

Westside Regional Center
Challenging Behaviors Across the Lifespan
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From Toe Walking to Tantrums: Early Recognition of Developmental & Mental Health Conditions in Children and Adolescents

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Disclosure

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CHILD DEVELOPMENT

The acquisition of motor, language, social and cognitive skills in childhood and adolescence that reflect *dynamic interaction* between *genetic* endowment and *environmental* experience

Biopsychosocial perspective

3 components of all developmental and behavior symptoms

Biology (genetic endowment)

Psychology (internal mental processes;
monitor and expression of emotions)

Social (contextual: family, peers, school
and community)

Engel GL: The need for a new medical model: a challenge for biomedicine. *Science* 1977;106:129-136.

Maternal Depression: A Pediatric Condition

- Incidence: 10-15%
“Baby Blues” 60-80%
- Depressed mothers preoccupied with self
- Less sensitive to needs of child
- Less visual, communicative, tactile stimulation
- Long-lasting effects on child due to lack of reciprocal interactions
- Mother-infant relationship: important outcome of pediatric health supervision

Edinburgh Postnatal Depression Scale:

British Journal of Psychiatry (1987) 150:782-86.

Maternal Depression

Questions to ask

- Do you look forward to enjoying your baby?
- Do you blame yourself unnecessarily when things go wrong
- Do you get anxious or worried when things go wrong?
- Are you so unhappy that you have difficulty sleeping
- Have you been able to laugh and see the funny side of things?

Screening questions for maternal depression in primary care pediatric offices

- Mood: “Over the past 2 weeks, have you felt down, depressed or hopeless?”
- Anhedonia: “Over the past 2 weeks, have you felt little interest or pleasure in doing things?”
- Sensitivity 74% and specificity 80% compared with Beck Depression Scale and Pediatric Symptom Questionnaire

Dubowitz H et al *Pediatrics* 2007;119:435-443.

Motor Development: Clues to Early Diagnosis of Cerebral Palsy

- Limitation of ankle dorsiflexion
- Sustained clonus
- Decreased shoulder strength
- Head lag (check in ventral suspension)
- Scissoring
- Asymmetric reach and grasp
- Delayed or incomplete pincer grasp

Cerebral Palsy or Developmental Motor Disorder

- **CP:** motor delay w/ hyperreflexia, spasticity (typically), tight heel cord, Babinski (LE>UE)
- **DMD:** Performance of activities that require motor coordination is below chronological age; delayed motor milestones; affects learning and/or activities of daily living; no neurological signs of upper motor neuron lesion
Associated with ADHD and ASD

Motor Development: Significance of Pincer Grasp

- Beyond a fine motor skill
- Visual-perceptual maturation
- Primates gift to humankind
- A marker for visual and motor cortical development by first birthday

Object Permanence: 9-11 months

A key cognitive building block

- The young infant acts as though objects cease to exist when he can't see them.
- At 9-11 mos., a child will pursue a disappearing object, uncovering a block or moving to get a car behind a chair.
- A 9-month old knows the drama around him is going on even though he can't observe it.
- Peek-a-boo: a new mental ability: to remember and to anticipate

Language Delay

- The most challenging developmental milestone to assess accurately in young children
- Knowledge of normal language milestones required to recognize early delays
- Language delay is seen in both neurodevelopmental and behavioral conditions

20-month old with an expressive language delay

- Only 5 words at 20-months
- Normal prenatal and perinatal events
- Normal hearing screen at birth
- Normal motor milestones
- Normal neurological exam

Language Milestones

Consider Referral If Not Met

- **Newborn:** turns to soft voice
- **3-months:** Cooing sounds (alert, interactive)
- **6-months:** Coos/jabbers; turns to new sounds and familiar voices
- **9-months:** Babbles “mama, baba”
Knows name, turns when called
- **12-months:** Points to objects; gives or shows objects; One word in addition to “mama/dada;”
Follows one-step command

