DEVELOPMENTAL & BEHAVIORAL SCREENING TOOL MANUAL FOR PROVIDERS
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**Other Tools for Developmental Screening**

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**List of Childhood Developmental Tools**

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SUGGESTED TOOLS

<table>
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<tr>
<th>Screening Tool</th>
<th>ASQ-3 (Ages and Stages Questionnaire-3rd Edition) 1-66 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The ASQ-3 is a parent-completed questionnaire intended to screen young children for developmental delays. Each questionnaire contains questions screening areas of communication, gross motor, fine motor, problem solving, and personal-social skills.</td>
</tr>
<tr>
<td>Standardization</td>
<td>The ASQ-3 was standardized in a national sample of 12,695 children.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Test-retest reliability was found to be .91, and inter-rater reliability was found to be .92.</td>
</tr>
<tr>
<td>Validity</td>
<td>The ASQ-3 was found to have excellent validity: .82-.88.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>The ASQ-3 was found to have a sensitivity of 86% and a specificity of 85%.</td>
</tr>
</tbody>
</table>

Cost:
$249.95 ASQ-3 Starter Kit (one-time cost)
Includes: ASQ-3 User’s Guide, ASQ 3 Quick Start Guide, and a photocopiable print master set of 21 questionnaires and scoring sheets, as well as a CD-ROM with printable PDF questionnaires.

The ASQ-3 is effective and affordable. It gives reliable and accurate results, is easy to use, requires little training, is available in several languages, and includes follow-up activities.

The ASQ-3 can be used in conjunction with the ASQ:SE, but is not required.

Ordering Information:
www.brookespublishing.com/asq
1-800-638-3775
### Screening Tool

<table>
<thead>
<tr>
<th>Description</th>
<th>The ASQ:SE was created in response to feedback from the ASQ for a tool to focus on children’s social and emotional behavior. The ASQ:SE is a parent-completed questionnaire to assess children’s social-emotional development.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardization</td>
<td>The ASQ:SE was standardized on 3,014 children.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Test-retest reliability was 94% and internal consistency ranged from 67% - 91%.</td>
</tr>
<tr>
<td>Validity</td>
<td>Concurrent validity ranged from 81% - 95%.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>The ASQ:SE was found to have a sensitivity range of 71% - 85% and specificity range of 90% - 98%.</td>
</tr>
</tbody>
</table>

**Cost:**

$149 Complete ASQ:SE System *(one-time cost)*


The ASQ:SE is effective and affordable. It gives reliable and accurate results, is easy to use, requires little training, is available in several languages, and includes follow-up activities.

The ASQ-3 can be used in conjunction with the ASQ:SE, but is not required.

**Ordering Information:**

[www.brookespublishing.com/asg](http://www.brookespublishing.com/asg)

1-800-638-3775
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<tr>
<th>Screening Tool</th>
<th>BITSEA (Brief Infant Toddler Social Emotional Assessment) 12-36 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The BITSEA is a 42-item parent-report that assesses emerging social-emotional development.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Internal consistency was found to be .65-.80. Inter-rater reliability was found to be .61-.68. Test-retest was found to be .85-.87.</td>
</tr>
<tr>
<td>Validity</td>
<td>The BITSEA was found to have predictive validity of .71.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>The BITSEA was found to have a sensitivity of 80% - 90% and a specificity of 80% - 89%.</td>
</tr>
</tbody>
</table>

**Cost: (Not Reproducible)**
$105 BITSEA Kit

If social-emotional and competency development delays are identified, follow-up with the ITSEA for further assessment.

**Ordering Information:**
[www.harcourtassessment.com](http://www.harcourtassessment.com)
1-800-211-8378
### Screening Tool | Infant Development Inventory 3-18 months
---|---
**Description** | The IDI uses an Infant Development Chart that tracks development in 5 areas: social, self-help, gross motor, fine motor and language. Monthly developmental milestones on the chart help parents to see a bigger picture of how infants develop. Parents can also report any questions or concerns about their baby's health, development, behavior, etc. Professionals may further assess the infant's development by observing behaviors and recording them on the chart.

