

General Symptom Measures

SCL-90-R, BSI, MMSE,
CBCL, & BASC-2

Symptom Checklist 90 - Revised



SCL-90-R

90 item, single page, self-administered
questionnaire.

Can usually be completed in 10-15 minutes

Intended for use as

- Quick screening instrument
- Measure of the outcome or status of
psychopathology
- Quantification of current psychopathology
along nine symptom constructs

History and Development

Evolved from the Hopkins Symptom Checklist (HSCL)

Prototype version first described in 1973, final version completed 2 years later

May be utilized with community respondents, students, medical patients, and various types of psychiatric outpatients and inpatients

History and Development

Available in English, French, Spanish, German, Russian, and 20 other languages

Microcomputer scoring, administration, and interpretation programs are also available

Symptom Constructs

Somatization

Obsessive-Compulsive Symptoms

Interpersonal Sensitivity

Depression

Anxiety

Hostility

Phobic-Anxiety

Paranoid Ideation

Psychoticism

Symptom Constructs

Three global indexes are also calculated:

Global Severity Index

Positive Symptom Total

Positive Symptom Distress Index

Scoring

Relatively simple to score by hand; computerized scoring also available

Raw scores are calculated by dividing the sum of scores for a dimension by the number of items in the dimension.

Global severity index is computed by summing the scores of the nine dimensions and additional items, then dividing by the total number of responses.

Scoring

These scores are then converted to standard T-scores using the norm group appropriate for the patient.

Published norms are provided in documentation in scoring kit and allow matching of T-scores with percentiles.

Norms

All norms are gender keyed - separate norms exist for both males and females

Currently 4 formal norms:

- Psychiatric outpatients
- Community non-patients
- Psychiatric inpatients
- Adolescent non-patients

Norms

Psychiatric Outpatients

based on 1,002 heterogeneous outpatients who presented for treatment at the outpatient psychiatry departments of four major teaching hospitals in the East and Midwest
Composed of 425 males and 577 females
Approximately two-thirds white

Norms

Community Non-patients

973 individuals who represent stratified random sample from diversely populated county in a major eastern state
50.7% of sample male, 49.3% female.
84.6% white, 11.6% black, 1.6% other racial groups
Slight majority were married
Mean age of group was 46 years

Norms

Psychiatric Inpatients

423 individuals from heterogeneous group of patients from the psychiatric inpatient services of three major eastern hospitals

Almost two-thirds female

55.7% white; 43.6% black

About 45% single; 26.1% married

Mean age 33.1 years

Norms

Adolescent Non-patients

Based on 806 adolescents enrolled in two Midwestern schools

Approximately 60% female

Almost exclusively white

Age ranged from 13 to 18 years; mean age 15.6 years

Reliability

Coefficients of internal consistency have been reported for the SCL-90-R subscales and global indexes across different patient populations

In two studies, Cronbach's alpha ranged from .79-.90

Stability coefficients have been adequate across a range of groups and test-retest interval

1 week test-retest interval: $r = .78-.90$

10 week test-retest interval: $r = .68-.80$

Validity

Studies have generally found greater support for convergent than divergent validity

Correlations between primary dimensions of SCL-90-R and three sets of scores from the MMPI demonstrated that the nine primary dimensions of the SCL-90-R correlated significantly in a convergent fashion with like score constructs on the MMPI

Validity

Studies have generally provided support for nine dimensions corresponding to the subscales of the SCL-90-R

Others have concluded that SCL-90-R is best considered a unidimensional measure of overall psychological distress

Other factor analytic studies have yielded from six dimensions to two highly correlated dimensions

Interpretation: Global Scores

Global Severity Index

Considered to be most sensitive single quantitative indicator concerning respondent's psychological distress status

Positive Symptom Distress Index

Considered to be intensity measure
Can also provide information about respondent's distress style

Interpretation: Global Scores

Positive Symptom Total

Reveals the number of symptoms the respondent has endorsed to any degree

Conveys the breadth or array of symptoms individual is currently experiencing

Indicator of whether respondent is attempting to misrepresent his or her status

Interpretation: Dimension Scores

Major advantage of SCL-90-R is that it provides a multidimensional symptom profile.

This significantly enhances the breadth of clinical assessment.

With global scores and data on specific symptoms, the development of an integrated view of a respondent's clinical status and level of well-being is greatly helped

Strengths

Brevity

Takes only 10-15 minutes to complete

Strong reliability and validity

Extensive norms

Four sets for females and four sets for males

Limitations

Lack of discriminant validity of some subscales with other similar scales.

Also, dimensional subscales lack discriminant validity with each other.

Ambiguous predictive validity.