Language Milestones

Consider Referral If Not Met

- **18-months:** Produces 5 or more words
Comprehends more than 50 words
- **2-years:** Produces >50 words
2 words together/follows 2-step command
Points at picture book
Uses words to request

ELMS: Early Language Milestone Scale (0-36 mo)

Modern Educational Corp, PO Box 721, Tulsa OK 74140

Language Milestones

Consider Referral If Not Met

- **3-years:** Talks in sentences most of time
Understood by strangers half the time.
Says name, age gender, birthday month
Names objects in daily life; 3 body parts.
Tells stories and knows one color.
- **4-years:** Sustains a conversation
Understood by stranger
Uses pronouns

Language Milestones

Parents as reliable historians

- Ask about current milestones
- Emerging rather than practiced skills
- Child's abilities rather than specific words
- Good prognostic indicators:
 - Imitation
 - Symbolic thinking/play
- Familial aggregation of language delay

20-month old with expressive language delay

- Only 5 words at 20-months
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- Normal motor milestones
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Language Delay

Differential Diagnosis

- Hearing loss
- Psychosocial deprivation
- Autistic Spectrum Disorder
- Global cognitive delay (MR)
- Apraxia
- Expressive vs. Receptive Delay
- Maturational language delay
Developmental Language Disorder

Autistic Spectrum Disorder

Definition

- Deficit in communicative **language** and **imagination**
- Deficits in **sociability**, **empathy**, and **insight** into other person's feelings and agendas
- Deficit in behavioral and cognitive **flexibility**

Autistic Spectrum Disorder

DSM-IV (1994)

- Autism
- Pervasive Developmental Delay (PDD-NOS)
- Asperger Syndrome
- Rett's Disorder
- Childhood Disintegrative Disorder

Impaired Social Relatedness

- Impaired eye contact and gestures
- Failure to develop appropriate peer relationships
- Lack of spontaneous sharing of enjoyment
- Lack of social-emotional reciprocity (empathy)

Impaired Communication

- Absent or delayed language without attempts to compensate
- Impaired ability to sustain conversation
- Stereotyped language or echolalia
- Lack of make-believe play
- Syntax and articulation spared more than semantics and pragmatics

Stereotypic behaviors

- Restrictive, narrow interests
- Non-functional routines
- Stereotyped motor mannerisms
- Preoccupation with parts of objects
- General insistence on sameness

Autistic Spectrum Disorder

Coexisting Conditions

(estimates)

- Seizures 10- 25%
 - Tic Disorders ~ 9%
 - ADHD 30-75%
 - Affective disorders 25-40%
- Depression/anxiety

Challenge to Pediatricians: Autism: Suspect and Refer by 18-24 months

- No babbling by 12 months
- No gesture (pointing, waving bye-bye) by 12 months
- No single words by 16 months
- No 2-word spontaneous (not echolalia) phrases by 24 months
- Any loss of language or social skills at any age

Practice parameter: Child Neurology Society and the American Academy of Neurology: Filipek et al. *Neurology*.55 (4): 468. (2000)

Challenge to Pediatricians: Autism: Suspect and Refer by 18-24 months

MCHAT:

Modified Checklist for Autism in Toddlers.

Robins D, et al *J Autism Develop Dis* (2001) 31: 131-144.

www.dbpeds.org (or Search MCHAT)

MCHAT

18-24 month Autism Screen
23-question parent form

6 Critical Questions:

1. Does your child take an interest in other children?
2. Does your child ever use his/her index finger to point, to indicate interest in something?
3. Does your child ever bring objects over to you to show you something?
4. Does your child imitate you?
5. Does your child respond to his/her name?
6. If you point to a toy across the room, does your child look at it?

