

Revised Child Anxiety and Depression Scale (RCADS)

47-item self-report for 8–18-year-olds

The Revised Child Anxiety and Depression Scale (RCADS) is a 47-item measure designed to assess symptoms corresponding to anxiety disorders and depression in children and young people aged 8–18 years. The original measure includes six subscales aimed at assessing separation anxiety disorder, social phobia, generalised anxiety disorder, panic disorder, obsessive compulsive disorder and major depressive disorder.

	Internal consistency		Test-retest reliability	Validity	Sensitivity to change
Psychometric features	✓ (Scale)	✓ (Subscale)	?	✓	✓

	Brevity	Availability	Ease of Scoring	Used in the UK
Implementation features	✗	✓	✓	✓

*Please note that our assessment of this measure is based solely on the English self-report version of the RCADS, for children and young people aged 8–18 years. The other versions of this measure 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 Revised Child Anxiety and Depression Scale (RCADS) 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>



- Some of the RCADS items contain sensitive content (for example item 37: 'I think about death'). If an individual raises issues around self-harm, suicide or related issues, they should either be referred to the relevant mental health services or the appropriate safeguarding procedures should be put in place.
- We found insufficient evidence to establish that the RCADS has good test-retest reliability over short periods of time.
- From our review of the evidence, it appears that the six subscales of the RCADS have a good validity, while that of the total score is questionable. We would therefore encourage you to use the individual subscale scores rather than the total score.

About the measure

 Author(s)/ developer(s) Chorpita, B.F., Yim, L., Moffitt, C., Umemoto L.A., & Francis, S.E.	 Publication year for the original version of the measure 2000	 Type of measure Child self-report.
Versions available	There are three additional versions of this measure available, including a parent version (RCADS-P), a shortened 25-item child self-report version and a shortened 25-item parent version.	
Outcome(s) assessed	This measure has been designed to assess anxiety disorders and depression in children and young people.	
Subscales	There are six subscales: separation anxiety disorder (SAD), social phobia (SP), generalised anxiety disorder (GAD), panic disorder (PD), obsessive compulsive disorder (OCD) and major depressive disorder (MDD). The RCADS also yields a Total Anxiety Scale (sum of the five anxiety subscales) and a Total Internalising Scale (sum of all six subscales).	
Purpose/primary use	The RCADS measures the reported frequency of various symptoms of anxiety and low mood. It was developed as a revision of the Spence Children’s Anxiety Scale (SCAS) in order to correspond to the dimensions of some anxiety disorders reported in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), and also include major depression. In particular, the RCADS was intended to refine the measurement of generalised anxiety disorder (GAD) to reflect core aspects of ‘worry’ (Wigham & Conachie, 2014).	
Mode of administration	This measure can be completed in person or online.	
Example item	‘I worry about things.’	
Target population	This measure was originally developed for children aged 8–18 years.	

Response format	4-point ordinal scale (0 = 'Never', 1 = 'Sometimes', 2 = 'Often', 3= 'Always')
Strengths & limitations	<p>Strengths:</p> <ul style="list-style-type: none"> • The RCADS is a valid measure with good internal consistency. • It is free to access and easy to score (the measure is available at: https://www.childfirst.ucla.edu/resources/, with scoring instructions here: https://www.childfirst.ucla.edu/resources/). <p>Limitations:</p> <ul style="list-style-type: none"> • We found insufficient evidence to establish that the RCADS has good test-retest reliability over short periods of time. • The RCADS has 47 items and might require more than 15 minutes to be completed. • According to our review, it does not appear that the RCADS has UK cut-off scores.
Link	https://www.childfirst.ucla.edu/resources/
Contact details	Bruce Chorpita: chorpita@ucla.edu
Copyright	The English and translated versions of the RCADS are copyrighted by Chorpita and Spence. Any use of these instruments implies that the user has read and agreed to the terms of use. Neither the developers nor UCLA are responsible for any third-party use of these instruments by individuals who have not read the RCADS guide or its terms of use. While the RCADS can be used for research purposes, the developers ask, as a professional courtesy, to be informed of this before the study is conducted. Finally, the use of RCADS should always include acknowledgement of the development of the RCADS using appropriate scholarly citations, including the item development contributed by Spence (1997) and extensions by Chorpita et al. (2000).
Key reference(s)	<p>Chorpita, B.F., Yim, L.M., Moffitt, C. ., Umemoto L.A., & Francis, S.E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A Revised Child Anxiety and Depression Scale. <i>Behaviour Research and Therapy</i>, 38, 835–855.</p> <p>Spence, S.H. (1997). Structure of anxiety symptoms among children: A confirmatory factor-analytic study. <i>Journal of Abnormal Psychology</i>, 106, 280–297.</p>

