

Early Childhood Measurement and Evaluation Tool Review

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Infant-Toddler Social and Emotional Assessment (ITSEA)

Measurement Areas:

The Infant-Toddler Social and Emotional Assessment (ITSEA) is a standardized norm referenced instrument designed to assess the social emotional problems and competencies of children 12 to 36 months of age. It measures four domains: Externalizing problems, Internalizing problems, Dysregulation and Competence.

Purpose:

The ITSEA can be used when there is a need to gather information that will identify of a child's problem behavior and competencies that made need further evaluation or to aid in the development of a treatment plan.

Length and Structure:

The ITSEA has two forms: a Parent Form and a Childcare Provider Form. Both forms can be self-administered or administered as a structured interview. If both parents fill out self-administered questionnaires, it is important that they do so independently. The Parent Form consists of 4 domains with 17 subscales for a total of 166 items. The Childcare Provider Form is the same as the Parent Form *with the addition of 7 items that are specific to childcare* (Baxter, 2007). Three clusters can also be calculated: Maladaptive, Social Relatedness, and Atypical. The respondent rates each item on a 3 point scale (0=not true/rarely, 1=somewhat true/sometimes, 2=very true/always). For certain items a respondent may also respond "N" which means "no opportunity". The assessment can be completed by a parent or childcare provider in approximately 20-30 minutes.

Materials:

The authors indicate that the ITSEA is most appropriate for use in clinical settings. The publisher classifies the ITSEA as a "C-level" qualification and requires the purchaser to fit into one of two categories: (a) Professional Licensure/Registration to independently practice psychology, or (b) a Doctorate degree in psychology, education, or relevant field. The authors recommend that professionals (i.e. psychologists, psychiatrists, mental health care providers, early interventionists,

social workers, pediatricians, nurse practitioners, or trained pediatric nurses or school staff members) using this tool have supervised developmental and mental health training directed at providing services with parents and young children. Training with the tool is recommended for interpreting the scores.

The ITSEA kit is available from the publisher for \$230.00 USD. The kit includes the ITSEA Manual, BITSEA manual, 25 each of ITSEA Parent Forms and Childcare Provider Forms, and 25 each of the BITSEA Parent Forms and Childcare Provider Forms and Scoring Assistant.

Accessibility:

The ITSEA is available in English and Spanish. The ITSEA is a standardized instrument and therefore normative data are provided in the manual.

Administration, Scoring, and Interpretation:

The instrument is usually self-administered however it can also be used as a structured interview. Although the ITSEA can be scored both by hand and by Scoring Assistant Software, the manual recommended using Scoring Assistant as the most efficient way. Both Parent Form and Childcare Provider Form are scored in the same manner. The average subscale scores are added and averaged depending on the number of questions answered. The scores are then converted to T-scores and percentile ranks within age and gender groups (Baxter, 2007). On the Externalizing, Internalizing, and Dysregulation scales, a T-score of 65 or higher are termed “of concern”. Similarly, T-scores of 35 or lower on the Competence scale are also termed “of concern” (Baxter, 2007). The examiners manual provides explanations for hand scoring and devotes a chapter to score interpretation including exemplar clinical cases.

Subscales:

The ITSEA has four domains, each with several subscales. In addition there are three item clusters (Maladaptive, Social Relatedness and Atypical). The domains and subscales are as follows:

- **Externalizing**
 - Activity/Impulsivity
 - Aggression/Defiance
 - Peer Aggression

- **Internalizing**
 - Depression/Withdrawal
 - General Anxiety
 - Separation Distress
 - Inhibition to Novelty

- **Dysregulation**
 - Negative Emotionality
 - Sleep
 - Eating
 - Sensory Sensitivity

- **Competence**
 - Compliance
 - Attention
 - Mastery Motivation
 - Imitation/Play
 - Empathy
 - Prosocial Peer Relations

Documentation:

The manual for the ITSEA contains procedures for administration, scoring, as well as a chapter on interpretation that includes case examples. The manual also has an extensive technical section discussing the instrument's psychometric properties and various forms of validity and reliability. Information on the standardization sample is also included in the technical section of the manual.

Norming Sample:

The ITSEA was standardized using a U.S. sample of 600 children ranging from age 12 months to 35 months 30 days. Four age bands of 150 children (75 males and 75 females) were represented: 12 to 17 months, 18 to 23 months, 24 to 29 months and 29 to 35 months 30 days. The sample was stratified according to the 2002 US census and included demographic variables such as sex, ethnicity, geographic region and parents' education level. The sample consisted of 5 race/ethnic backgrounds: Asian (5%), Black (16.2%), Hispanic (20%), Caucasian (57.8%), and Other (1.2%). The manual has detailed information regarding demographic information of the standardization sample.

Reliability:

Internal Consistency: The manual provides a description of an analysis of internal consistency for the Parent Form. The analysis yielded a Cronbach's alphas in the range of .85 to .89 for the overall sample of girls and a range of .85 to .90 for the overall sample of boys. For the individual subscales coefficient alphas ranged between .66 and .79 for the externalizing subscales, between .52 and .73 for the internalizing subscales, between .62 and .83 for the Dysregulation subscales, and between .56 and .79 for the competence subscale.