A prospective study of the emergence of early behavioral signs of autism

- Prospectively examined behavioral signs of autism in 25 infants who met ASD criteria at age 36 months from a longitudinal study of infant siblings of children with ASD.
- Assessed 6, 12, 18, 24 and 36 months using video recordings
- Main finding: by 12 months, infants with a subsequent ASD diagnosis demonstrated:

Frequency of gaze to faces

Shared smiles

Directed vocalizations

Ozonoff S et al. *J Am Acad Child Adolesc Psychiatry* (2010) 49:256.

Time of diagnosis of autism

- CDC study: 13 sites; 8 yo kids born in 1994
- Median age of identification: 5.7 years
Compares with 3 years in many countries
- Factors associated with younger age of dx
 - Male
 - IQ 70 or lower
 - Developmental regression

Shattuck PT. J Acad Child Adolesc Psychiatry (2009) 48:474-482.

Social factors that impair treatment of children with ASDs

- Ability of parents to engage in treatment as partners
- Ability of parents to learn techniques that matter
- New studies show the role of parents as critical mediators of treatment response

ASD Look-alikes

- Anxiety: selective mutism
- Cultural differences in school setting
- ADHD w/ co-existing anxiety/depression
- Severe psychosocial deprivation

Asperger Syndrome: childhood and adolescence

- 2 ½ yo dx “autism” (1984: research study)
- Intensive behavior modification program 5 days/week for 3 years
- Mainstream education beginning K
- 12yo: Asperger Syndrome clinical profile with ADHD; + response to stimulant med.
- 17yo: severe anxiety associated with social inhibitions; + response to SSRI
- Completed college education (MPH and paroxetine)

