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A Psychometric Analysis of the Positive and Negative Affect Schedule for Children–Parent Version in a School Sample

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The current study was the 1st to examine the psychometric properties of the Positive and Negative Affect Schedule for Children–Parent Version (PANAS-C-P) using a large school-based sample of children and adolescents ages 8 to 18 ($N = 606$). Confirmatory factor analysis supported a 2-factor (correlated) model of positive affect (PA) and negative affect (NA). The PANAS-C-P scale scores also demonstrated acceptable internal consistency and convergent and divergent validity. The PANAS-C-P PA and NA scale scores also related to measures of anxiety and depression in a manner consistent with the tripartite model. Scale means and standard deviations were reported by grade and sex to provide normative data for the PANAS-C-P scales. Results from the present study provide initial support for the PANAS-C-P as a parent-reported perspective of youth PA and NA among school-based youths.

Keywords: negative affectivity, tripartite model, children, adolescents, parent report

Anxiety and depression are among the most common mental health concerns in youths (e.g., Compas, 1997; Kashani & Orvashel, 1990), with prevalence rates of 25% in the general population (Costello, Foley, & Angold, 2006). Comorbidity rates between anxiety and depression are also high, ranging up to 61.9% (Brady & Kendall, 1992). Given the high degree of relatedness between anxiety and depression, researchers have sought to account for and explain the underlying relationship between anxiety and depression. In pursuit of that aim, Clark and Watson (1991) proposed the tripartite model, which articulates that temperamental traits (i.e., positive and negative affect) largely underlie the commonalities between anxiety and depression. Specifically, the model originally posited that individuals with anxiety and depression both share the common trait of high negative affect (NA) and individuals with anxiety and depression may be differentiated by positive affect (PA) and physiological hyperarousal. Whereas individuals with depressive disorders are characterized by low PA, individuals with anxiety disorders are characterized by high physiological hyperarousal.

Although the tripartite model has been supported among adult populations (Watson et al., 1995), all aspects of the original model have not been demonstrated consistently in adults (Brown, Chorpita, & Barlow, 1998) or in children (e.g., Chorpita, Daleiden, Moffitt, Yim, & Umemoto, 2000; Lonigan, Phillips, & Hooe, 2003). For instance, although Chorpita, Daleiden, et al. (2000) found support for the relationship between anxiety and high NA, they found less evidence for physiological hyperarousal being associated with all anxious youths in their sample, suggesting that physiological hyperarousal may not be related specifically to all anxiety disorders. Furthermore, there has been some evidence for a small but significant (negative) relationship between PA and anxiety in recent studies (Cannon & Weems, 2006; Hughes & Kendall, 2009; Laurent et al., 1999). In addition, although some researchers have found NA and PA to be orthogonal constructs in youths (Cannon & Weems, 2006; Lonigan et al., 2003), as suggested by the original tripartite model, others have found a moderate negative correlation between self-reported NA and PA in youths (e.g., −.29 and −.16 in Chorpita & Daleiden, 2002, and Laurent et al., 1999, respectively).

In addition to NA being related to internalizing disorders, there is some evidence that NA is also related to externalizing disorders, such as conduct disorder and attention-deficit hyperactivity disorder (ADHD; Baldwin & Dadds, 2008; Loney, Lima, & Butler, 2006). Loney et al. (2006) found positive correlations between NA and self-reported conduct and ADHD problems in school children between sixth and 12th grade, and this relationship has been supported in children between third and seventh grade (Baldwin & Dadds, 2008). Formal models that include NA, PA, and externalizing disorders, however, have yet to be developed.

Measurement of NA and PA

To measure these important constructs of NA and PA among youths, Laurent et al. (1999) developed the Positive and Negative Affect Schedule for Children (PANAS-C), which yields a 15-item

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NA scale and 12-item PA scale. These two NA and PA scales measure in children the temperament dimensions of positive and negative emotionality directly related to the two personality dimensions of *extraversion* and *neuroticism*. The PANAS-C has become a widely used youth self-report measure of NA and PA, and its NA and PA scale scores have demonstrated reliability and validity in both school-based and clinic-referred settings (Chorpita & Daleiden, 2002; Laurent et al., 1999). Further supporting the utility of the PANAS-C, Chorpita and Daleiden (2002) found that the PANAS-C NA and PA scale scores evidenced greater divergent and convergent validity coefficients with criterion measures of anxiety and depression in a clinical sample (consistent with the tripartite model) when compared with the Affect and Arousal Scales (Chorpita, Daleiden, et al., 2000), another youth-reported measure of NA and PA.