Brief Symptom Inventory



BSI

53-item brief self-report derived from the SCL-90-R

Reflects psychopathology and psychological distress based on the same nine dimensions and three global indices of the SCL-90-R

May be used with individuals as young as 13

Scored and profiled in the same manner as the SCL-90-R

Development and History

Designed to provide multidimensional measurement of psychological distress in a brief (10-minute) evaluation

Items were selected to best reflect the nine primary symptom dimensions of the SCL-90-R in a brief measurement scale

May be used as a single, one-time assessment of clinical status or repeatedly to document outcomes or quantify pre- and posttreatment responses

Norms

Four major gender-keyed norms have been developed

Essentially the same as norms for SCL-90-R, but with more complete information on some groups

- Community non-patient normal subjects
- Heterogeneous psychiatric outpatients
- Psychiatric inpatients
- Adolescent non-patient normal subjects

Norms

Community non-patient sample identical to the sample upon which norms for the SCL-90-R were developed

More complete information was available for psychiatric outpatients sample

Psychiatric inpatient sample smaller than other samples, but consists of detailed demographic information

Males represented approximately 2:1 in adolescent non-patient norm group

Reliability

Internal consistency coefficients

Ranged from a low of .71 on the psychoticism dimension to a high of .85 on the depression dimension

Test-retest reliability

Ranged from .68 for somatization to .91 for phobic anxiety

Global Severity Index provides stability coefficient of .90

Reliability

Although there is no true alternate form of the BSI, high correlations exist between the BSI and SCL-90-R on all nine symptom dimensions

Validity

Collective studies have shown the BSI to be broadly sensitive to manifestations of psychological distress and interventions designed to improve it across a range of contexts

Scoring and Interpretation

Methods and strategies are essentially identical to those for the SCL-90-R.

Strengths and Limitations

Similar to those of the SCL-90-R.

Mini Mental State Examination



MMSE

Takes only 5-10 minutes to administer
This makes it practical to use repeatedly and routinely

Non-timed, 11-question measure that tests five areas of cognitive functioning:

- Orientation
- Registration
- Attention and Calculation
- Recall
- Language

MMSE

Divided into two sections:

First part requires vocal responses only and covers orientation, memory, and attention

Second part tests ability to name, follow verbal and written commands, write a sentence spontaneously, and copy a complex polygon

Population

Effective as a screening tool for cognitive impairment in older, community dwelling, hospitalized, and institutionalized adults

Assessment of an older adult's cognitive functioning is best accomplished when done routinely, systematically, and thoroughly

Reliability

Reliable on 24 hour or 28 day retest by single or multiple examiners

When given twice, 24 hours apart by same tester, correlation by Pearson coefficient was 0.887. As high as 0.827 when different tester was used for second trial

When given twice an average of 28 days apart, there was no significant difference in the scores

Validity

Concurrent validity was determined by correlating scores with the WAIS Verbal and Performance scores

For MMSE & Verbal IQ, Pearson $r = 0.776$

For MMSE & Performance IQ, Pearson $r = 0.660$

Scoring

Maximum score is 30

Total score of 23 or lower indicates cognitive impairment

If patient is *physically* unable to complete a task (e.g., draw a shape), then that task is skipped and the total score is reduced by 1

Strengths

Effective as screening instrument to separate patients with cognitive impairment for those without it

When used repeatedly, it is able to measure changes in cognitive status that might benefit from intervention

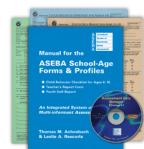
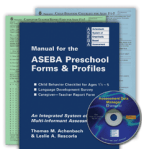
Limitations

Not able to diagnose the cause for changes in cognitive function

Should NOT replace complete clinical assessment of mental status

Relies heavily on verbal response, reading, and writing

Child Behavior Checklist



CBCL

Used to assess wide range of emotional and behavioral problems in children based on parental report

Consists of 113 items

2 broadband factors and 8 narrowband factors derived during development of the scale

Also contains Competence Scale

Broadband Factors

Internalizing

Externalizing

Broadband Scoring

Normalized T-scores available

Created by comparing obtained raw scores with scores from a normative sample of non-referred children

T-scores between 60 and 63 considered borderline clinical range; above 63 considered clinical range.

Narrowband Factors

- Withdrawn
- Somatic Complaints
- Anxious/Depressed
- Social Problems
- Thought Problems
- Attention Problems
- Delinquent Behavior
- Aggressive Behavior

Narrowband Scoring

Normalized T-scores

T-scores between 67 and 70 designated as borderline clinical; above 70 considered clinical range.

Competence Scale

CBCL Competence Scale is designed to obtain information about children's competence as rated by a parent in a standardized format

Consists of 20 items

Contains three subscales: Activities, Social, and School

Competence Scale Subscales

Activities

Composed of parent ratings of child's participation in sports, solitary activities, and chores.

Social

Parent ratings of child's participation in organized activities, number of friends and frequency of contact, behaviors with others, and ability to work and play independently.

Competence Scale Subscales

School

Parent ratings of child's performance in academic subjects and history of special class placement or grade repetition and school problems

Teacher's Report Form (TRF)

Intended for teachers of youths aged 5 to 18 years.

