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Validation of the Revised Children's Anxiety and Depression Scales (RCADS) and RCADS short forms adapted for adults

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Abstract

Background: The life span nature of anxiety and depression has led to an interest in whether assessments designed for use with children and young people are also valid for adults. The Revised Children's Anxiety and Depression Scales (RCADS) is a commonly used measure and we aimed to explore its structural validity in adults.

Methods: We examined the factorial validity of the original and two short form versions of the Revised Children's Anxiety and Depression Scales (RCADS) adapted for adults, using confirmatory factor analysis with a convenience sample (n = 371) aged 18-67.

Results: All versions of the RCADS were found to provide reliable measures of general anxiety and depression in adults and of most subdimensions of anxiety corresponding to

the original version of the RCADS. However, anxiety subdimension reliability was primarily driven by the strong general anxiety dimension, due to the high comorbidity between anxiety subtypes.

Limitations: We did not include data for children as well as adults in our analyses and small changes were made to the wording of five RCADS items to make them appropriate for adults.

Conclusions: Results suggest that all versions could be helpful for longitudinal and comparative research and evaluation of clinical outcomes, in situations where the focus is on general anxiety and depression, rather than clinical subtypes.

Key words: Revised Children's Anxiety and Depression Scales (RCADS); factor structure; adults

Introduction

Both anxiety and depression affect a large proportion of the population. Prevalence of anxiety disorders is estimated to be approximately 6.5% in young people (Polanczyk et al., 2015) and between 3.8 and 25% in adults (Remes et al., 2016). There is also high comorbidity between the two conditions. Comorbidity rates for anxiety and depression in adults differ according to the specific anxiety disorder and period being examined, but generalised anxiety disorder and depression have been found to have both lifetime and 12-month comorbidity rates of approximately 60% (see Van Ameringen et al., 2013 for an overview).

It is estimated that between 15-70% of children and young people with depression also have anxiety, while between 10-15% of those with anxiety disorder also have depression (see Piqueras et al., 2017). The figures for young people may be underestimated, as research suggests that recognition of internalising conditions in children, of which anxiety and depression are two key subtypes, are likely to be under-identified by others (see Moore et al., 2017). As a result, self-report is seen as the preferred way to identify internalising conditions in adolescents and is considered the second best method, after parental report, for younger children (Smith, 2007).

As well as commonly co-occurring, anxiety disorders at a younger age can also predict depression in adolescent and young adulthood (see Zahn-Waxler et al., 2000), highlighting the importance of a developmental approach to assessing and treating the conditions. There is also an increasing emphasis on the life-span nature of anxiety, for example, separation anxiety, which was previously considered as a childhood condition, is now seen as applicable to both adults and children (Zupanick, 2014). A number of questions in relation to the developmental trajectory of anxiety and depression that require a longitudinal and/or comparative approach in order to be addressed have been highlighted (Angulo et al., 2017; Zahn-Waxler et al., 2000). These include whether the conditions

improve or worsen over time, the factors, such as interventions, that influence such changes and how the conditions compare across children, adolescents and adults. In order to answer such questions, there is a need for assessments that can measure the range of symptoms that correspond to each condition and which are able to distinguish between the two in both children and adults (Szabo´, 2010).

Few assessments exist that measure both anxiety and depression which have been validated for use with children, adolescents and adults. Angulo et al. (2017) examined the psychometric properties of an adaptation of the Screen for Child Anxiety Related Emotional Disorders (SCARED) for adults. The adapted measure was found to have good psychometric properties and a factor structure that was consistent with that of the child version. The adaptation, however, included the omission of an item from the child version, rewording of others and the addition of four items for general anxiety disorder. In addition, the questionnaire only measured anxiety. The Depression Anxiety Stress Scales (DASS: Lovibond, & Lovibond, 1995) was designed for use with adults and has the advantage of measuring anxiety, depression and stress. The original validation sample, however, only included participants aged over17 years and subsequent validation work into the factor structure of the DASS has been with older adolescents, rather than younger children (e.g. Moore et al., 2017; Szabo´, 2010).

