Overview of Screening for Developmental and Social Emotional Delays

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INTRODUCTION

It is important to identify a developmental delay early, so that children may receive the help they need at the most opportune time. Undetected developmental and behavioral problems in children can have a profound long-lasting impact on the lives of the children and their families. The use of standardized developmental screening tools as a component of developmental surveillance can increase the identification of children who are at risk of developmental disorders or behavioral difficulties and enable them to receive earlier intervention. As a care coordinator, you have an important role in linking these children to the early childhood system of care once screening results indicate the need for further assessment or intervention.

WHY IS DEVELOPMENTAL SCREENING IMPORTANT?

The first few years of life have a major influence on a child's success later in life—from good health to success in school, as well as healthy self-esteem and social skills. The construction of the brain begins at conception and is at 80% of its adult size by the second birthday. Research in neuroscience now shows that the brain has the ability to respond, adapt, and continually change, i.e., that it is malleable and modifiable. This "plasticity" of the brain is greatest when we are young, therefore, early intervention is critical to achieve better physical and mental health outcomes.

According to the Centers for Disease Control and Prevention, 17% of children in the United States have a "developmental or behavioral disability;" however, less than half of these children are identified before they enter school. Developmental surveillance, without the use of formal developmental screening, may miss the subtler issues that are not easily detected by clinical observation. When practitioners rely on clinical impression rather than formal screening, the identification of developmental delays is much less accurate. In one study, more than two-thirds (67.5%) of young children identified as delayed using a formal screening tool had not been identified by their pediatrician.[1] Validated screening tools, by contrast, provide standardized data to more accurately identify children in need of referral.[2]

Early adversities such as poverty, domestic violence, substance abuse or mental illness in the home can increase the likelihood of a child having a developmental delay. Poor children and near-poor children are more than

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twice as likely as higher income children to have had three or more ACEs. In 2014, 58% of Florida's children age birth to five lived in families at or near the federal poverty level. Because these families are eligible for Medicaid, Florida pediatricians serving in the Managed Medicaid Assistance program may see an even higher daily caseload of children exposed to significant numbers of ACEs.

Referral and Follow-up Is Key

Because of the brain's plasticity and ability to "catch up", the earlier the intervention occurs, the better the long-term outcomes. Many of the appropriate referral sources are state or federally funded. Your role in assisting the families to navigate these systems and access the services is vital to ensuring the child and/or family receives the necessary intervention and treatment.

DEVELOPMENTAL SURVEILLANCE VS. DEVELOPMENTAL SCREENING

Developmental surveillance is the on-going process of monitoring a child's growth and development over time, using multiple sources of information. Surveillance should occur at each well-child visit and include:

1. Asking about parental concerns
2. Obtaining a developmental history
3. Observing parent-child interaction
4. Identifying risk and protective factors[3]

Developmental screening is the systematic use of a validated screening tool to identify children likely to have a developmental delay with all children in the practice, regardless of risk.[4] According to the American Academy of Pediatrics (AAP), screening tools should address developmental domains including fine and gross motor skills, language and communication skills, problem-solving/adaptive behavior, and personal-social skills.

Screening identifies when a child's development differs from same age norms. It does not provide conclusive evidence of a developmental delay or result in a diagnosis, but indicates the need for further assessment.

AAP RECOMMENDATIONS FOR SCREENING

Developmental Delays

The AAP recommends children receive developmental screening using standardized tools at the 9, 18, 24 and 30-month well-child visits or whenever a concern is identified during developmental surveillance. More frequent screening may be needed for children at high risk of developmental problems due to low birth weight, prematurity, or other risk factors. Repeated developmental screening is more accurate than a single assessment and documents a child's developmental progress over time.

Screening for autism spectrum disorders (ASD) is recommended at the 18 and 24-month well-child visit or when a developmental screening raises a concern. Signs of ASD may manifest earlier than 18 months. For example, a lack of joint attention is a distinguishing feature of ASD. Joint attention appears at 10-12 months in the normally developing infant and is observed when the child looks back and forth between the mother and a shared object of interest.[5]

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Social/Emotional Delays

The AAP also recommends screening for mental health problems at the same intervals as children are screened for other developmental issues. Between 9.5% and 14.2% of children ages birth to five experience social-emotional problems that negatively impact their functioning and development.[6] Children 0-5 should be screened for social-emotional difficulties using validated screening instruments if they have abnormal developmental screening results, **or** abnormal autism screening results, **or** when symptoms are observed in three areas:

1. Child's behavior or emotions (e.g., excessive crying; inability to calm; feeding or sleeping difficulties; more anxiety than others; mood that is mainly unhappy; severe tantrums).
2. Caregiver's behavior (e.g., caregiver is unable to consider the child's strengths; primarily uses a negative tone; does not anticipate the child's need for comfort; is excessively protective).
3. Relationship between the child and the caregiver (e.g., child does not effectively elicit comfort from the caregiver; child does not share joy or excitement with caregiver; child older than 9 months does not show stranger anxiety).[7]

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Trauma Exposure

The AAP further recommends a history of trauma exposure be obtained and the child and family's psychosocial history (e.g., parental distress or discord; domestic violence; parental substance abuse or mental illness; grief and loss issues) updated at every well-child visit or when the healthcare provider has concerns. The AAP Pediatric Intake Form (also known as the Family Psychosocial Screen) screens for depression, substance abuse, domestic violence, and other risk factors such as a parent's adverse childhood experiences. It can be administered when a family enters care and re-administered annually.

Maternal Depression

The AAP recommendations include screening for maternal depression during the child's first year or when the psychosocial history indicates the need for more frequent screening. It is estimated that 10-20% of women experience depression before, during, and after delivery of a baby, with even higher rates of depression among lower-income women. Use of a screening tool for depression is recommended because many women are reluctant to acknowledge their symptoms.

A compendium of mental health screening and assessment tools for primary care is included in the Addressing Mental Health Concerns in Primary Care: A Clinician's Toolkit.

COMMON SCREENING TOOLS USED BY PEDIATRICIANS

There are a variety of screening tools that a pediatrician can choose to use. Many of the tools can be completed by the parent in the waiting room prior to their appointment. These tools can be scored by office staff and then given to the physician to interpret and discuss the results with the parent. A comprehensive listing of screening tools for young children provides information for each instrument including a description, the age range for which the instrument was validated, the time to administer, the scoring procedure, psychometric properties, and requirements for administrators.[8]

Screening Tools for Children

The most commonly used screening tools in pediatric settings are:

1. Ages and Stages Questionnaire (ASQ)
2. Ages and Stages Questionnaire: Social-Emotional
3. Pediatric Evaluation of Developmental Status (PEDS)
4. Modified Checklist for Autism in Toddlers, Revised with Follow-up (M-CHAT-R/F)

The Ages and Stages Questionnaires are a series of parent completed questionnaires for screening children ages one month to 66 months of age. The most recent version is the ASQ-3. It is written at the 4th to 6th grade level and is available in English and Spanish as well as other languages. It takes 10-15 minutes to complete and 2-3 minutes to score. It utilizes the parents' knowledge of their child and highlights strengths as well as concerns. The questionnaires can be completed at home, in a waiting room, during a home visit, or as part of an in-person or phone interview. An ASQ online link can also be sent to the parent.

The ASQ-SE-2 is the most recent version and screens the general areas of self-regulation, compliance, communication, adaptive functioning, autonomy, affect, and interaction with people. It contains new behavior and communication items that may point to autism and early communication problems. It is completed by the parents and can be used for children from one month to 72 months (an expanded age range from the earlier version). Each questionnaire contains open ended questions related to eating, sleeping, and toileting. All intervals contain the question, "Is there anything that worries you about your baby (child)? If so, please explain." It also asks, "What things do you enjoy most about your baby?"

The Pediatric Evaluation of Developmental Status (PEDS) is a brief, ten question screening tool that elicits and addresses parental concerns about children's language, motor, self-help, early academic skills, behavior and social-emotional/ mental health. It can be used for children from birth to eight years of age. It can be completed by parents at home or in the waiting area prior to an appointment and is also available on-line.

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The Modified Checklist for Autism Revised with Follow-up (M-CHAT-R/F) is a 2-stage parent-report screening tool to assess risk for Autism Spectrum Disorder (ASD). It is a yes/no checklist for parents. The revised version reduces the false positive rate and detects more ASD cases than the original M-CHAT. It can be used for toddlers between 16 and 30-months of age. The parent completes the M-CHAT-R and then answers follow-up questions if the screening result on the M-CHAT-R is positive.