**Standardization** | The IDI was standardized with 220 children.

**Reliability** | Reliability of the IDI was found to be .70.

**Validity** | Concurrent validity of the IDI was found to be .69.

**Accuracy** | Sensitivity of the IDI was found to be 85%. Specificity was found to be 77%.

**Cost:** (Not Reproducible)
$80 Health Care Starter Pack
- Includes: 25 IDI parent questionnaires, 25 child development charts, 2 wall charts of child development.

$14 per pad of 25

**Ordering Information:**
http://www.childdevrev.com
<table>
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<tr>
<th>Screening Tool</th>
<th>ITSEA (Infant Toddler Social Emotional Assessment) 12-36 months</th>
</tr>
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<tbody>
<tr>
<td>Description</td>
<td>The ITSEA is an in-depth analysis of emerging social-emotional development and intervention guidance. It screens for strengths and weaknesses within four dimensions of social and emotional development; 1) Externalizing problems (e.g., aggression); 2) Internalizing problems (e.g., depression/withdrawal); 3) Regulatory problems (e.g., sleeping, eating, unusual sensitivities); 4) Competencies (e.g., compliance, empathy, emotional awareness). The ITSEA is designed as a follow-up to the BITSEA. The ITSEA is also designed to be used by a wide range of parents including those with limited education and from different cultural backgrounds.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Found to be moderate to high.</td>
</tr>
<tr>
<td>Validity</td>
<td>Found to be moderate to high.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Found to be moderate to high.</td>
</tr>
</tbody>
</table>

**Cost:** (Not Reproducible)

- **$219 ITSEA Complete Kit**  Includes: ITSEA Parent Forms 25, Child Care Provider Forms 25, ITSEA Manual with Scoring Assistant
  
- **$245 ITSEA and BITSEA Combo Kit (Not Reproducible)**  Includes both complete kits.

**Ordering Information:**

- [www.harcourtassessment.com](http://www.harcourtassessment.com)
  
- 1-800-211-8378
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<tr>
<th>Screening Tool</th>
<th><strong>PEDS (Parents’ Evaluation of Developmental Status) Birth-9 years</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>10 questions eliciting parents’ concerns. It is written at a 5th grade level. It is used to determine when to refer, provide a second screen, provide patient education, or monitor development, behavior/emotional and academic progress.</td>
</tr>
<tr>
<td><strong>Standardization</strong></td>
<td>PEDS was initially standardized in both English and Spanish on 771 children between 0-8 years of age from 5 states representing the broad geographic locations of the US.</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td>High inter-rater reliability was found (95%). Internal consistency was also moderately high (α=.81).</td>
</tr>
<tr>
<td><strong>Validity</strong></td>
<td>Correlations were found for concurrent validity, discriminant validity, as well as predictive validity.</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>Sensitivity ranging from 74 to 79% and specificity ranging from 70 to 80% across age levels.</td>
</tr>
</tbody>
</table>

**Cost:** (Not Reproducible)

$275 PEDS Complete Set
Includes: Brief Guide, 1 pad of 50 PEDS Response Forms, 1 pad of 50 Score/Interpretation Forms. (This is enough material to screen 50 children)

$15 per replacement pad of 50 each

$305 PEDS:DM plus PEDS: The Best Approach for Pediatric and Public Health Encounters
Includes: PEDS:DM starter kit, 100 PEDS response forms, and the PEDS brief guide