Contains 93 of the original 113 items from CBCL.

Yields problem behavior scores comparable to those of the CBCL.

Teachers also rate academic performance on a 5-point scale and adaptive functioning

Youth Self-Report (YSR)

Designed for use with children and adolescents aged 11 to 18 years.

Contains all items from CBCL except those deemed inappropriate for adolescents.

Youths rate themselves for how true each item is now or has been over past six months.

Norms

1991 version of CBCL normed on 2,368 non-referred children and adolescents

Generally representative of U.S. population regarding gender, ethnicity, SES, geographic region, and area of residence

Reliability

Internal consistency of most CBCL subscales reported to be higher than 0.80

1-week test-retest reliability reported to be 0.89 for behavior ratings and 0.87 for social competence component

Interparent agreement range from 0.52 to 0.99

Internal consistencies very good for problem behavior but modest to poor for competence scales

Validity

Discriminative validity demonstrated by studies that show it distinguishes between clinic-referred and non-referred children

Should be used in addition to other measures of child behavior and self-report

Subscales of CBCL correlate with subscales on other instruments

Validity of Social Competence scales has been questioned and may need further development

Scoring

Raw scores on each subscale converted to standard scores and percentile ranks.

Below 67 within normal range; 67-70, borderline clinical range; above 70, clinical range.

Recent research shows T-scores as low as 65 may indicate clinically significant impairment.

Scoring for Competence Scale

Range for raw scores is 0-10 on Activities subscale, 0-12 on Social subscale, and 0-6 for school subscale

Total competence score is generated when scores from three subscales are added together

Amount and quality of participation scored independent of number of activities listed

Strengths

Well-known and easily interpreted

Strong treatment utility and facilitate diagnostic decision-making and treatment planning

Numerous translations make useful for assessing refugees and immigrants whose host countries need to provide services

Easy to apply to many kinds of research

Limitations

Does not make clear distinction between depression and anxiety or between inattentive and hyperactive behaviors

Social competence scales need improvement

Other Forms

CBCL/ 1 ½ -5

Revised version contains 110 items

Spans ages 1 ½ to 5 years

Language Development Survey for ages 18-35 months is unique to this scale

CBCL/ 6-18

Spans ages 6-18 years

Items describe behavioral and emotional problems

Some items are similar to items on other forms, but others focus on problems relevant to older ages

Behavior Assessment System for Children, Second Edition



BASC-2

Purpose is to provide thorough and comprehensive assessment of emotional and behavioral problems in children and adolescents

Can be utilized in home, school, or clinical setting

Consists of three separate rating scales, Student Observation System, and Structured Developmental History

Report Forms

Teacher Rating Scale (TRS)

Completed by teacher or school administrator familiar with student and student's behavior
Has alternate versions appropriate for pre-school, child, and adolescent populations
Approximately 10-20 minutes to complete

Parent Rating Scale (PRS)

Completed by student's parent or guardian
Also has versions for different age ranges
Approximately 10-20 minutes to complete

Report Forms

Self-Report of Personality (SRP)
Child and adolescent versions
Around 30 minutes to complete

Other Components

Structured Developmental History (SDH)
Quite lengthy
May be administered as a questionnaire or a structured interview

Student Observation System (SOS)
Assesses child or adolescent behavior in the classroom

These provide a standardized format for conducting observations and interviews

Population

The TRS, PRS, SDH, and SOS are intended for ages 4-18 years

The SRP is intended for children aged 8-18

Norms

TRS and PRS normed on over 1,400 and SRP normed on over 4,800 children and adolescents from both clinical and non-clinical populations

Norms provided for both males and females

Standardization was intended to reflect 1988 U.S. Census data concerning race, gender, and level of parental education

Reliability

Internal consistency for the three rating scales averages between 0.70 and 0.90 across scales and composites

Two to eight week test-retest reliability estimates were acceptable across all forms

No reliability data is available for the SOS

Validity

Factor analytic data support scale construction of the TRS, PRS and SRP

Due to a lack of correlation with other measures, it is suggested that the content of the Teacher Rating Scale is inequivalent to that of other popular teacher rating scales

Scoring

TRS and PRS contain items rated in 4 point Likert-like format (1="never" to 4="almost always").

SRP requires True-False responses.

Raw scores from TRS, PRS, and SRP are converted to T-scores and percentile scores.

Higher scores represent greater symptomatology or higher levels of problem behavior.

Strengths

Assesses several constructs not appearing in other similar assessment systems

Self-reliance, leadership, and other forms of adaptive behavior

Well-normed

Psychometrically sound

Useful in a variety of research and clinical purposes.

Limitations

Some items poorly worded on SRP may confuse children

Procedure for recording behavior in the SOS is unusual

While BASC-2 purports to function as a system, a mechanism for integrating obtained information is not provided
