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# Eyberg Child Behavior Inventory (ECBI)

36-item parent report of 2–16-year-olds

The Eyberg Child Behavior Inventory (ECBI) is a 36-item measure designed to assess the frequency and severity of disruptive behaviours, as well as the extent to which parents find the behaviours troublesome. The ECBI is specifically focused on behaviours that take place at home in children and young people aged 2–16 years.

Psychometric features	Internal consistency		Test-retest reliability	Validity	Sensitivity to change
	✓ (Scale)	✓ (Subscale)	?	✓	✓
Implementation features	Brevity	Availability	Ease of Scoring	Used in the UK	
	✓	×	×	✓	

\*Please note that our assessment of this measure is based solely on the English version of the CBCL/6–18. The other versions were not assessed and therefore, it should not be assumed that they would receive the same rating.

## What is this document?

This assessment of the Eyberg Child Behavior Inventory (ECBI) has been produced by the Early Intervention Foundation (EIF) as part of guidance on selecting measures relating to parental conflict and its impact on children. To read the full guidance report and download assessments of other measures, visit: <https://www.eif.org.uk/resource/measuring-parental-conflict-and-its-impact-on-child-outcomes>



**We found insufficient evidence to establish that the ECBI has good test-retest reliability over short periods of time.**

## About the measure

 <p><b>Author(s)/ developer(s)</b></p> <p>Eyberg, S.</p>	 <p><b>Publication year for the original version of the measure</b></p> <p>1978</p>	 <p><b>Publication year for the version of the measure assessed</b></p> <p>2001</p>	 <p><b>Type of measure</b></p> <p>Parent self-report.</p>
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<p><b>Versions available</b></p>	<p>Aside from the ECBI, there is an equivalent teacher-report measure, known as the Sutter–Eyberg Student Behaviour Inventory (SESBI; Rayfield et al., 1998), which assess the frequency and severity of disruptive behaviours in school settings.</p>
<p><b>Outcome(s) assessed</b></p>	<p>This measure has been designed to assess the frequency and severity of externalising behaviours in the home settings, as well as the extent to which parents find these behaviours troublesome.</p>
<p><b>Subscales</b></p>	<p>This measure is comprised of two subscales: the intensity scale (where the parent indicates how often each behaviour currently occurs) and the problems scale (where the parent indicates whether or not the identified behaviour is a problem).</p>
<p><b>Purpose/primary use</b></p>	<p>According to Eyberg and Robinson (1983), the ECBI was originally designed to:</p> <ul style="list-style-type: none"> <li>• serve as a brief screening instrument for the differentiation of normal and conduct problems in children and adolescents</li> <li>• provide a sensitive measure of change during the course of treatment;</li> <li>• provide a follow-up instrument.</li> </ul>
<p><b>Mode of administration</b></p>	<p>This measure can be completed in person, online or via telephone.</p>
<p><b>Example item</b></p>	<p>‘Dawdles in getting dressed.’</p>
<p><b>Target population</b></p>	<p>This measure can be used for parents of children aged 2–16 years.</p>

<b>Response format</b>	7-point Likert scale, from 1 ('Never Occurs') to 7 ('Always Occurs') and a Yes/No Problem scale.
<b>Strengths &amp; limitations</b>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>The ECBI is a valid measure with good internal consistency and it is sensitive to change in short interventions.</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>We found insufficient evidence to establish that the ECBI has good test-retest reliability over short periods of time.</li> <li>There is a cost associated with the use of the ECBI, and it needs to be interpreted by someone with clinical and/or research expertise. Further details can be found at: <a href="https://www.parinc.com/Products/Pkey/97">https://www.parinc.com/Products/Pkey/97</a>.</li> <li>According to our review, it does not appear that the ECBI has UK cut-off scores.</li> </ul>
<b>Link</b>	<a href="https://www.parinc.com/Products/Pkey/97">https://www.parinc.com/Products/Pkey/97</a>
<b>Contact details</b>	<a href="https://www.parinc.com/contactus">https://www.parinc.com/contactus</a>
<b>Copyright</b>	Based on our review of the evidence, it appears that the developers did not provide information on copyright. The key reference (included below) should be cited when using the measure.
<b>Key reference(s)</b>	<p>Eyberg, S., &amp; Ross, A.W. (1978). Assessment of child behavior problems: The validation of a new inventory. <i>Journal of Clinical Child Psychology</i>, 7, 113–116.</p> <p><a href="https://doi.org/10.1080/15374417809532835">https://doi.org/10.1080/15374417809532835</a></p>

# Psychometric features in detail

## Internal consistency



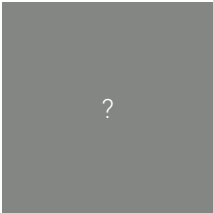
We found a number of papers (Burns & Patterson, 1990; Burns et al., 1991; Colvin et al., 1999; Morawska & Sanders, 2006) reporting good internal consistency for the subscales of ECBI, with Cronbach’s alpha values ranging from 0.87 to 0.95.