Psychometric features in detail

Internal consistency

✓
(Scale)

de Ross et al. (2002) reported an alpha coefficient of 0.96 for the whole scale. This study was conducted in Australia with a sample of 405 children aged between 8–18 years (mean age = 13.24, SD = 2.52).

✓
(Subscales)

We found a number of papers (Brown et al., 2013; Chorpita et al. 2000; Chorpita et al., 2005; Donnelly et al., 2019) reporting good internal consistency for the subscales of RCADS, with Cronbach's alpha values ranging from 0.64 to 0.96.

De Ross et al. (2002) reported alpha coefficient values between 0.79 and 0.88 for the RCADS subscales.

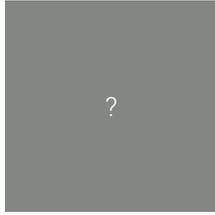
Donnelly et al. (2019) reported that the internal consistency for the RCADS subscales ranged from 0.69 to 0.96. This study was conducted in Ireland with a sample of 350 second-level students (186 female) aged between 12–18 years (mean age = 14.97, SD = 1.44). The majority of students identified themselves as White (91.4%).

The developers (Chorpita et al., 2000) examined the subscales' internal consistency and reported that all alpha coefficient values ranged between 0.71 and 0.85. This study was conducted in Hawaii with a sample of 246 children (137 females). The mean age was 12.20 years and the major ethnic groups included were Filipino (29.9%), Japanese American (12.5%), Caucasian (9.4%), Hawaiian (8.9%) and Multi-ethnic (20.1%).

In another study by the developers, Chorpita et al. (2005) examined the internal consistency of the subscales in a clinical sample and reported that all α coefficient values ranged between 0.78 and 0.88. This study was conducted in Hawaii with a sample of 513 children (167 females) aged between 7–17 years referred for assessment to the University of Hawaii Center for Cognitive Behavior Therapy. The mean age was 12.9 years (SD = 2.7), and the major ethnicities reported were Caucasian (16.0%), Hawaiian (10.3%), Japanese American (9.6%), Filipino (5.3%), and Multi-ethnic (43.3%).

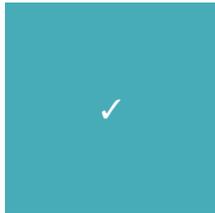
Finally, Brown et al. (2013) reported that the internal consistency of the RCADS subscales ranged from 0.64 to 0.82. This study was conducted in the US with a sample of 229 primarily low-income, urban African American children and adolescents (111 females) aged between 7–17 years (mean age = 12.13 years).

Test-retest reliability



In Chorpita et al. (2000), a subset of participants (125 children) was included in a one-week test-retest analysis. The authors reported test-retest coefficients between of 0.75 and 0.80 for all subscales except OCD (test-retest coefficient = 0.65). For boys only, the MDD subscale had a test-retest coefficient of 0.64.

Validity



From our review of the evidence, it appears that the six subscales of the RCADS have a good validity, while that of the total score is questionable. We would therefore encourage you to use the individual subscale scores rather than the total score.

de Ross et al. (2002) conducted a confirmatory factor analysis and reported CFI = 0.83(6 factor) and RMSEA = 0.063 for six factors, and CFI = 0.72 and RMSEA = 0.081 for one factor. This study was conducted in Australia with a sample of 405 children aged between 8–18 years (mean age = 13.24, SD = 2.52).