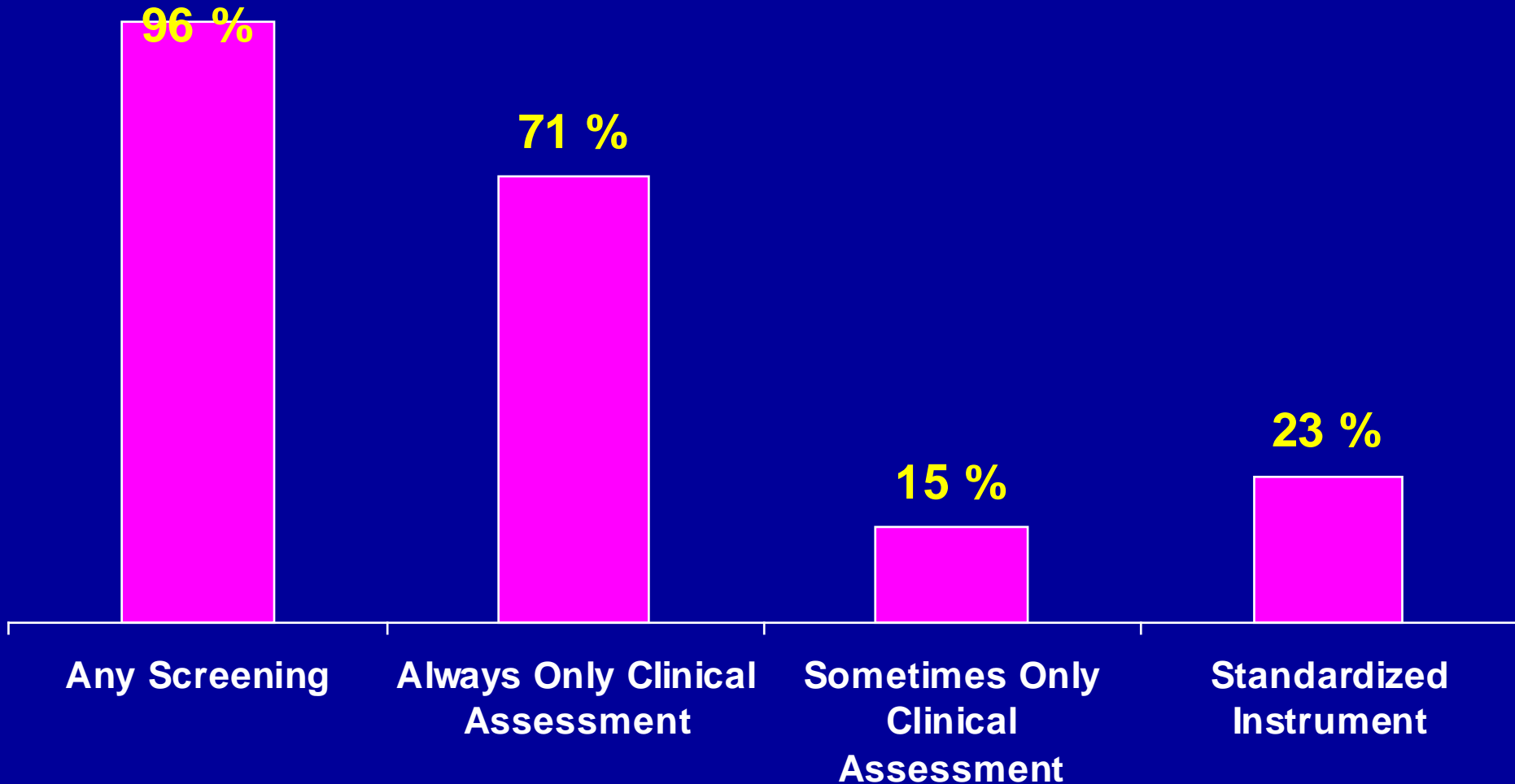
ADHD: Co-existing Conditions

- Oppositional Defiant Disorder 25%
- Anxiety Disorder 15-20%
- Conduct Disorder 10%
- Depressive Disorder 5-10%
- Learning disorders 12% +
- OCD , PTSD, Tourette's Syndrome
- Environmental stressors

Rethinking Well Child Care Visits: Innovations in WCC in Promotion of Development/Behavior

- Systematic screening: standardized tests
- Theme for each visit
- Risk categories
- Co-locating
- Healthy Steps model
- Family drawings
- Attention to parent's mental health
- Group discussions
- Group WCC
- Reach Out and Read
- Limit PE's to increase time for dev-behavior screening/counseling
- Computers/DVDs
- Links w/ community

Pediatricians Reporting Screening Young Children for Developmental Problems



AAP: Recent Policy for Developmental Surveillance and Screening (0-3 years)

- Developmental Surveillance: all well child preventive visits
- Developmental screening: standardized developmental screening test at:
9, 18 and 30 month WCC visits

AAP: Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening (2006) *Pediatrics* 118:405-420.

Developmental screening: standardized developmental screening test

9 mo. WCC visit: sits alone/lifts self to stand;
object permanence; stranger response

18 mo. WCC visit: autism screening;
language assessment

30 mo. WCC visit: why a new visit?

Developmental screening

- Pediatric Evaluation of Developmental Status (PEDS)
- Ages and Stages Questionnaire

PEDS

Pediatric Evaluation of Developmental Status

- Organized method to focus on **parent's agenda** for developmental assessment
- Language used to ask questions is critical:
“CONCERNS”
- “List any concerns about your child’s learning, development and behavior.”

Glascoe FP. Collaborating with Parents: Using PEDS to Detect and Address Developmental and Behavioral Problems. Nashville, TN: Ellsworth VandeMeer Press, 1998 (4405 Scenic Drive, Nashville, TN 37204)