Burns & Patterson (1990) reported that, for a nonclinical sample of 810 parents of children and adolescents between the ages of 6– 17 years, alpha coefficients for the Intensity and Problem Scale were 0.93 and 0.91, respectively. The exact same values were reported by Burns et al. (1991) and based on a sample of 1,384 parents with children between the ages of 2–17 years (mean age = 6.9 years).

Similarly, in an unpublished paper with a sample of 798 parents in Florida, the developers (Colvin et al., 1999) reported that Cronbach’s alpha was 0.95 for the Intensity Scale and 0.93 for the Problem scale.

Morawska & Sanders (2006) reported good internal consistency, with alpha values of 0.91 and 0.87 for the Intensity and Problem scale, respectively. This study was conducted with 110 parents of children aged from 18 to 36 months (62.7 boys, mean age = 26.63 months, SD  $\frac{1}{4}$  5.42). The mothers’ mean age was 31.90 (SD  $\frac{1}{4}$  3.94), the fathers’ mean age was 34.72 (SD  $\frac{1}{4}$  4.99).

## Test-retest reliability



From our review we found some evidence of the reliability of the ECBI over a long period of time (>1 month) (Funderburk et al., 2003; Robinson et al., 1980). This evidence, however, is not sufficient for us to conclude that the ECBI is a reliable measure over a short period of time.

In Funderburk et al. (2003), a 10-month test-retest reliability was calculated for a small sample of 32 parents. Stability coefficients were  $r(32) = 0.75$   $p < 0.0001$  for the Intensity scale and  $r(26) = 0.75$ ,  $p < .0001$  for the Problem scale.

Test-retests assessed by individuals items ranged between 0.49 and 0.90 (Robinson et al., 1980).

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## Validity



Most of the studies we reviewed tested the validity of ECBI against the Child Behaviour Checklist (CBCL).

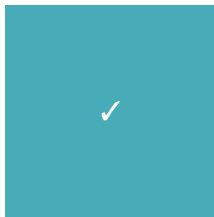
Boggs et al. (1990) reported that the ECBI Problem and Intensity scales were significantly correlated with the CBCL externalising scale, with Pearson correlation coefficients ranging from 0.65 to 0.86.

The authors also reported that the ECBI Problem and Intensity scales were significantly correlated with the Child Behaviour Checklist (CBCL) internalising scales, with Pearson correlation coefficient ranging from 0.34 to 0.81. Such correlations are acceptable considering that the ECBI does not assess internalising behaviours. This study was conducted with a sample of 159 children aged 4–16 years referred for evaluation at a psychology clinic. Rich & Eyberg (2001) examined the extent to which the ECBI was able to discriminate between children meeting the diagnostic criteria for Oppositional Defiant Disorder or Conduct Disorder, and children not meeting the diagnostic criteria. The authors reported that the ECBI Intensity Scale classified correctly 96% of the diagnosed children and 87% of the non-diagnosed children. This study was conducted in the US with 196 mothers of preschool-age children. Diagnosed and non-diagnosed children were matched on socioeconomic status, age and sex, and no statistically significant differences were found between the two groups.

Burns et al. (1999) tested the validity of ECBI using a sample of 1,526 children divided into five separate groups: the nonclinical group (1,384 children brought to the clinic for a check-up or for a temporary or chronic illness), the learning disability group (50 children currently receiving treatment for a learning disability), the behavioural problem group (47 children currently receiving treatment for behavioural problems), and the learning disability plus behavioural problem group (23 children currently receiving treatment for both problems). The final group, the behavioural problem referral group, consisted of 22 children who were not receiving treatments but were referred because of their behavioural problems. The authors reported that the ECBI scores were significantly lower for the nonclinical group than for the other four groups. They also reported that the behaviour problem group, the behavioural problem plus learning disability group, and the behavioural problem referral group had Frequency scores that were significantly higher than the learning disability group's score. Similar results were found for the Problem score, with the exception of the behavioural problem referral group, whose score did not differ significantly from the learning disability group's score.