Screening Tools for Maternal Depression

A 2006 study of maternal depression screening during well-child visits found that screening was both feasible and effective using the 2-question Patient Health Questionnaire (PHQ-2).[9] Other commonly used depression screening tools are:

1. Edinburgh Postnatal Depression Scale (EPDS)
2. Beck Depression Inventory-II
3. Primary Care Evaluation of Mental Disorders (PRIME-MD)

DEVELOPMENTAL SCREENING RESULTS

Developmental screening tool scores are interpreted as "within normal limits" (negative) or "at risk" (positive). A positive result indicates the need for further assessment to determine if a child has a developmental disorder or delay and needs services. The Pediatric Developmental Screening Flowchart illustrates how developmental screening activities might occur within a pediatric setting.

What to Do if Screening Results Indicate the Need for Further Assessment

With a positive screening result, the primary care provider, if staff has the time and expertise, will conduct a more specific developmental assessment. If the office does not have that expertise, a referral to a community resource for further evaluation will be needed. Children needing evaluations from community providers may be assigned to care coordinators within the managed health plans to assist with the referral process. Your role as a care coordinator is important in assuring that the referral is made to the appropriate agency, an appointment is scheduled, and the family follows through with the appointment. Parents may need additional information about why the referral is necessary and the importance of having their child receive further assessment. Without this information and assistance they may not take the steps to make the appointment for their child.

Explain to the parents that a developmental screening identifies if a child is learning basic skills at the appropriate time or if there are delays in learning. Assure them that developmental screening is not an IQ test nor does it mean their child has a developmental disorder. Inform the parent that the physician has made a referral for additional testing to determine the severity of the problem and what, if any, additional supports and services the child may need. Explain the referral process and what the parent can expect when calling for an appointment. If you are co-located with the physician, it may be possible to do a facilitated referral or warm handoff by calling the program when the parent is with you in the office. If you are discussing the referral with the parent over the phone, Motivational Interviewing techniques can be used to elicit parental concerns and discuss any barriers to keeping appointments. See the companion guide *What Is Motivational Interviewing?* for more information. Let the parent know that you will make a follow-up call to find out how the appointment went and what information was learned.

Contact the referral source to make certain that evaluation results are sent to the primary care physician. Creating standard referral and feedback report forms that facilitate the communication process between agencies will make your job easier and ensure timely exchange of information.

Typical Referral Sources for Further Assessment of Delays

Children under three years of age can be referred for evaluation to the Children's Medical Services Early Steps Program. Early Steps is the designated provider of early intervention services for infants and toddlers in the state of Florida. Early intervention services are required by Part C of the Individuals with Disabilities Act (IDEA). The Early Steps provider will conduct a very detailed assessment at no cost to the family and provide services to children who meet eligibility criteria. Children three years of age and older can be referred to the local school

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district Florida Diagnostic Learning and Resources System (FDLRS) services center. A Child Find specialist will conduct a diagnostic screening to determine if a child may be in need of special education services. For school age children, regional coordinators with the Multiagency Network for Students with Emotional/ Behavioral Disorders (SEDNET) can assist parents in finding appropriate resources and services.

Children who do not qualify for early intervention services may benefit from referrals to high quality child care, home visiting services, or parent support groups. These services can provide parents with the information they need to support social-emotional development and positive mental health. Providing intervention services for young children before they exhibit significant problems in their behavior or development will improve their chances for more positive life outcomes.[10]

Young children identified with mental health disorders can be referred to therapists with special training in infant and early childhood mental health. Evidence-based practices such as Child-Parent Psychotherapy (CPP) or Parent-Child Interaction Therapy (PCIT) focus on repairing and strengthening the parent-child relationship to support the child's return to healthy cognitive, behavioral, and social functioning.

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Referrals At A Glance

Age	Concerns	Who to Refer to
0-3	Developmental Delays	Florida's Early Steps
3-18	Developmental Delays	Florida Diagnostic & Learning Resources System (FDLRS)
0-3	Mental Health/ Behavioral Health Concerns	Infant mental health providers in the provider network
3-18	Mental Health/ Behavioral Health Concerns	Mental health providers in the provider network Multiagency Network for Students with Emotional/ Behavioral Disabilities (SEDNET)

The *Practitioner Resource Guide* contains information on these and other community programs that may be helpful to children and families. Vulnerable populations often have additional unmet needs which result in multiple referrals. Family members who are stressed or depressed may have difficulty navigating the health, mental health, education, and social service systems. They are at risk of falling through the cracks without a care coordinator who is knowledgeable about community resources, can coordinate care, and provide support and follow-up to ensure needed services are received.[11]

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