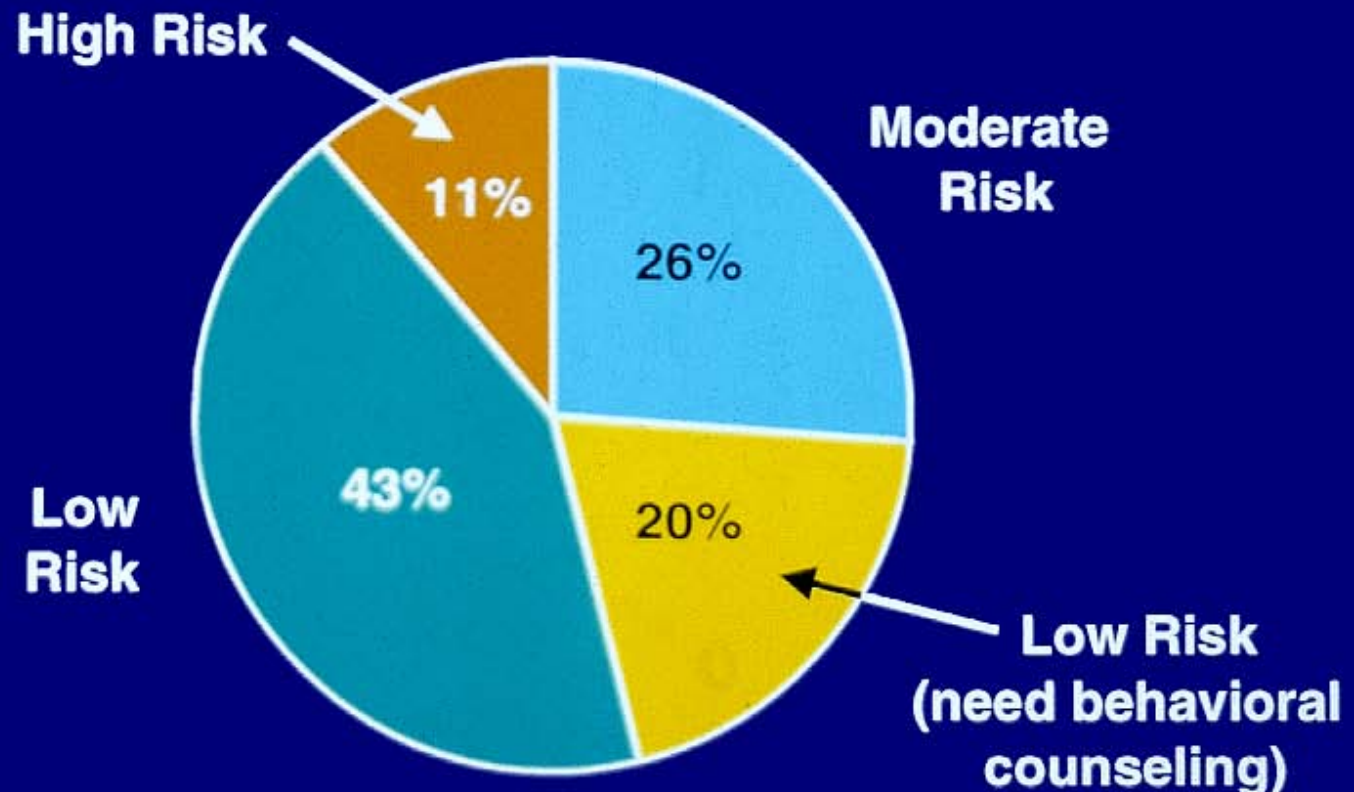
PEDS

Do you have any concerns about how your child

- talks and makes speech sounds?
- understands what you say?
- uses his or her hands and fingers to do things?
- uses his or her arms and legs?
- behaves?
- gets along with others?
- is learning to do things for himself/herself?
- is learning preschool or school skills?

Please list any other concerns.

PARENTS' EVALUATION OF DEVELOPMENTAL STATUS (PEDS) RISK FOR DEVELOPMENTAL DISABILITIES



Reference: Glascoe F.