Test-retest Reliability: Test-retest reliability data was compiled using the responses of 84 parents on two administrations of the ITSEA. The average duration between the two administrations of the ITSEA reported to be 6 days. For the total sample, Pearson correlations were between .76 and .91 for the domains. For the individual subscales within the externalizing domain, the test-retest reliabilities were between .81 and .90. For the subscales on the internalizing domain, reliabilities were found to be between .78 and .83. For the Dysregulation domain subscales, coefficients ranged between .81 and .92. The competence domain subscales were found to have reliability correlations between .75 and .85. The item clusters demonstrated test-retest reliability coefficients between .64 and .83.

Interrater Reliability: The authors indicate that interrater reliability was determined using Intraclass Correlations Coefficients. Data was gathered from 94 parent pairs across the age samples. Interrater reliability coefficients for the domains ranged between .72 and .79. Interrater reliabilities for the subscales composing the Externalizing domain ranged between .68 and .77. For

the Internalizing domain, subscale reliability coefficients were between .51 and .73. The Dysregulation domain subscales demonstrated coefficients in the range of .61 to .81. The Competence subscales demonstrated reliabilities in the range of .51 to .83. The interrater reliabilities for the cluster scores were found to be within .44 to .70.

Validity:

The ITSEA manual includes extensive data on test validity. Many types of validity evidence is reported including: evidence based on content, response process, internal structure, relationships to other scales and special group studies.

Content Validity: In order to ensure the instrument was developed with appropriate content, the authors guided test construction by existing literature, the author's earlier work in this area, and from other instruments designed for use with older children (Konold, 2007). Originally 200 items were developed to tap the proposed domains. Twelve experts in the field of socio-emotional development and psychopathology in early childhood reviewed the items to ensure they fit appropriately within age groups and domains (Konold, 2007). After expert review, items were revised and pilot tested with parents of clinically referred children. Subsequently further revised were made based on parents and clinicians feedback.

Validity Evidence for the Response Process: According to the authors, this type of evidence was obtained through both qualitative and empirical response processes. Originally, the pilot version had a 4-point response scale; due to parent difficulty in selecting an appropriate response on the 4-point scale a 3-point scale was implemented. In addition, items were modified when parents provided examples of an item that were different from the intention of the item.

Validity Evidence for the Internal Structure: Validity evidence based on internal structure is provided by confirmatory factor analysis and domain and subscale intercorrelations. The results of the confirmatory factor analysis studies indicate that the hypothesized factor structure of the ITSEA Parent Form was supported and the theoretically linked items hang together statistically. The correlations between the domain scores and their respective subscale scores were reported to be moderate to strong for the normative sample. The corrected correlation were reported as follows: Externalizing domain score and the Externalizing subscales ranged from $r = .50$ to $.69$; Internalizing domain score and the Internalizing subscales ranged from $r = .34$ to $.42$; Dysregulation domain score and Dysregulation subscales ranged from $r = .32$ to $.47$; and Competence domain scores and subscale scores ranged from $r = .62$ to $.69$. The correlation between the broad Problem domains indicates that the Externalizing and Internalizing domains are related ($r = .43$) but not to an extent that they would be considered to be measuring one construct instead of two. The Dyregulation scale was correlated to the Externalizing ($r = .50$) and Internalizing ($r = .53$).

The ITSEA Competence domain and the Problem domains indicated low correlations (with Externalizing $r = -.23$, with Internalizing $r = -.27$ and with Dsyregulation $r = -.27$). This evidence supports the assertion that the Competence domains and Problem domains measure separate constructs. Information on the intercorrelations between the individual subscales are also presented in the manual.

Validity Evidence for the Relationship to Other scales: The relationship between the Parent ratings on the ITSEA and Parent ratings on the Child Behavior Checklist, the Ages and Stages Questionnaires: Social-Emotional, the Adaptive Behavior Assessment System, Second Edition and Bayley Scales of Infant and Toddler Development-Third Edition, were evaluated. The Examiner's manual presents extensive data as well as explanations of the relationships between the ITSEA domains and scales and the above mentioned instruments' domains and scales. The general findings are that the ITSEA scale and domains are positively related to similar domains and scales of other measures and are negatively related to dissimilar domains and scales of the other measures (Baxter, 2007). This provides evidence of both convergent and divergent validity.

Validity Evidence for Studies with Special Groups: Another way to demonstrate validity is to show that the instrument produces distinctive score profiles for special populations (i.e. developmentally delayed (N=93), language delayed (N=56), premature birth (N=46), autistic disorder (N=33) and those with mental health issues (N=22)). Each of these groups was matched with a non-clinical control group. Extensive data is presented in the manual on the results of the ITSEA with these special groups. General findings were that the ITSEA demonstrated differences between the groups which provide some evidence of the specificity and sensitivity of the ITSEA (Baxter, 2007).

Publication Information:

The Infant-Toddler Social and Emotional Assessment was developed by Alice S. Carter and Margaret J. Briggs-Gowan. This review is based on the 2006 edition published by PsychCorp: A Brand of Harcourt Assessment.

References:

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