There thus remains a need for a self-report measure of anxiety and depression that, with minimal adaptation, is valid for use with children, adolescents and adults. One questionnaire which has potential as a measure that can be used to address important developmental questions about internalising disorders is the Revised Children's Anxiety and Depression Scales (RCADS: Chorpita et al., 2000). The RCADS is a self-report measure that can be completed by children aged 8-18 years. The 47-item original version provides a total anxiety score and subscale scores for major depressive disorder (DEP); obsessive-compulsive

disorder (OCD), generalized anxiety disorder (GAD), separation anxiety disorder (SAD), social phobia (SP), and panic disorder (PD).   As such it addresses the high comorbidity between anxiety and depression by measuring both in the one questionnaire (Spence, 2017). The anxiety subscales also allow assessment of subtypes of the condition, consistent with the restructuring of Anxiety Disorders in the Diagnostic and Statistical Manual (American Psychiatric Association [APA], 2013), to reflect that anxiety is not a unitary disorder (Stein et al., 2014).

There are also 25-item (Ebesutani et al., 2012) and 30-item (Sandin et al., 2010) short forms. The various versions of the RCADS have been used in clinical and non-clinical settings, translated for use in many different countries, and found to have good psychometric properties (Piqueras et al., 2017). The 25-item short form has the advantage of brevity, while the 30-item version, while still shorter than the original has the advantages of retaining the original structure of the RCADS and having higher reliability coefficients than the 25-item version (Piqueras et al., 2017).

The aim of the study was to evaluate if the factorial structure of the original and short forms of the RCADS held when it was adapted for use with adults. This represents a first step in validating an existing measure that would potentially allow clinicians and researchers to track clinical progress over time, facilitate longitudinal research utilising the same measure in child and adulthood and inform comparative studies between children, young people and adults. It is hypothesised that the factor structures of the original and short forms of the RCADS, as established for the child versions will hold when used with adults.

Methods

Recruitment and participants

Participants, who were 18 years or above, were recruited to an online questionnaire via social media, online forums and UK based universities. Those who were recruited using a University Psychology Research Participation Scheme were given one credit towards their degree course. Data for the original and short form RCADS were obtained from 270 participants (male = 97 (35.9%), age 18 - 67 years, m = 27.9, SD = 9.9), of whom 178 (65.9%) were full or part-time students. An additional separate sample of 371 participants completed the 25-item short form RCADS items. These participants (male = 138 (37.2%), were aged 18 - 67 years, m = 25.9, SD = 9.3), of whom 279 (75.2%) were studying full or part-time. For the total sample, the mean ages of the male and female participants respectively were 25.1 years (SD = 8.6) and 26.4 years (SD = 9.7). There was no significant difference in the age of males and females (t (356) = -1.27, p = .206). All participants provided informed consent. Ethical approval for the research was granted by the ethics committees of the authors' educational establishments.

Measures: The original 47-item (Chorpita et al., 2000), 30-item (Sandin et al., 2010) and 25-item short form (Ebesutani et al., 2012) versions of the RCADS were used. As noted in the introduction, the original version provides five subscale scores and a total anxiety score. The 30-item short form retains this structure, while the 25-item version only provides total anxiety and depression scores. Overall, the original measure has been found to have strong internal reliability, with a systematic review and meta-analysis of 146 studies across a range of settings, countries and languages finding a mean alpha level of .93 for the total and anxiety scales and a range from .74 to .85 for the subscales (Piqueras et al., 2017). The 25-item short form was found to have lower reliability coefficients than other forms of the RACDS, although the differences were small, suggesting that shortening the measure was at little cost to its reliability (Piqueras et al., 2017). While the focus of this short form on general anxiety

and depression factors means that it potentially loses valuable information about anxiety subtypes, it was included in the study because it has the advantage of being brief (Piqueras et al., 2017), and may be useful in situations where it is necessary to screen large numbers of people for indications of anxiety and depression (Ebesutani et al., 2012). The 30-item short form has the strengths of the original version, in terms of good psychometric properties and providing subscale scores, but it is quicker to administer (Piqueras et al., 2017).

Items are scored on a 4-point scale from *never* to *always*. Five items were adapted to make them applicable to adults. These were (amended wording in brackets) 'I worry about being away from my parents (loved ones)', 'I worry that I will do badly at my school work (university/work).', 'I have trouble going to school (work/university) in the mornings because I feel nervous or afraid,' 'I feel afraid if I have to talk in front of my class (peers/cohort)' and 'I have to think of special (specific) thoughts, like numbers or words, to stop bad things from happening.'

