**MEASURE NAME:** Eyberg Child Behavior Inventory  
**Acronym:** ECBI

### Basic Description

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**To Obtain:** Psychological Assessment Resources, Inc.  
16204 N. Florida Avenue  
Lutz, FL 33549  
1-800-331-8378

The measure is also included as an appendix in the manual for Parent-Child Interaction Therapy:


**E-mail:** custserv@parinc.com  
**Website:** www.parinc.com  
**Cost per copy (in US $):** $1.24  
**Copyright:** Yes

**Description:** This parent-rating scale is used to assess both the frequency of child disruptive behaviors and the extent to which the parent finds the child’s behavior troublesome. It has been widely used in treatment outcome studies for disruptive disorders. It can be used in combination with the SESBI-R, a teacher-report version. It is not a diagnostic tool.

### Theoretical Orientation
**Summary:**

### Domains Assessed:

1. **Externalizing Symptoms (child)**
2. **General symptomatology (child)**
3.
4.
5.
6.

### Languages Available:
Chinese, English, German, Japanese, Korean, Lebanese, Norwegian, Russian, Spanish, Swedish
**Age Range:** 2.00 - 16.0  
**Measure Type:** Screening  
**# of Items:** 36  
**Measure Format:** Questionnaire  
**Time to Complete (min):** 5  
**Reported by:** Parent/caregiver  
**Time to Score (min):** 5  
**Education Level:** 6.00  
**Periodicity:** Unknown  
**Response Format:**  
- Problem Scale: Yes/No questions  
- Intensity Scale: 7-point Likert scale (1=Never to 7=Always)

**Materials Needed:**  
- Yes  
  - Paper and pencil  
  - Computer  
  - Video equipment  
  - Testing stimuli  
  - Physiological equipment  
  - Other

**Material Notes:**  
1. ECBI Test Sheets (pkg/25): $31 (Pricing is based on purchase of this item.)
2. ECBI/SESBI-R Professional Manual: $43
3. ECBI/SESBI-R Introductory Kit: $159 (Includes ECBI/SESBI-R Professional Manual, 50 ECBI Test Sheets, and 50 SESBI-R Test Sheets.)

**Sample Items:**

<table>
<thead>
<tr>
<th>Domains</th>
<th>Scale</th>
<th>Sample Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Externalizing Symptoms (child)</strong></td>
<td><strong>Problem Scale</strong></td>
<td>Item (Is this a problem for you?) (Yes/No)</td>
</tr>
<tr>
<td><strong>Intensity Scale</strong></td>
<td>Item (1=Never to 7=Always)</td>
<td></td>
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</tbody>
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**Information Provided:** (check all that apply)

<table>
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<tr>
<th>Information Provided</th>
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<tbody>
<tr>
<td>Diagnostic information DSM-III</td>
<td>Yes</td>
<td>Standard Scores</td>
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<tr>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>Diagnostic information DSM-IV</td>
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<tr>
<td>Strengths</td>
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<tr>
<td>Areas of concerns/risk</td>
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<tr>
<td>Program evaluation information</td>
<td>Yes</td>
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<tr>
<td>Continuous assessment</td>
<td>Yes</td>
<td>Written feedback</td>
</tr>
<tr>
<td>Raw Scores</td>
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**Training**

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<td>(check all that apply)</td>
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<tr>
<td>Yes</td>
<td>Via manual/video</td>
<td>Training by experienced clinician (&lt;4 hours)</td>
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<tr>
<td>Prior experience psych testing &amp; interpretation</td>
<td>Training by experienced clinician (&gt;4 hours)</td>
<td></td>
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**Eyberg Child Behavior Inventory**

NCTSN Measure Review Database  
[www.NCTSN.org](http://www.NCTSN.org)
### Parallel or Alternate Forms

<table>
<thead>
<tr>
<th>Parallel Forms?</th>
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<tr>
<td>If so, are forms comparable:</td>
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</tr>
<tr>
<td>Any Altered Versions of Measure:</td>
<td>Yes</td>
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</table>

**Describe:** Sutter-Eyberg Student Behavior Inventory-Revised (SESBI-R): A teacher-report version of this measure, also reviewed in the database.

### Population Used to Develop Measure

According to the ECBI Manual (p. 9): The ECBI was first standardized between 1980 and 1983 on parents of children from a pediatric clinic of a large medical school in the Northwestern United States. Primarily the children were from lower- to lower-middle income Caucasian families. It was restandardized in 1999 with a sample that represented the general child population in the Southeastern United States. There were 798 children between ages 2 and 16.

