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 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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 min  Self-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, Japanese  Pictorial 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-administered  Parent, 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 conditions  Sensitivity: 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 min  Scoring 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 | |  | | --- | | 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 version  BESS: 25-30 | 2 to 21y | Parent /Teacher versions: 10 to 20 min  Youth version: 30 min  BESS: 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 report  Child 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 items  Teacher: 59 items  Self: 87 items | 3 to 17y for parent/teacher  12 to 17y for self | 20 min | 6 distinct scales  Age 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  Parent  Teacher | 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, teacher  18 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  Parent  Teachers 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 items  Youth: 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, Spanish  Reading 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 items  Parent  Youth | 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 adolescents  French  English, 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-completed  40 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,  Teachers  27 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 Test  Screens for children at risk of autism | Parents,  Teachers  37 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 accessible  https://www.autismresearchcentre.com/arc\_tests |

Source: Adapted from APA 2012 [101]