Statistical Procedure

We evaluated the factorial validity of the RCADS and the reliability of its subscales using a confirmatory factor analysis approach. Models were based on the factorial structures developed in previous research by Ebesutani and colleagues (2012) and Sandin and colleagues (2010) for the 25 and 30 item short forms respectively. For the original RCADS anxiety items this was a bifactor model in which all items loaded on two factors with group factors corresponding to SAD, GAD, PD, SP, OCD. The general form of a bifactor models is that both general and group factors load on each item, with the general factor loading on all items and each group factor loading on a subset of the items corresponding to the construct it represents (e.g., see Murray et al., 2013; Reise, 2012).

Thus, in the full RCADS, a general anxiety factor loads on all items, while SAD, GAD, PD, SP and OCD group factors load on the items that comprise their respective subscales. The general and group factors are at the same level, in that both load directly on the items (in contrast to a higher-order model where the general factor loads on first-order factors which, in turn, load on the items). Typically, and in the current analyses, group and general factors are all fixed to be orthogonal to one another. For the depression items and the 25-item RCADS these were single factor models. For the 30-item RCADS, we also fit a bifactor model. This was not included in the set of models tested by Sandin et al. (2010), who preferred a 6-factor oblique model. However, for a measure designed to capture both general and specific subtypes of anxiety, a bifactor model is more appropriate because it can partition variance between general and specific anxiety constructs in a way that an oblique factor model cannot. Thus, for this version a bifactor model was fit to the 25 anxiety items and a separate dimension was fit to the depression items. The depression and anxiety dimensions were allowed to correlate. Factorial validity was assessed using model fit (TLI>.95, CFI>.95, RMSEA<.08, SRMR<.05) and evaluating whether loadings were all salient (standardised loadings >.30) and statistically significant (p<.05). Models were estimated in *Mplus 7.13* using robust maximum likelihood estimation (MLR: Muthén & Muthén, 1998-2014) with scaling achieved by fixing latent variances to 1. Omega total and omega hierarchical values were computed to test the reliability of the items as measures of the general and group factors respectively controlling for the influence of group factors and the general factor (Zinbarg et al., 2005). Omega is a more appropriate measure of internal consistency than alpha because it does not assume tau equivalence, an assumption that rarely holds in practice.

Results

Bifactor models

Full RCADS

On fitting the bifactor model to the full RCADS anxiety items, it was necessary to constrain the residual variance of item 17 to a small positive value to deal with a Heywood case. The bifactor model for the full RCADS showed acceptable fit (CFI = .91, TLI = 0.90, RMSEA = .05, SRMR = .04); however, many group factor loadings were non-significant or non-salient. Standardised factor loadings are provided in Table 1. The highest loading items on the general factor were items 41, 23 and 27, which all had loadings of above .85. Omega hierarchical for the general factor was .86. For the group factors, social anxiety disorders = .12, generalised anxiety disorders = .06, panic disorders = .15, social phobia = .16, and obsessive compulsive disorders = .12. Omega total was .98 for the general factor, .93 for generalised anxiety disorder, .86 for social anxiety disorder, .93 for panic disorder, .92 for social phobia, and .88 for obsessive compulsive disorders.

For the depression single factor model, we included a residual covariance between item 19 and 21. The model fit well (CFI = 0.97, TLI = 0.96, RMSEA = 0.07, SRMR = 0.03) and omega was 0.92.

<Insert table 1 about here>

25-item short form RCADS

A single factor model was fit to the 25-item RCADS data; however, because it included items derived from multiple subscales we included some residual covariances between items from the same subscale. Specifically, based on modification indices and expected parameter changes from a unidimensional model, we included residual covariances between items 5 and 17 (SAD); items 32 and 43 (social); items 31 and 42 (OCD); and items 42 and 44 (OCD). These were required to model the excess covariance between the items not

accounted for by the general factor. Failing to model such covariance can result in inflated reliability values. In the bifactor models, this excess covariance can be accounted for by the group factors; however, to preserve the basic proposed structure of the RCADS-25, we preferred to here utilise residual covariances. This model fit well by conventional criteria (CFI = 0.95, TLI = 0.94, RMSEA = 0.06, SRMR = 0.04). Standardised factor loadings are provided in Table 2. Omega was 0.93.

