Appendix: Table showing main properties of common mental health screening and assessment tools

| Psycho-social Measure | Tools and Description  | Number of Items and Format | Age Group | Administration and Scoring Time | Psychometric Properties  | Cultural Considerationa | Cost and Developer |
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| **Broad Spectrum Psychosocial Screening Tests** | Pediatric Sympton Checklist—17 items (PSC-17)*General psychosocial screening and functional* *assessment in the domains of* *attention, externalizing, and internalizing symptoms*  | 17 items Self-administered Parent or youth >11 y | 4 to 16y | <5 min Scoring: 2 min | Subscales have obtained reasonable agreement with validated and accepted parent-report instruments.Cronbach alpha was high for each subscale. | English, Spanish Chinese, Reading level: fifth to sixthgrades | Freely accessible |
| Pediatric Sympton Checklist—35 items (PSC-35)*General psychosocial screening and functional assessment in the domains of attention,* available *externalizing, and internalizing symptoms* | 35 minSelf-administered Parent or youth >11 y | 4 to 16y  | <5 min Scoring: 1 to 2 min | General psychosocial screen Sensitivity: 80% to 95% Specificity: 68% to 100%  | English, Spanish Chinese, JapanesePictorial version | Freely accessible |
| (Strengths and Difficulties Questionnaire (SDQ)*General psychosocial screening for emotional symptoms, conduct problems, hyperactivity/ inattention, peer relationship problems, and pro-social behavior (not included in score); a separate scale assesses impact of symptoms on global functioning.*  | 25 items Self-administeredParent, teacher, or youth 11 to 17 y | 3 to 17y  | 10 min | Reliable and valid in various populations and for a number of general mental health conditionsSensitivity: 63% to 94% Specificity: 88% to 98% | >40 languages | Freely accessible |
| Early Childhood Screening Assessment (ECSA)*Assesses emotional and behavioral development in young children and maternal distress.* | 40 items, 3-point Likert scale responses, and an additional option for parents to identify whether they are concerned and would like help with an item  | 18 to 60mo  | 10 to 15 minScoring time: 1 to 2 min  | Should be administered by health professional or mental health professional whose training and scope of practice include interpreting screening tests and interpreting positive or negative screens for parents.Sensitivity: 86% Specificity: 83% | English, Spanish, Romanian Reading level: fifth grade | Freely accessible |
| Ages and Stages Questionnaire–Social Emotional (ASQ-SE)*Screens for social-emotional problems in young children.* | From 19 items (6 mo) to 33 items (30 mo) Parent report  | 6 to 60 mo | 10 to 15 min Scoring: 1 to 5 min | (can be scored by paraprofessionals)Sensitivity: 71% to 85% Specificity: 90% to 98% To be used in conjunction with ASQ or other tool designed to provide information on a child’s communicative, motor, problem- solving, and adaptive behaviours  | English, Spanish Reading level: sixth grade | Proprietary ($194.95/kit) |
| Child Behavior Checklist (CBCL) and Achenbach System of Empirically Based Assessments (ASEBA) *DSM-oriented scales assess for*(1.5 to 5 y) Pervasive developmental problems (6 to 18 y) Somatic problems Conduct problems (Both groups) Affective problems Anxiety problems Oppositional-defiant problems Attention-deficit/hyperactivity problems  | Parent or caregiver/teacher for 1.5 to 5 y: 99 items Parent/teacher: 118 items Direct observation | 1.5 to5y 6 to 18y | 15 to 20 min (both age groups) | Test-retest: 0.95 to 1.00 Inter-rater reliability: 0.93 to 0.96 Internal consistency: 0.78 to 0.97 Criterion validity was assessed and found to be acceptable. | Spanish can be ordered but tool has been translated in 74 languages Norms: African-American, Caucasian, Hispanic/Latino, other |