Behavioral Screening

Pediatric Symptom Checklist (4-16 yr)

J Pediatr 112:201, 1988

<http://psc.partners.org/>

35 items (17 item short form)

Symptom Clusters:

Attention subscale

Externalizing subscale

Internalizing subscale

Children's Drawings: Expanding Your Developmental Assessment

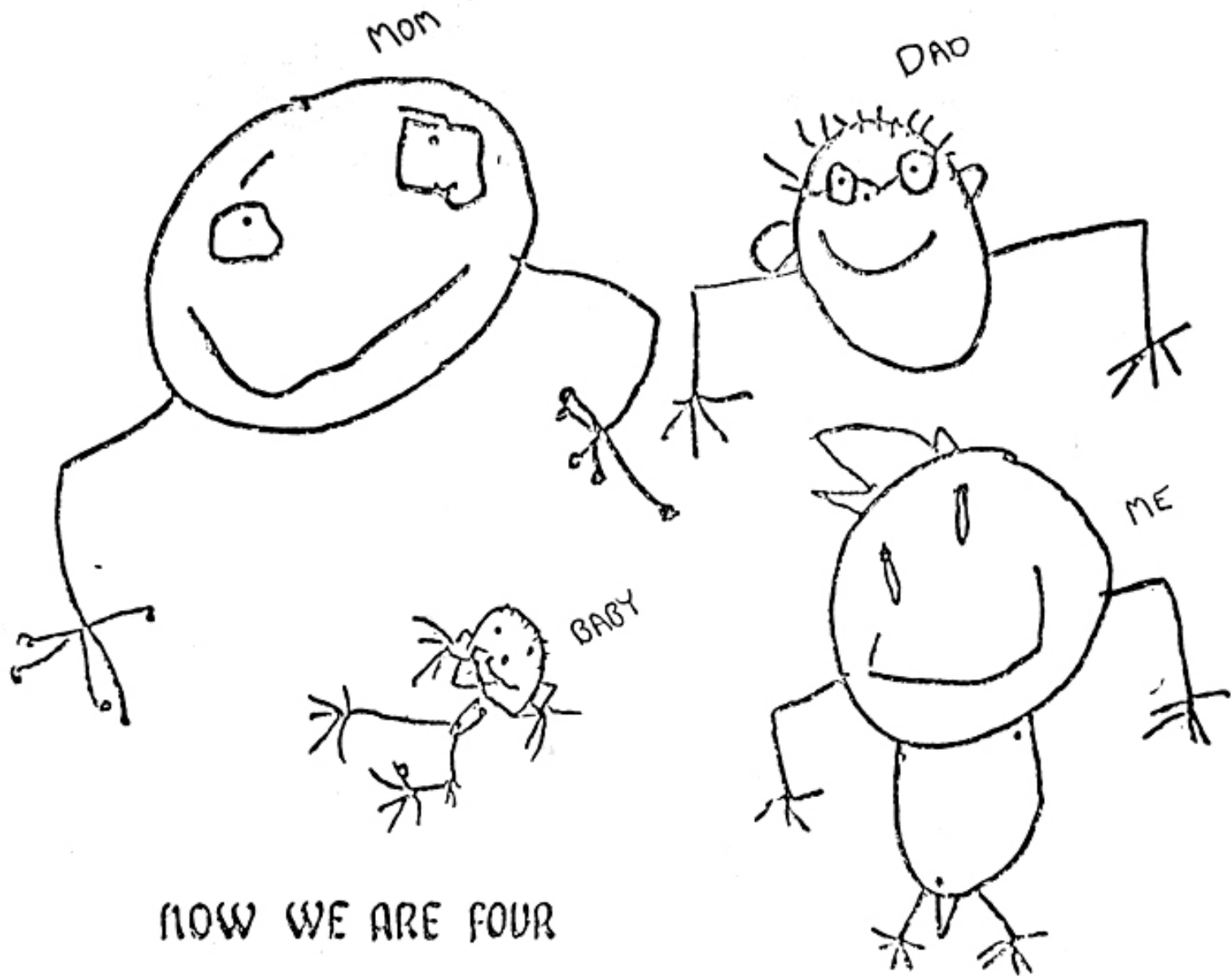
- Fine motor and visual-perceptual skills
- Insights into cognitive development
- Sets interactive tone for visit
- Opens dialogue about family issues/stresses
- Therapeutic for kids under stress
- Models interaction with kids
- Occupies kids while taking history
- Low tech and FUN!