Donnelly et al. (2019) conducted a confirmatory factor analysis for six factors and reported CFI = 0.96, RMSEA = 0.034. This study was conducted in Ireland with a sample of 350 second-level students (186 female) aged between 12–18 years (mean age = 14.97, SD = 1.44). The majority of students identified themselves as White (91.4%).

de Ross et al. (2002) reported that the RCADS subscales were significantly associated with the Revised Children's Manifest Anxiety Scale (RCMAS) subscales and that the Pearson coefficients ranged between 0.62 and 0.75. The authors also reported that the RCADS MMD (Major depressive disorder) subscale score was significantly associated with the Children's Depression Inventory (CDI) ($r = 0.80$).

Donnelly et al. (2019) reported that both the RCADS MDD subscale and RCADS total internalising factor were most strongly correlated with the DASS-21 depression subscale ($r = 0.79$ for MDD and $r = 0.73$ for the total internalising factor) compared to the DASS-21 anxiety subscale. The RCADS PD (Panic Disorders) subscale and the RCADS total anxiety subscale were reported to be most strongly correlated with the DASS-Anxiety subscale ($r = 0.72$ and $r = 0.71$ respectively).

Chorpita et al. (2000) reported that the RCADS MMD (Major depressive disorder) subscale score was associated with the Children's Depression Inventory (CDI) ($r = 0.70$). The other subscales showed low correlations with the CDI (r ranged between 0.18 and 0.45). The authors also evaluated the correlations of the RCADS with the Revised Children's Manifest Anxiety Scale (RCMAS). It was predicted that the RCADS social phobia (SP) subscale would correlate somewhat higher with the RCMAS-Worry and RCMAS-P subscales, but correlations were low in particular with RCMAS-Physiological Anxiety ($r = 0.43$). It was expected that the obsessive-compulsive disorder (OCD) subscale should correlate relatively higher with the RCMAS-Worry, but correlation was low ($r = 0.44$). Validity coefficients were generally elevated among girls relative to the boys.

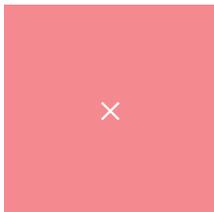
Sensitivity to change

There is evidence that the RCADS can detect changes after participation in short and long mental health interventions in children.

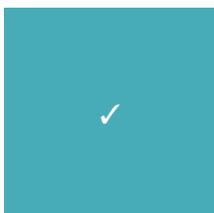
Stallard et al. (2014) reported that the RCARDS was sensitive to change (RCADS: interaction co-efficient = -3.91 , $p < 0.0004$). This study was a 12-month impact evaluation of the FRIENDS for Life (health-led) programme, aimed at improving resilience, mental health and wellbeing in children. This study was conducted with a sample of 1,442 children across 45 schools between the ages of 9 and 10 where just under a third experienced bullying \geq two to three times per month.

Humphrey (2019) reported that the RCADS detected change over time (RCADS: $t(53) = 3.89$, $p < 0.01$). This study was a one group pre-test/post-test design carried out in the UK aimed at evaluating the Growing2gether programme (lasting 17–18 weeks) designed to develop confidence and self-belief in disengaged youth. This study was conducted with a sample of 72 participants with a range of risk factors such as in care, eligibility for free school meals, demonstratable behavioural problems, withdrawn social behaviour or victims of bullying, or are receiving counselling. Participants were between the ages of 12–16 years old with a mean age of 14.0 and 77% were female.

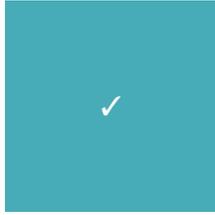
Implementation features in detail

Brevity

This measure has 47 items.

Availability

The measure is available for use through Dr Chorpita's UCLA resource page at no cost (www.childfirst.ucla.edu/resources.html). It does not require a clinical licence to be used.

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. The measure can be scored either manually or by using an automated scoring procedure. Scoring instructions can be found at <https://www.childfirst.ucla.edu/resources/>. Each item is assigned a numerical value from 0 to 3, and the values for the individual items are added together.

