Developmental Screenings

Developmental Screening Tools and Rating Scales

The following is just a small number of the validated developmental screening tools available. They may be accessed at the website links provided. The ECSA is included in its entirety on the next page, which is free to reproduce for clinical care.

Validated scales with a per-use fee:

1. ***Ages and Stages Questionnaire (ASQ-3)*** — It takes 1-15 minutes for caregivers to complete; scoring takes 2-3 minutes. Child age range: 1 month to 5.5 years of age. Sensitivity 86%; specificity 85%. The ASQ addresses five developmental areas (communication, gross motor, fine motor, problem solving, and personal-social). http://agesandstages.com/products-services/asq3/
2. ***ASQ:SE-2*** — It takes 10-15 minutes for parents or caregivers to complete; scoring takes 2-3 minutes. Age range is 1 month through 6 years old. The Questionnaire asses seven social-emotional areas (self-regulation, compliance, communication, adaptive behaviors, autonomy, affect, and interaction with people). http://agesandstages.com/products-services/asqse-2/
3. ***Parents' Evaluation of Developmental Status (PEDS)*** — Time to administer and score is about two minutes. Child age range: birth to 8 years. Sensitivity 74-80%; specificity 70-80%. The tool elicits parents concerns about children's language, motor, self-help, early academic skills, behavior and social-emotional/mental health. www.pedstest.com

Validated scales that are free to use:

1. ***Modified Checklist for Autism in Toddlers*** — Revised (MCHAT-R) — The MCHAT takes parents 5 minutes to complete. The MCHAT is valid for children ages 16-30 months old. Sensitivity 91%; Specificity 95%. www.mchatscreen.com
2. ***Childhood Autism Spectrum Test (CAST)*** — This parental questionnaire is available through the ARC for use in research to screen for autism spectrum conditions. The target age range is 4-11 years old. Sensitivity 100%; specificity 97%. www.autismresearchcentre.com/arc_tests
3. ***Early Childhood Screening Assessment (ECSA)*** — The ECSA is a screening assessment for emotional and behavioral development as well as caregiver distress. The age range it covers is 1.5 to 5 years old. ECSA scores are associated to scores on longer, established measures including the Child Behavior Checklist. The sensitivity is 85% and the specificity is 83%.

   Scoring the ECSA: The child score is the sum of all circled numbers of items 1-36, with a maximum score of 72. A score of greater than or equal to 18 means the child needs further socioemotional assessment. Slightly more than 3/4 of children with this score will meet criteria for an impairing mental health problem. The ECSA is not valid if more than two child items are skipped.

   A parent depression score greater or equal to three suggests a higher rate of depression and should be followed up clinically. Items 38, 39, and 40 reflect caregiver distress.

   Thanks to Mary Margaret Gleason, MD for offering permission to incorporate the ECSA in the PAL Care Guide.

Early Childhood Screening Assessment (ECSA)

Child name:.....Date.....

- Please circle the number that best describes your child compared to other children the same age.
- For each item, please circle the + if you are concerned and would like help with the item.

0=Rarely/Not True 1=Sometimes/Sort of 2= Almost always/Very true *Completed by*.....

1.	Seems sad, cries a lot	0	1	2	+
2.	Is difficult to comfort when hurt or distressed	0	1	2	+
3.	Loses temper too much	0	1	2	+
4.	Avoids situations that remind of scary events	0	1	2	+
5.	Is easily distracted	0	1	2	+
6.	Hurts others on purpose (biting, hitting, kicking)	0	1	2	+
7.	Doesn't seem to listen to adults talking to him/her	0	1	2	+
8.	Battles over food and eating	0	1	2	+
9.	Is irritable, easily annoyed	0	1	2	+
10.	Argues with adults	0	1	2	+
11.	Breaks things during tantrums	0	1	2	+
12.	Is easily startled or scared	0	1	2	+
13.	Cries to annoy people	0	1	2	+
14.	Has trouble interacting with other children	0	1	2	+
15.	Fidgets, can't sit quietly	0	1	2	+
16.	Is clingy, doesn't want to separate from parent	0	1	2	+
17.	Is very scared of certain things (needles, insects)	0	1	2	+
18.	Seems nervous or worries a lot	0	1	2	+
19.	Blames other people for mistakes	0	1	2	+
20.	Sometimes freezes or looks very still when scared	0	1	2	+
21.	Avoids foods that have specific feelings or tastes	0	1	2	+
22.	Is too interested in sexual play or body parts	0	1	2	+
23.	Runs around in settings when should sit still (school, worship)	0	1	2	+
24.	Has a hard time paying attention to tasks or activities	0	1	2	+
25.	Interrupts frequently	0	1	2	+
26.	Is always "on the go"	0	1	2	+
27.	Reacts too emotionally to small things	0	1	2	+
28.	Is very disobedient	0	1	2	+
29.	Has more picky eating than usual	0	1	2	+
30.	Has unusual repetitive behaviors (rocking, flapping)	0	1	2	+
31.	Might wander off if not supervised	0	1	2	+
32.	Has a hard time falling asleep or staying asleep	0	1	2	+
33.	Doesn't seem to have much fun	0	1	2	+
34.	Is too friendly with strangers	0	1	2	+
35.	Has more trouble talking or learning to talk than other children	0	1	2	+
36.	Is learning or developing more slowly than other children	0	1	2	+
37.	I feel down, depressed, or hopeless	0	1	2	+
38.	I feel little interest or pleasure in doing things	0	1	2	+
39.	I feel too stressed to enjoy my child	0	1	2	+
40.	I get more frustrated than I want to with my child's behavior	0	1	2	+

Are you concerned about your child's emotional or behavioral development? Yes Somewhat No

Pediatric Symptom Checklist PSC-17 Description

The PSC-17 is a general mental health screening tool designed to be simple to use in primary care practices, based a longer form instrument known as the PSC-35. It can help primary care providers assess the likelihood of finding any mental health disorder in their patient. The brief and easy to score PSC-17 has fairly good mental health screening characteristics, even when compared with much longer instruments like the CBCL (Child Behavior Checklist by T. Achenbach).