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| Proprietary (ASEBA) |

 ($310 to$435/kit) |
| BASC-2 (Behavior Assessment System for Children-2nd edition)82–84 and Behavioral and Emotional Screening System for Children-second edition (BESS)*Assesses adaptive and problem behaviors.* | Parent version: 134 to 160 items Teacher version: 100 to 139 items Youth versionBESS: 25-30 | 2 to 21y  | Parent /Teacher versions: 10 to 20 min Youth version: 30 minBESS: 5-10 min | Electronic scoring available Must be administered by qualified personnel Acceptable to strong reliability and validity | English, Spanish | Proprietary ($132.20 to $1,655/kit)  |
| Brief Infant Toddler Social EmotionalAssessment (BITSEA)*Screens for social-emotional problems in young children.* | 42 items Parent reportChild care report | 12 to 36 mo | 7 to 10 min | Nationally standardized on 100 children. Excellent test-retest reliability. Detected 85% to 90% CBCL.  | English, Spanish | Proprietary ($108.60/kit) |
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| ADHD Screening  | Vanderbilt Diagnostic Rating Scales73*Elicits symptoms in domains of inattention, disruptive behavior, anxiety, and depression; separate scale assesses functioning in the area of school performance.* | Parent: 55 items Teacher: 43 itmes Parent/teacher follow-up: 26 items plus items on medication side effects | 6 to 12y | 10 min | Internal consistency and factor structure are acceptable and consistent with *DSM-IV* for ADHD. Rates inattention, impulsivity/ hyperactivity, ODD, CD, depression/ anxiety, and performance.The performance section of the teacher version has high correlation with the performances questions of the SDQ (0.97). The performance section of the parent version does not have data about its concurrent validity at the current time, but can provide information about performance to be clarified in the interview with the family. | English, Spanish | Freely accessible |
| Conners Rating Scales– Revised*Elicits symptoms in domains of oppositionality, cognitive problems/inattention, hyperactivity, anxiety-shyness, perfectionism, social problems, psychosomatic problems.* | Parent: 80 itemsTeacher: 59 itemsSelf: 87 items | 3 to 17y for parent/teacher12 to 17y for self | 20 min | 6 distinct scalesAge and gender norms based on more than 11,000 ratings. | English, Spanish | Proprietary($273/kit) |
| Revised Swanson, Nolan, and Pelham (SNAP-IV-C) Rating Scale Questionnaire (Swanson et al, 1983); derived from the Conners index. *Elicits symptoms of ADHD and other* DSM-IV *disorders that may overlap with or masquerade as ADHD.* | 90 items ParentTeacher | 6 to 18 y | 10 min | Coefficient alpha for overall parent ratings is 0.94. Internal consistency, item selection, and factor structure were found acceptable and consistent with the constructs in *DSM-IV.* | A number of languages: English Chinese, | Freely accessible |
| ADHD Rating Scale-IV85,86*Rates symptoms in domains of attention, impulsivity/hyperactivity.* | Parent, teacher18 items | 5 to 17 y | 10 to 20 min | Internal consistency (coefficient alphas) for inattention and hyperactivity-impulsivity factors greater than 0.90, test-retest reliability greater than 0.80 for both factors, and significant correlations with concurrent direct observations and with other behavior rating scales  | English, Spanish | Proprietary ($46) |
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| Emotional and Behavioural Screening | Conduct Disorder Scale90 *Rates symptoms in domain disruptive behavior.* | 40 items ParentTeachers Siblings  | 5 to 22 y | 5 to 10 min | The test was standardized on1,040 persons representing the following diagnostic groups: of normal, gifted and talented,mentally retarded, ADHD, emotionally disturbed, learning disabled, physically handicapped, and persons with conduct disorder. Norms were developed based on 644 representative individuals with a conduct disorder.  | Not described | Proprietary($102/kit)  |
| CDI (Child Depression Inventory)102*Screens for depression.* | Parent: 17 items Teacher: 12 itemsYouth: 27 items(Y Short-Form: 10 items) | 7 to 17 y | 5 to 10 min (27-item) | Internal consistency coefficients range from 0.71 to 0.89 and the test-retest coefficients range from 0.74 to 0.83. | English, SpanishReading level: first grade  | Proprietary ($250/kit) |
| Spence Children’s Anxiety Scale (SCAS)*Assesses for anxiety. Subscales include panic/agoraphobia, social anxiety, separation anxiety, generalized anxiety, obsessions/ compulsions, and fear of physical injury.* | Parent: 35 to 45 Student: 34 to 45  | Parent: 2.5 to 6.5 y Student: 8 to12 y | 5 to 10 min  | Coefficient alpha: 0.9 to 0.92 Test-retest: 0.60 to 0.63 Normative data: Available for males/females 8 to 19 y from various countries (no US data available) | Available in a variety of languages  | Freely accessible |
| Self-Report for Childhood Anxiety Related Emotional Disorder (SCARED)*Assesses for anxiety—but not specifically OCD or PTSD.* | 41 itemsParentYouth | 8+ y | 5 min Scoring: 1 to 2 min | Coefficient alpha: 0.9 | English | Freely accessible  |
| Center for Epidemiological Studies– Depression Scale (CES-D)—modified version for children and adolescents*Screens for depression and emotional turmoil.*  | 20 items | 6 to 17 y | 5 to 10 min | Used in adult populations. Scores above 15 can be indicative of significant levels of depressive symptoms.Modified version for children and adolescents may not discriminate well between depressed and nondepressed adolescents. Sensitivity: 71%; Specificity: 57% | Mexican adolescentsFrenchEnglish, Spanish Reading level: sixth grade  | Freely accessible |
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| Autism and Social Communication Screening  | Modified Checklist for Autism in Toddlers (M-CHAT)Screens for children at risk of autism. | Parent-completed 23 items | 16–48 mo | 5–10 min | Standardization sample included 1293 children screened, validated using ADI-R, ADOS-G, CARS, DSM-IV; sensitivity: 0.85–0.87 (moderate); specificity: 0.93–0.99 (high) | English, Spanish, Turkish, Chinese, and Japanese versions available | Freely accessible |
| Social Communication Questionnaire (SCQ) (formerly Autism Screening Questionnaire-ASQ)Screens for children at risk of autism. | Parent-completed40 items available in 2 forms: lifetime and current; | 4 y and above | 5–10 min | Validated using the ADI-R and DSM-IV on 200 subjects sensitivity: 0.85 (moderate); specificity: 0.75 (moderate) | English and Spanish versions available | Proprietary $105 + forms @$1.60 each |
| Autism Spectrum Screening Questionnaire (ASSQ)Screens for children at risk of AS and other high-functioning disorders on the autism spectrum. | Parents,Teachers27 items that are rated on a 3-point scale | 7 – 16 years | 5 – 10 min | Cut-off score for parent >18 and teacher > 21 with sensitivity of 0.91 and specificity of 0.62 to 0.7. | English,Norwegian, Finnish | Freely accessible http://gillbergcentre.gu.se/digitalAssets/1587/1587455\_assq-english-2016-final.pdf |
| The Childhood Autism Spectrum Test (CAST), formerly known as the Childhood Asperger Screening TestScreens for children at risk of autism | Parents,Teachers37 items that are rated on a 3-point scale | 5- to 11-year | 10 – 15 min | Cut-off score of 15 or greater indicates the need for further evaluation.Specificity 0.98. | Over 16 languages | Freely accessiblehttps://www.autismresearchcentre.com/arc\_tests |

Source: Adapted from APA 2012 [101]