Children's Drawings: Expanding Your Developmental Assessment

- Use black marker and white typing paper on a clipboard
- Receptionist or assistant gives material to child while waiting
- 3-year old: “Draw a person...the best person you can.”
- 4-5 year old: “Draw a picture of your family doing something.”
- Ask: “Tell me about your drawing.”
- Avoid over interpretation

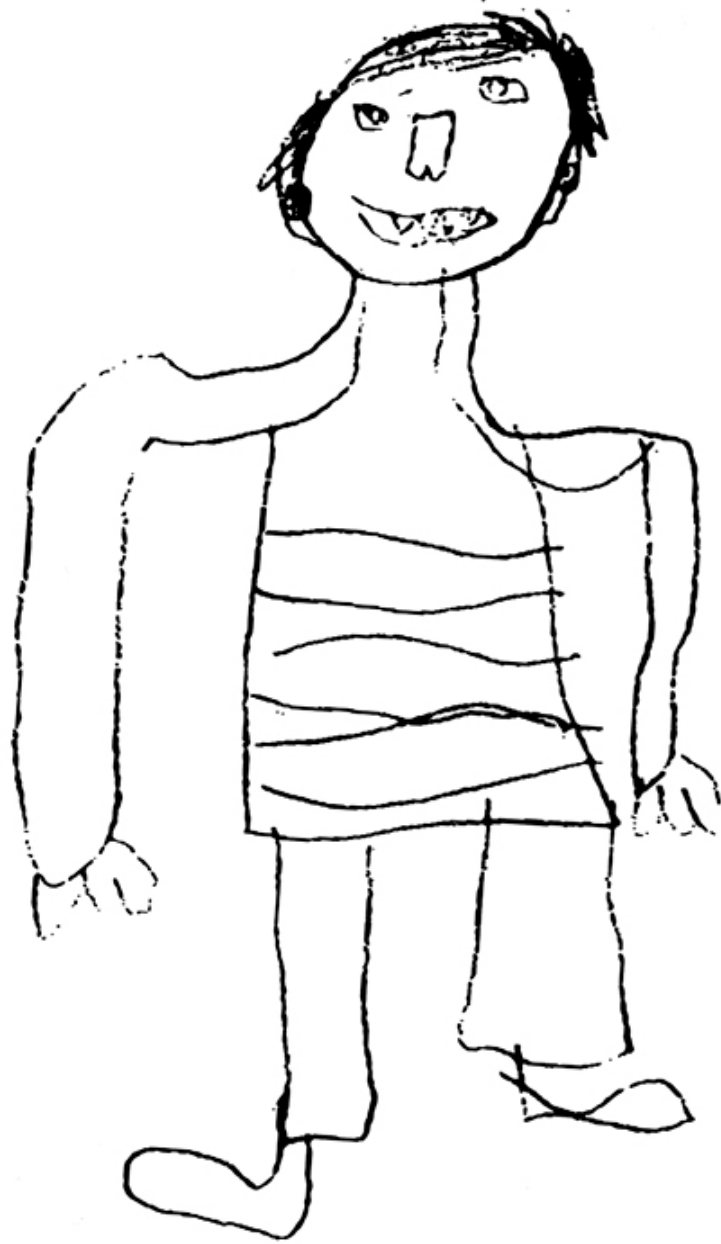
KINETIC FAMILY DRAWING CLINICIAN'S RESPONSE

