and achievement suggest learning or language disabilities and the need for an individualized educational plan (special education), consideration of the "other health impaired" designation as an alternate route to an individualized educational plan or 504 plan (classroom accommo-

dations), behavior-modification techniques for targeted behavior problems, and medication trials, as indicated. (7) Refer the patient to a mental health professional if the assessment suggests coexisting conditions. Obtain parental consent for exchange of information with mental health professionals. Request that the school packet be sent to the mental health professionals/agency. Clarify the role of the mental health professionals/agency, compared with one's own role in follow-up monitoring. (8) Use communication forms to share diagnostic and medication information, recommended interventions, and follow-up plans with the school and the family. (9) Receive requested teacher and parent follow-up reports and make adjustments in therapy as indicated by the child's functioning in targeted areas (rather than symptoms). (10) Maintain communication with the school and the parents, especially at times of transition (eg, beginning and end of the school year,

change of schools, times of family stress, times of change in management, and adolescence). ADHD is a chronic condition that commonly persists past childhood.

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