1. Gender: 52% Male, 48% Female
2. Ethnicity: 75% Caucasian, 19% African American, 3% Hispanic, 1% Asian, 1% Native American, and 2% Mixed Ethnicity
3. SES (According to Hollingshead (1975): 12% Lowest SES, 25% GROUP II, 22% GROUP III, 22% GROUP IV, and 10% Highest SES
4. Region: 61% Urban, 39% Rural

### Psychometrics

**Global Rating (scale based on Hudall Stamm, 1996):**

- Psychometrically matured, used in multiple peer reviewed articles by different people

**Norms:**

- For separate age groups: Yes
- For clinical populations: Yes
- Separate for men and women: Yes
- For other demographic groups: Yes

**Notes:** The ECBI was originally standardized on parents of preadolescent children in 1980. It was standardized on parents of adolescents in 1983. Primarily, these children were from lower- and lower-middle SES White families recruited from a pediatric outpatient clinic located in a large urban medical school in the Northwest U.S. (Eyberg & Robinson, 1983; Robinson, Eyberg, & Ross, 1980).
The ECBI was later standardized by independent investigators on two additional samples in the Northwest.

1. Burns & Patterson (1990) reported norms from 1003 children in grades 1-12 recruited through mailings to parents in the Seattle School District (30% return rate).

Sample characteristics were as follows: 52% male, 48% female

Ethnicity: 7% Asian, 8% Black, 78% White, 7% mixed ethnicity

Education: 5% less than high school, 25% high school, 23% some college, 25% college degree, and 22% some graduate work

Income: 21% (0-$19,000), 19% ($20,000-$29,000), and 61% (< $30,000)

They reported significant age effects on the intensity and problem score but no meaningful and significant gender effects. In this sample, 7.9% of children scored in the clinical range.

2. Burns, Patterson, Nussbaum, & Parker (1991) provide norms for 1,526 children aged 2 to 7 (M=7.08, SD=3.90) recruited from 5 pediatric clinics.

Sample characteristics were as follows: 53% Male, 47% Female; 90% White, 4% Native American, 2% Black, <1% Asian, <1% Hispanic, and 3% Mixed Ethnicity.

Average education of reporters was 13.36 grades (SD=2.51).

Income: 18% (< $10,000), 17% ($10,000-$19,000), 25% ($20,000-$29,999), 40% (> $30,000)

They reported significant effects for child gender for both Frequency and Problem scores with boys rating higher than girls; however, they noted that the difference accounted for <1% of the variance.

They also found significant age effects for Frequency and Problem scales, with children 2-5 having higher Frequency scores than the other 3 age groups, and children 6-9 scoring higher than older age groups. In this nonclinical sample, 10.4% of children scored in the clinical range on the ECBI.

Note: Norms provided by Burns and colleagues are provided by gender and age (2-5, 6-9, 10-13, 14-17). ECBI norms, specifically those collected by Burns & Patterson (1990) and Burns et al. (1991) have been critiqued by Achenbach (2001) as not being representative of the populations generally studied. In addition, given the response rates, it is questionable as to whether the norms are representative. Colvin et al. (1999a) critiqued the Burns norms stating that the Burns et al. (1991) sample was unbalanced, given that nearly half the children were aged 2-5, and the Burns et al. (1991) sample included 17-year-olds, which is outside the ECBI age range. In addition, both samples had exclusions that would affect the base rate of behavior problems including exclusion of those with a history of treatment for...
learning disabilities or behavior problems.

The ECBI was restandardized in 1999 on parents from six outpatient pediatric clinics in the Southeast U.S. (Colvin, Eyberg, & Adams, 1999a).

1. This sample consisted of 798 children, aged 2 to 16, with each of the 15 age groups equally represented. The sample was 52% male and 48% female. The sample consisted of 74% Caucasian, 19% African-American, 3% Hispanic, 1% Asian, 1% Native American, and 2% of Other or Mixed Ethnicity.

Children resided with both natural parents (53%), with their mother and stepfather (14%), with their father and stepmother (1%), with their mothers only (26%), with their fathers only (1%), and with foster parents or other relatives (5%).

SES: 21% low, 25% middle-low, 22% middle, 22% middle-high, 10% high; 61% lived in an urban county and 39% lived in a rural county. Norms are presented by gender and age (separately by each year 2-16).

<table>
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<td>Specify Studies:</td>
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Reliability:

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Notes:

**TEST-RETEST RELIABILITY**

Funderburk, Eyberg, Rich, & Behar (2003) reported 10-month test-retest stability with a sample of 88 predominantly Caucasian middle- to upper-middle-class families: Intensity (32)=.75, p<.0001; Problem )r=.75, p<.0001).

**INTERNAL CONSISTENCY**

Cronbach’s alpha avg: .94 (I), .93 (P)

**INTRERRATER RELIABILITY**

Scores above are for pairs of mothers and fathers as cited in the manual.