The Importance of Parent Reports

Although the youth-report PANAS-C has demonstrated strong performance with respect to measuring NA and PA, the importance of incorporating information from additional informants (e.g., parents) to increase the accuracy and breadth of information obtained during youth assessments has been highlighted (e.g., De Los Reyes & Kazdin, 2005). The use of a multi-informant assessment system that capitalizes on the diversity of viewpoints represented by different informants is typically viewed as the gold standard for youth assessments (Achenbach, McConaughy, & Howell, 1987). A multi-informant approach typically allows for a more comprehensive profile of youth symptoms and problems with which to better inform clinical formulations above and beyond youth self-reports alone (Barbosa, Tannock, & Manassis, 2002). Although parent reports of youth internalizing problems have been questioned for their moderate convergence with child-reported measures (e.g., Kenny & Faust, 1997), there is evidence for the utility and applicability of parent-report measures, even for internalizing constructs, in both clinical and nonclinical populations (e.g., Achenbach & Rescorla, 2001; Ebesutani, Bernstein, Nakamura, Chorpita, & Weisz, 2010).

Previous studies have also demonstrated parents' ability to provide important information specifically regarding their children's temperamental traits. For example, Phillips, Lonigan, Driscoll, and Hooe (2002) had parents complete the PANAS (adult version) to report on their children's NA and PA. Consistent with the relationships of NA and PA to the tripartite model, they found significant relationships between child- and parent-reported NA and child-reported anxiety and depression. Rothbart, Ahadi, Hershey, & Fisher (2001) and Capaldi and Rothbart (1992) also created the Child Behavior Questionnaire and the Early Adolescent Temperament Questionnaire parent version, respectively, to aid in measuring temperamental constructs in younger and older youths from parental perspectives.

The Present Study

Despite the potential added utility of having parent-reported measures of temperamental constructs such as NA and PA, a parent-report version of the PANAS-C has not been developed or evaluated psychometrically. Without such a measure, the added utility of a parent-reported instrument in measuring NA and PA in youths, as targeted by the PANAS-C, remains unexplored. Given the demonstrated utility of parent-reported measures in other related areas, such as in measuring youth anxiety and depression, it is likely that a parent-report version of the PANAS-C (the PANAS-C-P) will also prove valuable to the field. The PANAS-C-P also measures NA in ways more specifically related to anxiety and depression than other instruments, such as the Child Behavior Questionnaire and the Early Adolescent Temperament Questionnaire. Whereas the Child Behavior Questionnaire, for example, also measures NA (in addition to measuring extraversion/surgency and effortful control), the Child Behavior Questionnaire measures NA by means of a broader range of problem areas, including shyness, discomfort, fear, anger/frustration, and sadness (Rothbart et al., 2001). The PANAS-C and PANAS-C-P, on the other hand, include a list of adjectives describing recent emotional experiences more specifically related to anxiety and depression. Chorpita and Daleiden (2002), for example, found that the PANAS-C NA scale demonstrated greater associations (i.e., higher validity coefficients) with criterion measures of anxiety and depression than did the Affect and Arousal Scales (Chorpita et al., 2000), as noted earlier. The PANAS-C-P—like the PANAS-C—may therefore be a preferable measure for those interested in assessing temperament dimensions more closely related to anxiety and depression. In the present study, we therefore developed the PANAS-C-P, by modifying the items of the PANAS-C (Laurent et al., 1999) to be consistent with parents' perspectives of their children, and we examined its psychometric properties in a large, school-based sample of children and adolescents. An additional aim of the present study was to provide normative data for the PANAS-C-P NA and PA scale scores to increase their interpretability and aid in future research on the clinical utility of these parent-reported NA and PA scales.

We hypothesized that the factor structure of the PANAS-C-P NA and PA scales would evidence acceptable model fit, given that the PANAS-C previously evidenced an adequate factor structure (Laurent et al., 1999). Given mixed findings regarding whether NA and PA are orthogonal (e.g., Cannon & Weems, 2006; Laurent et al., 1999), we examined both correlated and uncorrelated models of NA and PA and compared their respective model fit statistics. Given these mixed findings, we did not make specific predictions regarding which model would evidence better model fit, and these analyses were largely exploratory. We instead intended to contribute our findings to the discussion of this topic in the literature. We also examined model parameter invariance of the PANAS-C-P two-factor structure across child and adolescent subsamples (cf. Lonigan, Hooe, David, & Kistner, 1999). Similar to Lonigan et al.'s (1999) findings based on youth reports on the (adult) PANAS, we expected that the PANAS-C-P model would be invariant across child and adolescent subsamples.