**Ordering Information:**
Ellsworth & Vandermeer Press, Ltd.
P.O. Box 68164
Nashville, TN 37206
(615) 226-4460

Or at [http://www.pedstest.com](http://www.pedstest.com) or [www.forepath.org](http://www.forepath.org)
<table>
<thead>
<tr>
<th>Screening Tool</th>
<th>PEDS:DM (Parents’ Evaluation of Developmental Status: Developmental Milestones) Birth to 7-11 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The PEDS:DM assesses each developmental domain: gross motor, fine motor, expressive language, receptive language, self-help, social-emotional, and for older children reading and math skills. It can be used with or without PEDS. It offers cutoffs and age-equivalent scores, percentage of delay (or percentage of skills mastered) in each domain. Its assessment booklets are designed for re-use on a single child to facilitate longitudinal monitoring and progress tracking. The booklets can also be used in mail-out initiatives and have a reporting grid useful for explaining results to parents and recording developmental strengths and weaknesses.</td>
</tr>
<tr>
<td>Standardization</td>
<td>The PEDS:DM was standardized on more than 1600 children in North America.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Test-retest reliability was found to be .98 to .99 and interrater reliability was found to be .82 to .96.</td>
</tr>
<tr>
<td>Validity</td>
<td>Correlations were found for concurrent validity, discriminant validity, and as well as predictive validity.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>The PEDS:DM has sensitivity and specificity between 70% and 97%.</td>
</tr>
</tbody>
</table>

**Cost:** (Not Reproducible)

$275 PEDS:DM for Pediatric and Public Health Encounters (starter kit)
- Includes: PEDS:DM Family Book (in English or Spanish) consisting of reusable laminated forms; 100 longitudinal PEDS:DM Recording Forms; and a Binder Case housing the scoring template and storage for the Family Book, manual, dry erase marker, and clip to secure the correct page.
- The starter kit also includes the PEDS:DM Professional Manual.

$15 per replacement pad of 50 each

$305 PEDS:DM plus PEDS: The Best Approach for Pediatric and Public Health Encounters
- Includes: PEDS:DM starter kit, 100 PEDS response forms, and the PEDS brief guide

**Ordering Information:**
Ellsworth & Vandermeer Press, Ltd.
P.O. Box 68164
Nashville, TN 37206
(615) 226-4460

Or at [http://www.pedstest.com](http://www.pedstest.com) or [www.forepath.org](http://www.forepath.org)
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<th>Screening Tool</th>
<th>POINT (Parents’ Observations of Infants and Toddlers) 2-36 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>A developmental rating scale designed to identify young children with potential problems who may be in need of further diagnostic assessment. POINT is a 15-20 minute screening of behaviors demonstrated by children and observed by either one or two parents, and/or one or two caregivers, all of whom know the child intimately.</td>
</tr>
<tr>
<td>Standardization</td>
<td>POINT was standardized in 2002-2003 on a national sample of 947 English-speaking parents/caregivers and 195 Spanish-speaking parents, taking into consideration gender, race, geographic location, socioeconomic level based on parental education, and chronological age of the child. Norms are provided at 2 month intervals from 2 months through 36 months.</td>
</tr>
<tr>
<td>Reliability</td>
<td><strong>Inter-rater Reliabilities</strong></td>
</tr>
<tr>
<td></td>
<td>Correlation between primary parent rater and second parent rater</td>
</tr>
<tr>
<td></td>
<td>Average of correlations between primary parent rater and center-based caregiver raters</td>
</tr>
<tr>
<td></td>
<td>Correlation between center-based caregiver raters</td>
</tr>
<tr>
<td></td>
<td>Average of correlations between second parent rater and center-based raters</td>
</tr>
<tr>
<td></td>
<td>The inter-rater reliability coefficients are generally high. The inter-rater reliability is somewhat reduced when the second parent, instead of the parent with the primary care-giving responsibilities, is used as the rater. It is reasonable to assume that the second parent generally has less continuous contact with the child when compared to the primary care-giving parent or even compared to the caregiver in a center-based program. Classification reliabilities were found to be extremely high.</td>
</tr>
<tr>
<td>Validity</td>
<td>POINT is considered to be valid based on content, relations with other variable, response processes fairness, and absence of bias.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>POINT is considered to be accurate in identifying children in need of receiving one or more special services.</td>
</tr>
</tbody>
</table>

**Cost:** (Not Reproducible)

$205 each for the English or Spanish Basic Kit
Includes Manual, Record Forms for Levels 1-6 (12 each level), 1 set of Record Forms in Spanish or English (Dependant upon the main language of the Kit), 1 set of transparent Scoring Masters for Levels 1-6 (for English and Spanish Record Forms), Duplication Masters of parents Conference Plan and the Report Card in English and in Spanish