Eisenstadt, McElreath, Eyberg, & McNeil (1994) reported correlations between maternal and paternal reports for intensity (r=.69) and problems (r=.61).

Although they were not studying interrater reliability, Calzada, Eyberg, Rich, & Querido (2004) report on correlations between maternal and paternal ECBI scores. Intensity scores were significantly correlated, r=.64. The correlation for problem scores was r=.40, which was not significant, given a Bonferroni correction.

Content Validity:

Items are face valid.

Construct Validity: (check all that apply)

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</table>

Notes:

ECBI scores have been found to correlate with CBCL externalizing scales (Boggs et al., 1990). Consistent with the literature, ECBI scores also correlate with indicators of marital functioning, parenting stress, parenting behaviors, and maternal history (Bearss & Eyberg, 1998; Benzies, Harrison, & Magill-Evans, 1998; Bor & Sanders, 2004; Eyberg, Boggs, & Rodríguez, 1992; Webster-Stratton, 1988). They have also been found to correlate with scores on the Children’s Perceptual Alteration Scale (Evers-Szostak & Sanders, 1992).
Correlations with the SESBI, the teacher-report form of the ECBI, have been inconsistent. Funderburk et al., 2003 found no significant correlations between ECBI and SESBI scores.

McNeil et al. (1991) also found no significant ECBI and SESBI correlations, but pre- to post-treatment change scores were highly correlated, suggesting that while parents and teachers have different perspectives on relative standing of behavior problems, both recognize change and agree on magnitude of change.


The measure has been shown to be sensitive to treatment effects at posttest and follow-up for multiple treatment for disruptive disorders including Parent-Child Interaction Therapy (Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993; Nixon, Sweeney, Ericson, & Touyz, 2003) and the Partners Parent Training Groups (Webster-Stratton, 1998). ECBI clinical cutoffs have provided evidence for the clinical significance of treatment effects. Change in ECBI scores as a result of treatment are related to scores on the Therapy Attitude Inventory, a consumer satisfaction measure (Brestan, Jacobs, Rayfield, & Eyberg, 1999).

A number of studies have examined the factor structure of the ECBI, but results have not been consistent, and there are data suggesting that the ECBI might best be viewed as measuring 3 factors. Burns and Patterson (2000) conducted an exploratory factor analysis of 1,263 children and adolescents and identified 3 meaningful factors and a fourth poorly defined factor.

Confirmatory factor analysis with a second sample of 1,264 children and adolescents revealed that best model was the 3-factor model: 1) Oppositional Defiant Behavior Toward Adults, 2) Inattentive Behavior, and 3) Conduct Problem Behavior. Gross et al. (2003) used these factors and reported alpha reliabilities of .79, .73, and .72.

Colvin et al. (1999a) conducted principal components analysis and reported results were not suggestive of multiple factors.

STUDIES WITH TRAUMA-EXPOSED INDIVIDUALS
1. The ECBI has been found to detect change over treatment in a sample of 15 girls aged 9-12 who had experienced sexual abuse (McGain & McKinsey, 1995).

2. Zahr (1996) used the ECBI in a study of the impact of heavy shelling on 100 preschool Lebanese children aged 3-6. Children who lived in heavy shelling areas had higher ECBI scores than those not exposed to shelling.

3. Bradley & Peters (1991) found that abusive and clinically involved parents identify more problem behaviors using the ECBI than do community parents.


STUDIES WITH OTHER CULTURAL GROUPS AND DIVERSE POPULATIONS
1. The ECBI has been used in multiple studies with low-income African American families. Bendell, Stone, Field, & Goldstein (1989) found ECBI scores correlated with the PSI. Dawkins, Fullilove, & Dawkins (1995) administered the ECBI to 99 mothers of African American inner-city children aged 3-4. Scores were lower than scores for the treatment sample reported in Eyberg & Ross (1978) but higher than was reported for children with no history of behavior problems. Capage, Bennett, & McNeil (2001) found no difference between African American and Caucasian families in terms of ECBI scores before and after treatment.

2. The ECBI has been used in a sample of 91 Hong Kong Chinese children aged 3-7. For all time periods (pre- and post-intervention) internal consistency was > .88. The ECBI was sensitive to treatment effects in this sample (Leung, Sanders, Leung, Mak, & Lau (2003)).

3. Brubaker & Szakowski (2000) used the ECBI with a sample of deaf children (n=39) and found a positive relationship between inconsistent parental discipline practices and ECBI scores.

4. The ECBI has been used with children with learning disabilities (e.g., Eyberg & Pincus, 1999).

5. The ECBI has been used in a number of studies involving children with developmental disabilities with results providing evidence of validity and reliability. Populations include children with autism, Down Syndrome, developmental delays, Asperger Syndrome (Sofronoff, Leslie, & Brown, 2004), and cerebral palsy (Dumas et al., 1991; Glenwick, 1998).