30-item short form RCADS

On fitting the model for the 30-item RCADS, it was necessary to constrain the residual variance of item 27 to a small positive value (0.01) to address a Heywood case. Following this, the model showed acceptable to good fit by conventional criteria (CFI = .94, TLI = 0.93, RMSEA = .04, SRMR = .04). Standardised factor loadings are provided in Table 2. Omega hierarchical for the general factor was .84, for social anxiety disorder it was .19, for generalised anxiety disorder it was .04, for panic disorder it was .18, for social phobia it was .25, and for obsessive compulsive disorders it was .05. Omega total for the general factor was .93, for social anxiety disorder was .82, for generalised anxiety disorder was .57, for panic disorder was .91, for social phobia was .91, and for obsessive compulsive disorders was .87. Omega for depression was .90.

<Insert table 2 about here>

Discussion

The aim of the study was to explore whether the factor structures of the original and two short form versions of the RCADS found in children/young people also held in adults. We found all three versions of the RCADS appeared to be reliable measures in adults, however reliable variance in the adult responses to the items in the subscales of the original and 30-item short form versions largely reflect general anxiety rather than the specific anxiety

disorder symptoms that they were designed to measure in children and young people (Ebesutani et al., 2012).

As Stein and colleagues (2014) note, the restructuring of the former category of Anxiety Disorders in DSM-5 (APA, 2013) reflects the commonality of symptoms of anxiety, associated cognitions, chronic nature and associated influence on wellbeing and functioning. As the large omega hierarchical values for the general factor and low values for the group factors suggest, responses to the RCADS in adults appears to reflect this commonality, rather than symptoms associated with particular subtypes of anxiety. As such, after partialling out the general anxiety factor using a bifactor model, the group factors representing the subtypes tended to have low and sometimes negative loadings. This observation is consistent with the results reported by Ebesutani et al. (2012) in clinical and school-based child samples. They found that in a bifactor analysis of the full RCADS, many group factors had at least some non-salient loadings. Most other studies have not utilised bifactor models that separate out general and group factor variance (e.g. see Piqueras et al., 2017), therefore, a more general comparison against psychometric evaluations in child samples is difficult at this stage.

The 25-item RCADS short form is designed as a quick assessment providing a broad indication of anxiety and depression in children (Piqueras et al., 2017). Our results suggest that it can serve a similar function with adults. This may be of benefit for screening purposes or in research contexts where full diagnostic assessment is not required and/or possible (Ebesutani et al., 2012; Piqueras et al., 2017). It is possible to compare the omega total for the general anxiety factor in the 30-item RCADS to the omega value for anxiety in the RCADS-25 to evaluate which set of items is more reliable with respect to anxiety. The reliability values were identical, suggesting that either could provide a measure of anxiety when separating general and specific subtype anxiety variance is not considered important (e.g., in prediction contexts). When it is desirable to separate general and subtype variance the 30-

item may be preferable to the full version where there are time and resource constraints, as it showed similar reliabilities to the full version (Piqueras et al., 2017)

Having established the factorial validity and internal consistency of versions of the RCADS in adults, the next step would be to evaluate the extent to which they can be used to generate comparable scores across children, adolescents and adults. This should ideally involve a range of qualitative and quantitative techniques, for example, including cognitive interviewing (e.g. Willis, 2004) to evaluate whether interpretations of items and response processes differ across age groups. Such interviews could explore whether adults describe their experiences and symptoms of anxiety and depression in different ways to young people. Future research could also include the evaluation of measurement invariance of the instrument over time in longitudinal data (e.g. Murray et al., 2017), although invariance across age groups in cross-sectional data would also contribute valuable evidence on the comparability of RCADS scores across stages of development.

Our study was the first to explore the structural validity of the RCADS in adults, based on a relatively large and heterogeneous sample, however it did have limitations. Firstly, we did not include data for children. A recent meta-analysis of 146 studies with children has found the measure to have strong internal reliability and, based on an age range of 6-18, age was not found to be a moderating factor in respect of the reliability of the RCADS (Piqueras et al., 2017). Related to this, while the focus of the study was on the factor structure of the RCADS, in common with other studies that aim to explore the adaptation from one age group to another (e.g. Moore et al., 2017; Szabo´, 2010), future research, as outlined above, is needed to explore the further aspects of validity and reliability of the RCADS when used with adults.

An additional limitation relates to the representativeness of our sample, with those studying full or part time and females being overrepresented. In respect of the former, research does, however, indicate that university students experience mental health problems at comparable levels to those in the general population (Connell et al., 2007; Macaskill, 2013). There are also known sex differences in internalising disorders, with females being more likely to experience anxiety and depression than males (see Altemus et al., 2014). Given these differences, one future area of interest will be measurement invariance across gender. In addition, it will be of interest to establish whether the instrument shows invariance across individuals with and without an anxiety disorder diagnosis. This would support its use in comparing clinical and non-clinical populations and in mixed samples. These two aspects of validation of instruments that seek to measure clinical phenotypes are important but often neglected.