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### Sensitivity to change



There is evidence that the ECBI can detect changes after participation in short parenting interventions (Cann et al., 2003, Hutchings et al., 2011; Zubrick et al. 2005; Sofronoff et al., 2011).

Hutchings et al. (2011) conducted a pre/post study of the effect of the Incredible Years School Age Basic programme combined with the Advanced Parenting programme (16–17 weeks) using ECBI as one of its outcome measures. In this study, the measure proved itself to be sensitive to change (Intensity scale:  $t(113) = 8.41, p < 0.001$ ; Problem scale:  $t(113) = 11.29, p < 0.001$ ). The study was conducted with a sample of 280 parents of children at risk of adolescent antisocial behaviour (mean age 10.3 years) and found a significant difference between the pre- and post-intervention scores for both ECBI scales.

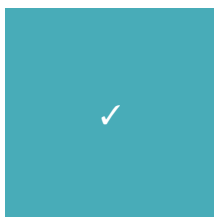
Sofronoff et al. (2011) used the ECBI and found a statistically significant difference between pre-test and post-test ( $F = 12.190, p < 0.01$ ). This study was an RCT conducted in Australia to assess the Selected (Seminars) Stepping Stones Triple P programme (two, two-hour seminars). Using a sample of 53 parent–child dyads, where the child had a disability, the programme aimed to help parents better adapt to their child’s needs while helping children better manage their behaviour. The ECBI in this study found a statistically significant improvement in both child behaviour and in the Problem scale.

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## Implementation features in detail

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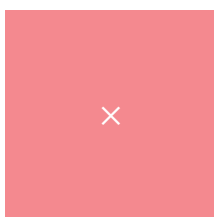
### Brevity



This measure has 36 items and according to the developers, it can be completed in five minutes.

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### Availability

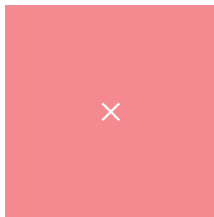


The online-administered version of the measure is available for a fee of \$2.00 per single use (minimum order of 5). The ECBI test sheets, which come in a pack of 25 are available for a fee of \$54.00. The ECBI does not require a clinical license to be used, but purchasers should own the ECBI Professional Manual or purchase it before use.

Further details can be found at <https://www.parinc.com/Products/Pkey/97>.

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**Ease of scoring**

The measure has simple scoring instructions involving basic calculations. It does not need to be scored by someone with specific training or qualifications, but the administration and scoring procedures presented in the ECBI manual should be carefully studied by those administering it.

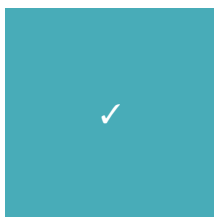
Individual Intensity Score items are summed up, with resultant scores ranging from 36 to 252. For each item, the parents' response regarding whether the behaviour is a problem for them ('Yes' = 1 , 'No' = 0) is also summed to create the Problem Score, ranging from 0 to 36. According to the manual, Intensity scores over 127 are in the clinical range.

The interpretation of the ECBI scores, however, does require graduate training in psychology, counselling or a closely related field, as well as relevant training or coursework in the interpretation of psychological tests at an accredited college or university.

The ECBI Scoring Reports can be purchased for a fee of \$1.00 (price per use; minimum order of 5) at <https://www.parinc.com/Products/Pkey/97>.

It is not clear if there is any information about the cut-offs of the ECBI for the UK population, there are, however, cut-offs for the US population.

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**Used in the UK**

The ECBI is a commonly used measure which has been cited in several UK studies, including in the assessment of Incredible Years School Age Basic (Scott et al., 2010, 2014; Beckett et al., 2012; Little et al., 2012), Incredible Years School Age Basic combined with the Advanced Parenting programme (Hutchings et al., 2011), Triple P Standard Level 4 (Little et al., 2012), Empowering Parents Empowering Communities (Day et al., 2012), and Enhancing Parenting Skills (Williams et al., 2019).

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**Language(s)**

The ECBI is available in English and has been translated by the developers into more than 20 languages. Translated versions can be purchased at <https://www.parinc.com/Resources/Permissions-and-licensing#99073-eyberg-child-behavior-inventory-ecbi>.

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