A 2007 study in primary care offices compared use of the PSC-17 to simultaneous use of the CBCL in 269 children aged 8-15, showing reasonably good performance of its three subscales compared to similar subscales on the CBCL. The gold standard here was a K-SADS diagnosis, which is a standardized psychiatric interview diagnosis. These comparison statistics are summarized below, with positive and negative predictive values shown based on different presumed prevalence (5 or 15%) of the disorders. Providers should notice that despite its good performance relative to longer such measures, it is not a foolproof diagnostic aid. For instance the sensitivity for this scale only ranges from 31% to 73% depending on the disorder in this study:

K-SADS Diagnosis	Screen	Sensitivity	Specificity	PPV 5%	PPV 15%	NPV 5%	NPV 15%
ADHD	PSC-17 Attention	0.58	0.91	0.25	0.53	0.98	0.92
	CBCL Attention	0.68	0.90	0.26	0.55	0.98	0.94
Anxiety	PSC-17 Internalizing	0.52	0.74	0.10	0.26	0.97	0.90
	CBCL Internalizing	0.42	0.88	0.13	0.38	0.97	0.90
Depression	PSC-17 Internalizing	0.73	0.74	0.13	0.33	0.98	0.94
	CBCL Internalizing	0.58	0.87	0.19	0.44	0.98	0.92
Externalizing	PSC-17 Externalizing	0.62	0.89	0.23	0.50	0.98	0.93
	CBCL Externalizing	0.46	0.95	0.33	0.62	0.97	0.91
Any Diagnosis	PSC-17 Total	0.42	0.86	0.14	0.35	0.97	0.89
	CBCL Total	0.31	0.96	0.29	0.58	0.96	0.89

W Gardner, A Lucas, DJ Kolko, JV Campo "Comparison of the PSC-17 and Alternative Mental Health Screens in an At-Risk Primary Care Sample" JAACAP 46:5, May 2007, 611-618

PSC-17 Scoring:

PSC-17 Internalizing score positive if ≥ 5

PSC-17 Externalizing score positive if ≥ 7

PSC-17 Attention score positive if ≥7

PSC-17 Total score positive if ≥15

"Attention" diagnoses can include: ADHD, ADD

"Internalizing" diagnoses can include: Any anxiety or mood disorder

"Externalizing" diagnoses can include: Conduct disorder, Oppositional Defiant Disorder, adjustment disorder with disturbed conduct or mixed disturbed mood and conduct

Pediatric Symptom Checklist-17 (PSC-17)

Caregiver Completing this Form: ..... Date:.....

Name of Child:.....

	Please mark under the heading that best fits your child			For Office Use		
	NEVER	SOMETIMES	OFTEN	I	A	E
1. Fidgety, unable to sit still						
2. Feels sad, unhappy						
3. Daydreams too much						
4. Refuses to share						
5. Does not understand other people's feelings						
6. Feels hopeless						
7. Has trouble concentrating						
8. Fights with other children						
9. Is down on him or herself						
10. Blames others for his or her troubles						
11. Seems to be having less fun						
12. Does not listen to rules						
13. Acts as if driven by a motor						
14. Teases others						
15. Worries a lot						
16. Takes things that do not belong to him or her						
17. Distracted easily						
(scoring totals)						

Scoring:

- Fill in unshaded box on right with: "Never" = 0, "Sometimes" = 1, "Often" = 2
- Sum the columns.
  PSC17 Internalizing score is sum of column I
  PSC17 Attention score is sum of column A
  PSC17 Externalizing score is sum of column E
  PSC-17 Total Score is sum of I, A, and E columns

Suggested Screen Cutoff:

PSC-17 - I ≥ 5

PSC-17 - A ≥ 7

PSC-17 - E ≥7

Total Score ≥ 15

Higher Scores can indicate an increased likelihood of a behavioral health disorder being present.

Created by W Gardner and K Kelleher (1999), and based on PSC by M Jellinek et al. (1988)
Formatted by R Hilt, inspired by Columbus Children's Research Institute formatting of PSC-17

Evidence Based Mental Health Care

Throughout this guide, the treatment options listed are based on both the best available research evidence, and expert opinions from Seattle Children's Hospital Department of Psychiatry and the UW Division of Public Behavioral Health and Justice Policy.

Evidence based care is a relative concept, not an absolute one. Evidence for treatment varies in its reliability: randomized controlled trials carry a different evidence weighting than individual provider experiences. As more information emerges, what is considered the most evidence based treatment is expected to evolve. Evidence based medication treatment advice is spread throughout this guide, in tables and care flow diagrams for each included disorder. Psychosocial treatment guidance is also listed briefly within each care flow diagram.

A common theme typically emerges in both clinical experience and in the results of formal research trials: **that a combination of medical treatment and social/ behavioral care often ensures the best of outcomes.**

The importance of engaging both a child and family in treatment can not be underestimated. An "evidence based treatment" will not work if families cannot make it to appointments, or if the treatment does not meet the child's or family's own goals. Engagement can be enhanced through educating your families about what to expect. "Wraparound" programs, where available, have a philosophy emphasizing engagement and shared setting of treatment goals, and can be a further asset in this regard.

Families can find additional support from organizations like NAMI, the National Alliance on Mental Illness (www.nami.org), SAMHSA the Substance Abuse and Mental Health Service Administration (www.samhsa.gov), and the National Institute of Mental Health (www.nimh.nih.gov).