**Ordering Information:**
[http://pearsonassessments.com/point](http://pearsonassessments.com/point)
1-800-627-7271
SUGGESTED FREE TOOLS

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<tr>
<th>Screening Tool</th>
<th>EPDS (Edinburgh Postnatal Depression Scale)</th>
</tr>
</thead>
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<tr>
<td>Description</td>
<td>The EPDS was developed to assist primary health professionals to detect whether mothers are suffering from postnatal depression. The EPDS has a maximum score of 30; a score of 10 or more may indicate possible depression of varying severity.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Reported to be adequate.</td>
</tr>
<tr>
<td>Validity</td>
<td>Reported to be adequate.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Sensitivity was found to be 86% and specificity was found to be 78%.</td>
</tr>
</tbody>
</table>

Cost:

FREE DOWNLOAD

Available from: www.dbpeds.org

Perinatal depression has substantial personal consequences and interferes with quality of child-rearing, adversely affecting parent-child interactions, maternal responsiveness to infant vocalizations and gestures and other stimulation essential for optimal child development.
Screening Tool | M-CHAT (Modified Checklist for Autism in Toddlers) 16-30 months
---|---
Description | The M-CHAT is an extension of the CHAT which was developed in Great Britain on 16,000 children across several different studies. Consistently, certain items served in the identification of children with autism spectrum disorder while also correctly identifying children with other kinds of disabilities including language impairment and mental retardation. The M-CHAT includes 9 items from the CHAT plus 21 new items.
Standardization | 1101 children participated in the norming studies for the M-CHAT and were consecutive patients receiving well-care at pediatric practices or referred for screening at early intervention services.
Reliability | Chronbach’s alpha was produced for all items and was found to be high (I=.85)
Validity | Concurrent studies deployed a comprehensive battery including the Bayley Scales of Infant Development, The Vineland Adaptive Behavior Scale, and the Childhood Autism Rating Scale. There were significant differences in the performance of children with autism spectrum disorder (ASD) on all items of the M-CHAT with the exception of an item tapping enjoying of rocking and swinging, and ability to walk.
Accuracy | The M-CHAT was sensitive to the presence of ASD at 87%, and specific to non ASD at 99%. Over-referrals, while minimal given that positive predictive value was 80%, tended to be children with other developmental disabilities.

**Ordering Information:**

**FREE DOWNLOAD**

Available from: http://www2.gsu.edu/~wwwpsy/faculty/robins.htm or www.firstsigns.org.
The M-CHAT is a copyrighted instrument, and use of the M-CHAT must follow these guidelines:

1. Reprints/reproductions of the M-CHAT must include the copyright at the bottom (? 1999 Robins, Fein, & Barton). No modifications can be made to items or instructions without permission from the authors.

2. The M-CHAT must be used in its entirety. There is no evidence that using a subset of items will be valid.

3. Parties interested in reproducing the M-CHAT in print (e.g., a book or journal article) or electronically (e.g., as part of digital medical records or software packages) must contact Diana Robins to request permission (drobins@gsu.edu).
### Screening Tool: PSI (Pediatric Symptom Checklist) 4-16 years

<table>
<thead>
<tr>
<th>Description</th>
<th>The PSI is a one-page parent-completed screening questionnaire. It lists a broad range of children’s emotional and behavioral problems that reflects parents’ impressions of their children’s psychosocial functioning.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>Test-retest reliability was found to be .84-.91. Strong internal consistency was found as well as highly significant correlations between individual PSC items and positive PSC screening scores.</td>
</tr>
<tr>
<td>Validity</td>
<td>Concurrent validity was found to be .79-.92.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>The PSC was found to have a specificity of 0.68 and a sensitivity of 0.95 when compared to clinicians’ ratings of children's psychosocial dysfunction.</td>
</tr>
</tbody>
</table>

**Cost:**

**FREE DOWNLOAD**

Available from: [http://www2.massgeneral.org/allpsych/psc/psc_home.htm](http://www2.massgeneral.org/allpsych/psc/psc_home.htm)
OTHER TOOLS FOR DEVELOPMENTAL SCREENING

The following developmental screening tools for children 0-5 years of age have been recommended by the American Academy of Pediatrics/Society for Developmental and Behavioral Pediatrics. The Zero-to-Five Dissemination project has not reviewed these instruments in detail; therefore visit the organization's website or contact the publishers for additional information and references. The Society also publishes recommendations on tools for behavioral screening. The address for the AAP/Society for Developmental and Behavioral Pediatrics is www.dbpeds.org/articles/dbtesting/.