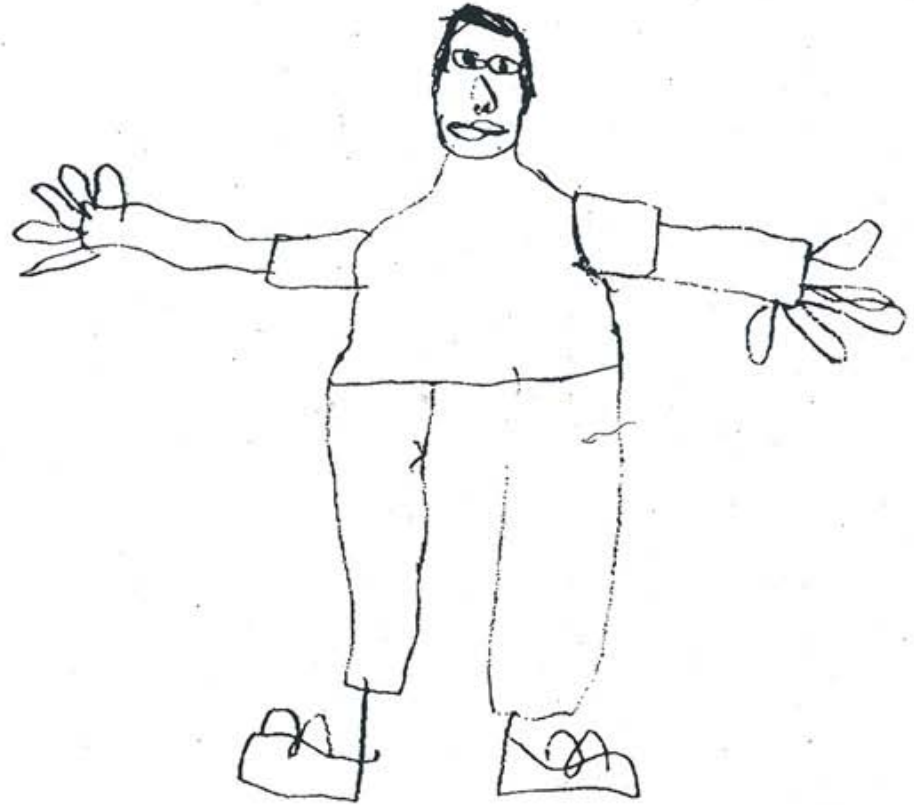
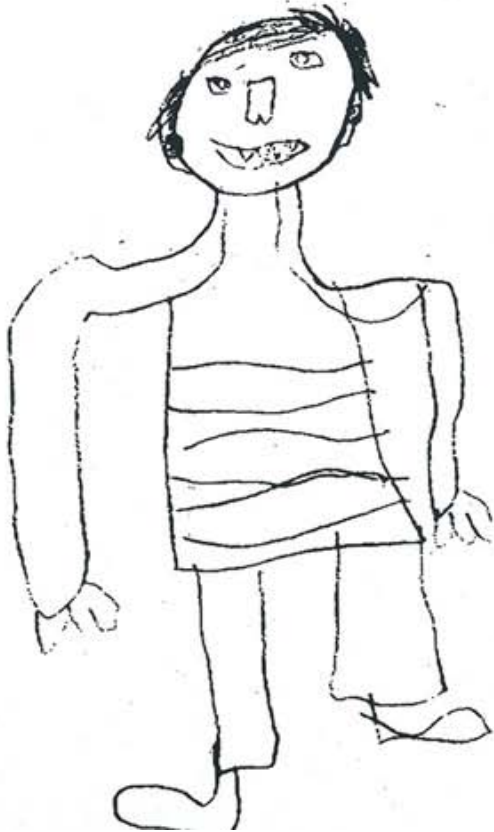
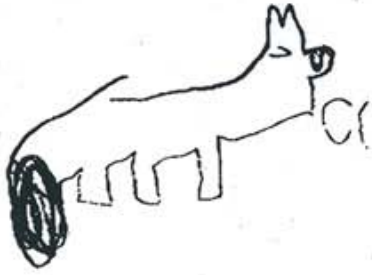
- “Tell me about the picture.”
- “What is each person doing?”
- “What are you doing?”
- “Where’s daddy?”



NOW WE ARE FOUR







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