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

Used in the UK

The RCADS is a commonly used measure which has been used in several UK studies, including in the assessment of the DISCOVER Programme, the FRIENDS programme, the UK Resilience Programme, the Personal, Social, Health and Economic (PSHE) Education is the school curriculum and Growing2gether (Challen, Machin, & Gillham 2014; Humphrey K., 2019; Michelson et al., 2016; Stallard et al., 2014).

Language(s)

The RCADS is available in English and has also been officially translated into 16 other languages, including French, German, Spanish, Chinese, Dutch, Danish and Greek. The official translations can be found at: <https://www.childfirst.ucla.edu/resources/>.

References

- Brown R.C., Yaroslavsky I., Quinoy, A.M., Friedman A.D., Brookman R.R., & Southam-Gerow M.A. (2012) Factor structure of measures of anxiety and depression symptoms in African American youth. *Child Psychiatry Hum Dev*, 44(4), 525–536.
- Challen, A.R., Machin, S.J., & Gillham, J.E. (2014). The UK Resilience Programme: A school-based universal nonrandomized pragmatic controlled trial. *Journal of Consulting and Clinical Psychology*, 82(1), 75–89.
- Childs, J., Deighton, J., & Wolpert, M. (2013). *Defining and measuring mental health and wellbeing: A response mode report requested by the Department of Health for the Policy Research Unit in the Health of Children, Young People and Families*. Retrieved from http://www.ucl.ac.uk/ebpu/docs/publication_files/Defining_and_measuring_mental_health_and_wellbeing_in_children-CPRU_RM_report.pdf
- Chorpita, B.F., Yim, L.M., Moffitt, C.E., Umemoto L.A., & Francis, S.E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A Revised Child Anxiety and Depression Scale. *Behaviour Research and Therapy*, 38, 835–855.
- Chorpita, B.F., Moffitt, C.E., & Gray, J.A. (2005). Psychometric properties of the Revised Child Anxiety and Depression Scale in a clinical sample. *Behaviour Research and Therapy*, 43, 309–322.
- de Ross, R.L., Gullone, E., & Chorpita, B.F. (2002). The Revised Child Anxiety and Depression Scale: A psychometric investigation with Australian youth. *Behaviour Change*, 19, 90–101.
- Donnelly, A., Fitzgerald, A., Shevlin, M., & Dooley, B. (2019). Investigating the psychometric properties of the revised child anxiety and depression scale (RCADS) in a non-clinical sample of Irish adolescents. *Journal of Mental Health*, 28(4), 345–356.
- Humphrey, K. (2019). *Growing2gether Impact Report (February 2019–July 2019)*. Growing2gether Scottish Youth Mentoring Children. Retrieved from <https://www.ecologia.org.uk/wp-content/uploads/2019/08/AFC-2-Cohort-1-Evaluation-Report-July-2019-7.pdf>.
- Law, D., & Wolpert, M. (2014). *Guide to using outcomes and feedback tools with children, young people and families*. UK: Press CAMHS.
- Michelson, D., Sclare, I., Stahl, D., Morant, N., Bonin, E.M., & Brown, J.S. (2016). Early intervention for depression and anxiety in 16–18-year-olds: Protocol for a feasibility cluster randomised controlled trial of open-access psychological workshops in schools (DISCOVER). *Contemporary Clinical Trials*, 48, 52–58.
- Weiss, D.C. & Chorpita, B.F. (2011). *Revised Children's Anxiety and Depression Scale – User's Guide*. Child F.I.R.S.T.
- Wigham, S., & McConachie, H. (2014). Systematic review of the properties of tools used to measure outcomes in anxiety intervention studies for children with autism spectrum disorders. *PloS one*, 9(1), e85268.
- Spence, S.H. (1997). Structure of anxiety symptoms among children: A confirmatory factor-analytic study. *Journal of Abnormal Psychology*, 106, 280–297.
- Stallard, P., Taylor, G., Anderson, R., Daniels, H., Simpson, N., Phillips, R., & Skryabina, E. (2014). The prevention of anxiety in children through school-based interventions: Study protocol for a 24-month follow-up of the PACES project. *Trials*, 15(1), 77.