Bayley Neurodevelopmental Screen (BINS)
3-24 months
www.psychcorp.com

BRIGANCE Screens
21-90 months
www.curriculumassociates.com

Child Development Review-Parent Questionaire (CDR-PQ)
18 months to 5 years
www.childdevrev.com

The Assessment of Basic Language and Learning Skills (ABLLS)
www.difflearn.com

The Bzoch-League Receptive-Expressive-Language Test (REEL-2), 2nd. Ed. Infants and toddlers to 3 years
www.proedinc.com

The Vanderbilt Attention Deficit/Hyperactivity Disorder Parent Rating Scale (VADPRS) and The Vanderbilt Attention Deficit/Hyperactivity Disorder Teacher Rating Scale (VADTRS)
www.aap.org
LIST OF CHILDHOOD DEVELOPMENTAL TOOLS

The following are suggested developmental tools for children ages 0 to adulthood.

Achenbach System of Empirically Based Assessment
18 months to 59 years
www.psychcorp.co.uk

Assessment, Evaluation, and Programming System for Infants and Children
Birth to 6 years
www.brookespublishing.com

Batelle Development Inventory
Birth to 7-11 years
www.riverpub.com

Carey Temperament Scales
1 month to 12 years
www.pearsonassess.com

Carolina Curriculum for Infants and Toddlers with Special Needs Assessment Log
Birth to 36 months
www.brookespublishing.com

Denver II Development Screening Test
Birth to 6 years
www.denverii.com

Devereux Early Childhood Assessment
2-5 years
www.kaplanco.com

Eyberg Child Behavior Inventory/Sutter-Eyberg Student Behavior Inventory
2 to 16 years
www.shopacer.edu.au

Functional Emotional Assessment Scale
7 months to 4 years
www.orders.balmar.com

Hawaii Early Learning Profile
Birth to 3 years
www.vort.com

Infant-Toddler Developmental Assessment
Birth to 36 months
www.riverpub.com

Infant Toddler Symptom Checklist
7 to 30 months
www.pearsonassess.com
Macarthur Communicative Development Inventories
8 to 30 months
www.brookespublishing.com

Mullen Scales of Early Learning
Birth to 68 months
www.pearsonassessments.com

The Ounce Scale
Infants/toddlers
www.pearsonassessments.com

Peabody Picture Vocabulary Test, Third Edition
2 years 6 months to 90+ years
www.pearsonassessments.com

Preschool Language Scale
Birth to 6 years
www.pearsonassess.com

Receptive-Expressive Emergent Language Test--2nd Ed.
Birth to 3 years
www.pearsonassessment.com

Rossetti Infant-Toddler Language Scale
Birth to 3 years
www.linguisystems.com

Temperament and Atypical Behavior Scale
11 to 71 months
www.brookespublishing.com
REFERENCES

www.pearsonassess.com
www.pearsonassessments.com
www.health.state.mn.us
www.brookespublishing.com
www.agesandstages.com
www2.gsu.edu/~psydir/Diana_L._Robbins,_Ph.D.
www.pedtest.com
www.firstsigns.com
www.aafp.org
www.earlychildhoodmichigan.org
www.dbped.org
www.aap.org
www.riverpub.com
www.linguisystems.com
www.shopacer.edu.au
www.kaplancp.com
www.vort.com
www.denverii.com
www.orders.balmar.com
www.psychcorp.co.uk
www.psychcorp.com
www.curriculumassociates.com
www.childdevrev.com
www.difflearn.com
www.proedinc.com