In conclusion, our results suggest that the RCADS reliably measures general anxiety and depression in adults; however, the reliability of the specific anxiety disorders it measures is largely driven by the reliability of the general factor. Partialling out the general anxiety factor, the reliability for specific anxiety factors was low. As such, the RCADS could be used to track the clinical progress of individuals from childhood to adulthood, for longitudinal research and for comparative research across age cohorts in respect of general anxiety and depression. If used to measure specific anxiety disorders, it should be borne in mind that the reliability of these scales primarily reflects their general factor saturation.

References

Altemus M, Sarvaiya N, Epperson CN., 2014. Sex differences in anxiety and depression clinical perspectives. Front Neuroendocrinol. 35, 320–330.

American Psychiatric Association. 2013 Diagnostic and Statistical Manual of Mental Disorders 5th ed. American Psychiatric Publishing. Arlington, VA

Angulo M, Rooks BT, Gill M, Goldstein T, Sakolsky D, Goldstein B, Monk K, Hickey MB, Diler RS, Hafeman D, Merranko J, Axelson D, Birmaher B., 2017. Psychometrics of the screen for adult anxiety related disorders (SCAARED)- A new scale for the assessment of DSM-5 anxiety disorders. Psychiatry Res. 253, 84-90.

Chorpita BF, Yim L, Moffitt C, Umemoto LA, Francis SE., 2000. Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. Behav. Res. Ther. 38, 835-55.

Connell J, Barkham M, Mellor-Clark J., 2007. CORE-OM mental health norms of students attending university counselling services benchmarked against an age-matched primary care sample. Br J Guid Counc. 35, 41–57.

Ebesutani C, Reise SP, Chorpita BF, Ale C, Regan J, Young J, Higa-McMillan C, Weisz JR., 2012. The revised child anxiety and depression scale-short version: scale reduction via exploratory bifactor modeling of the broad anxiety factor. Psychol. Assess. 24, 833-45.

Lovibond SH, Lovibond PF., 1995. Manual for the Depression Anxiety & Stress Scales, 2nd Edition. Psychology Foundation. Sydney.

Macaskill A., 2013. The mental health of university students in the United Kingdom. Br J Guid Counc. 41, 426–441.

Moore SA, Dowdy E, Furlong MJ., 2017. Using the Depression, Anxiety, Stress Scales–21 with U.S. adolescents: An alternate models analysis. J. Psychoeduc. Assess. 35, 581–598.

Murray A.L, Johnson W., 2013. The limitations of model fit in comparing the bi-factor versus higher-order models of human cognitive ability structure. Intelligence. 41, 407-422.

Murray AL, Obsuth I, Eisner M, Ribeaud, D., 2017. Evaluating longitudinal invariance in dimensions of mental health across adolescence: An analysis of the Social Behavior Questionnaire. Assessment, Early view, doi: 1073191117721741.

Muthén LK, Muthén BO., 1998-2014. Mplus User's Guide, 7th edition. Muthén & Muthén.

Piqueras JA, Martín-Vivar M, Sandin B, San Luis C, Pineda D., 2017. The Revised Child Anxiety and Depression Scale: A systematic review and reliability generalization meta-analysis. J. Affect. Disord. 218, 153-169.

Polanczyk GV, Salum GA, Sugaya LS, Caye A, Rohde LA., 2015. Annual research review: a meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. J. Child Psychol. Psychiat. 56, 345–365.

Reise S.P., 2012. The rediscovery of bifactor measurement models. Multivariate Behav Res. 475, 667-696.

Remes, O., Brayne, C., van der Linde, R., Lafortune, L., 2016. A systematic review of reviews on the prevalence of anxiety disorders in adult populations. Brain Behav. 6. e00497.

Sandin B, Chorot P, Valiente RM, Chorpita BF., 2010. Desarrollo de una versión de 30 items de la Revised Child anxiety and depression scale [development of a 30-item

version of the Revised Child anxiety and depression scale]. Rev. Psicopatol. Psicol.

Clin. 15, 165–178.

Smith SR., 2007 Making sense of multiple informants in child and adolescent

psychopathology: A guide for clinicians. J. Psychoeduc. Assess. 25, 139-149.