### Criterion Validity: (check all that apply)

<table>
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<th>Measures used as criterion:</th>
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</table>

**Notes:**

Limitations of Psychometrics and Other Comments Regarding Psychometrics:

No studies to date have shown the criterion validity for this measure. Otherwise the measure seems psychometrically sound and has been well studied in diverse populations, including individuals of lower SES.

### Consumer Satisfaction

Unknown
<table>
<thead>
<tr>
<th>Language</th>
<th>Translation Quality (check all that apply)</th>
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</thead>
</table>
| 1. Spanish | 1 = Has been translated  
2 = Has been translated and back translated - translation appears good and valid.  
3 = Measure has been found to be reliable with this language group.  
4 = Psychometric properties overall appear to be good for this language group.  
5 = Factor structure is similar for this language group as it is for the development group.  
6 = Norms are available for this language group.  
7 = Measure was developed for this language group. |
| 2. Lebanese | Yes |
| 3. Chinese | 1 = Has been translated  
2 = Has been translated and back translated - translation appears good and valid.  
3 = Measure has been found to be reliable with this language group.  
4 = Psychometric properties overall appear to be good for this language group.  
5 = Factor structure is similar for this language group as it is for the development group.  
6 = Norms are available for this language group.  
7 = Measure was developed for this language group. |
| 4. German | Yes |
| 5. Japanese | Yes |
| 6. Korean | Yes |
| 7. Norwegian | Yes |
| 8. Russian | Yes |
| 9. Swedish | Yes |

Use with Trauma Populations

<table>
<thead>
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<tbody>
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</tr>
<tr>
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</tr>
<tr>
<td>2. Sexual abuse</td>
</tr>
<tr>
<td>3. Neglect</td>
</tr>
<tr>
<td>4. Domestic Violence</td>
</tr>
<tr>
<td>5. Community violence</td>
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Use with Diverse Populations

<table>
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<th>Degree of Usage: (check all that apply)</th>
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| 1. Developmental disability | 1 = Has been translated  
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4 = Psychometric properties overall appear to be good for this language group.  
5 = Factor structure is similar for this language group as it is for the development group.  
6 = Norms are available for this language group.  
7 = Measure was developed for this language group. |
| 2. Disabilities | Yes |
| 3. Lower socio-economic status | Yes |
| 4. Rural populations | Yes |
| 5. Chronically ill children | Yes |
| 6. Children with Enuresis | Yes |
| 7. Hearing impaired: 1, 2 | Yes |
| 8. Children with Encopresis: 2 | Yes |
ECBI norms were developed for chronically ill children. This diverse sample consisted of 345 chronically ill children with illnesses from eight categories: neurological impairment, hematological and neoplastic illness, infections and immunological disease, pulmonary illness, cardiac illness, gastrointestinal and hepatic illness, renal illness, and endocrine conditions (Colvin, Eyberg & Adams, 1999b).

The ECBI was also normed for children with developmental delays (Cone & Casper-Beliveau, 1997). The sample consisted of 167 children, aged 2 to 16; 47 females and 120 males.

**Pros and Cons/Qualitative Impression**

**Pros:**

1. This is a well-tested, widely used measure that has been shown to detect change in behavior due to treatment.
2. Good psychometrics.
3. Brief and easy to administer and score. It has only 36 items. Other measures are more than double the length.
4. Intensity and problem scores allow for assessment of rater’s perceptions regarding the degree to which the behavior presents a problem.
5. Normative data and clinical cutoffs are available.
6. A Spanish version is available.
7. There is a comparable teacher report version, which allows for assessment of disruptive behaviors across settings by parents and teachers.

**Cons:**

1. Answers are largely subjective.
2. Normative data may not be representative of the populations measured; only a small percentage of the families solicited in the Burns et al. (1991; 2001) studies responded to the study. In addition, norms are not ethnically diverse.
3. The Spanish version has not yet been found reliable across Hispanic cultures.
4. The ECBI as it currently stands may not be as well defined as it would be if it were based on a 3-factor model as opposed to a 2-factor model. Burns and Patterson (2000) have identified 3 factors that the ECBI measures: Oppositional Defiant Behavior Toward Adults, Inattentive Behavior, and Conduct Problem Behavior.
5. The ECBI was developed primarily as a measure of disruptive behavior and does not assess PTSD symptomatology or anxiety-related symptoms commonly seen in children exposed to trauma. Given this, the ECBI should probably be used in conjunction with another measure of symptomatology when assessing children exposed to trauma.
6. Although the measure can be used for children as young as 2, many of the items do not apply to younger children.

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7. Although the measure can be used for children as old as 16, it does not contain items that would be more applicable to disruptive behaviors in the older age range.