Spence SH., 2017 Review-Measurement issues: Assessing anxiety disorders in children and

adolescents. Child Adolesc Ment Health. Early view: doi:10.1111/camh.12251

Stein DJ, Craske MA, Friedman MJ, Phillips KA., 2014. Anxiety Disorders, Obsessive-

Compulsive and Related Disorders, Trauma- and Stressor-Related Disorders, and

Dissociative Disorders in DSM-5. Am. J. Psychiatry. 171, 611-61

Szabo´ M., 2010. The short version of the Depression Anxiety Stress Scales (DASS-21):

Factor structure in a young adolescent sample. J Adolesc. 33, 1-8.

Van Ameringen, M., Stein, M.B., & Hermann, R., (2013). Comorbid anxiety and depression:

Epidemiology, clinical manifestations, and diagnosis. Uptodate. Available at:

https://www.scribd.com/document/188525715/Comorbid-anxiety-and-depression-

Epidemiology-clinical-manifestations-and-diagnosis-pdf

Willis GB., 2004. Cognitive interviewing: A tool for improving questionnaire design. Sage,

London.

Zahn–Waxler C, Klimes–Dougan, B, Slattery MJ., 2000. Internalizing problems of childhood

and adolescence: Prospects, pitfalls, and progress in understanding the development

of anxiety and depression. Dev Psychopathol. 12, 443-66.

Zinbarg RE, Revelle W, Yovel I, Li W., 2005. Cronbach's α, Revelle's β, and McDonald's ω

H: Their relations with each other and two alternative conceptualizations of reliability.

Psychometrika. 70, 123-133.

Zupanick, C.E. (2014). The New DSM-5: Anxiety Disorders and Obsessive-Compulsive

Disorders. Disorders & Issues DSM-5 Available at:

https://www.mentalhelp.net/articles/the-new-dsm-5-anxiety-disorders-and-obsessive-

compulsive-disorders/

Table 1: CFA Solutions on the 47 Items of the Revised Child Anxiety and Depression Scale (RCADS)

RCADS Scale and question number	Anxiety	SAD	GAD	PD	SP	OCD	Depression
SAD							
45	.64	-.14					
18	.67	-.18					
9	.49	.06					
17	.68	.66					
5	.66	.52					
33	.74	.09					
46	.51	.03					
GAD							
1	.70		-.01				
35	.77		.06				
13	.73		.27				
22	.78		.37				
27	.85		.56				
37	.71		.18				
PD							
3	.44			.43			
24	.59			.59			
28	.66			.44			
34	.76			.33			
26	.84			-.13			
14	.71			.46			
36	.82			-.13			
39	.66			.34			
41	.88			-.04			
SP							
38	.51				.34		
4	.69				.12		
7	.44				.41		
8	.56				.40		
12	.51				.44		
30	.67				.46		
32	.68				.47		
20	.63				.62		
43	.77				.47		
OCD							
10	.75					.05	
16	.58					.37	
23	.86					.09	
31	.76					.46	
42	.68					.66	
44	.75					.47	
Depression							
2							.76
6							.79
11							.59
15							.74
19							.79
21							.69
25							.80

29	.81
40	.78
47	.69

Table 2: CFA Solutions for the 30 and 25 item short forms of the Revised Child Anxiety and

Depression Scale (RCADS) based on an adult sample

	RCADS 30-item short form							RCADS 25-item Short form
RCADS Scale and question number	**Anxiety**	**SAD**	**GAD**	**PD**	**SP**	**OCD**	**Depression**	
SAD								Anxiety
18	.67	.10						
9	.56	.17						
17	.60	.58						.61
5	.61	.55						.61
33								.67
46	.51	.18						
GAD								
1	.76		-.04					
35	.83		.05					
13	.69		.24					.70
22	.85		.33					
27	.82		.57					.80
37	.		.					.69
PD								
34	.73		.40					
26	.70		.28					.73
14	.73		.32					
36								.73
39	.68		.42					
41	.77		.40					.82
SP								
38	.57				.23			
4								.63
30	.76				.25			
32	.64				.48			.61
20	.71				.58			
43	.73				.54			.72
OCD								
10	.66					.44		
16	.59					.02		
23	.84					.32		
31	.72					-.17		.73
42								.66
44	.74					-.24		.74
Depression								
2							.78	
6							.81	
11								
15								
19							.77	
21							.69	
25							.80	
29							.83	

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