In addition to predicting that both the NA and PA scale scores of the PANAS-C-P would evidence strong internal consistency, we predicted that the PANAS-C-P scale scores would evidence acceptable levels of convergent (and divergent) validity by (a) correlating significantly and positively with corresponding scales on

the PANAS-C[1] and (b) demonstrating consistency with notions posited by the tripartite model. Regarding our validity test predictions based on the tripartite model, we predicted that (a) the PANAS-C-P NA scale scores would correlate significantly and positively with criterion measures of depression and anxiety, (b) the PANAS-C-P PA scale scores would correlate significantly (and negatively) only with depression criterion measures, and (c) the PANAS-C-P PA scale scores would be significantly less related to anxiety, compared with depression. Given the lack of consensus regarding who is the best informant to report on these internalizing constructs, we used both youth-reported and parent-reported measures as criterion measures of anxiety and depression.

To evaluate the discriminant validity of the PANAS-C-P scale scores, we examined their ability to differentiate between youths with and without elevations on measures of anxious and depressive symptoms. Specifically, we compared NA and PA scale scores of youths scoring in the clinical (T scores ≥ 65) and nonclinical (T scores < 65) ranges on the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) Anxiety and Affective Problems scales, which are oriented to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*; see American Psychiatric Association, 2000). On the basis of the tripartite model, we expected that youths in the clinical range on the CBCL *DSM*-oriented Anxiety and Affective Problems scales would score significantly higher on the PANAS-C-P NA scale than youths in the nonclinical range on these scales. Related to this, we expected that youths in the clinical range on the Affective Problems scale would score significantly lower on the PANAS-C-P PA scale than youths in the nonclinical range on this scale, given that depression is uniquely associated with low PA according to the tripartite model.

In addition to providing normative data for the PANAS-C-P scales, we conducted an additional set of analyses of variance (ANOVAs; examining a main effect for grade level) to inspect for any developmental effects on reported levels of NA and PA. Also, given that Lonigan et al. (1999) found that youths' NA and PA scores on the (adult) PANAS did not significantly differ across boys and girls ($p > .001$), we also conducted this test, and we hypothesized the PANAS-C-P NA and PA scale scores would not significantly differ across sex.

Method

Participants. Consents were distributed ($n = 7{,}370$) to public and private schools across the island of O'ahu seeking youths' and their parents' participation in this school-based study. Of these, 26.6% ($n = 1{,}961$) of youths and their parents consented to participate, and 17.5% ($n = 1{,}288$) participated and completed forms. Among the participating youths, 47% of their parents returned their packets for a total of 606 child–parent dyads recruited in Grades 3 through 12 (median grade = 7).[2] Youths ranged in age from 8 to 18 years ($M = 12.52$, $SD = 2.88$). The sample consisted of 315 girls (52.0%) and 245 boys (40.4%; youth sex data were not reported for 46 participants). Youths' ethnicities were multiethnic ($n = 250$; 41.3%), Asian American ($n = 314$; 51.8%), White ($n = 19$; 3.1%), Pacific Islander ($n = 14$; 2.3%), and Latino American/Hispanic ($n = 2$; 0.3%). Seven participants did not report ethnicity.

Of the 606 primary caregivers in the present sample, there were 556 biological parents (91.7%), 12 adoptive parents (2.0%), 4 step parents (0.7%), 2 foster parents (0.3%), 3 grandparents (0.5%), and 7 other types of caregivers (1.2%). Marital status among caregivers was 441 married (77.7%), 67 divorced or separated (11.1%), 46 single (7.6%), 5 widowed (0.8%), and 2 other types of relationships (0.2%). Reported family income categories were as follows: \$0–\$25,000 ($n = 74$; 12.2%), \$25,001–\$40,000 ($n = 68$; 11.2%), \$40,001–\$55,000 ($n = 52$; 8.5%), \$55,001–\$70,000 ($n = 55$; 9.1%), \$70,001–\$85,000 ($n = 55$; 9.1%), \$85,001 or more ($n = 255$; 42.1%). Primary caregivers reported their highest level of education as follows: less than high school ($n = 12$; 2.0%), high school ($n = 109$; 17.9%), 1 or 2 years of college ($n = 182$; 30.0%), 4 years of college ($n = 174$, 28.7%), and some graduate school ($n = 89$; 14.7%).

Measures.

Child reports.

PANAS-C (Laurent et al., 1999). The PANAS-C is a 27-item, youth self-report measure of PA and NA, which lists adjectives of various mood states. Children are asked to rate the extent to which they felt each way in the past few weeks. Answers are rated on a 5-point Likert scale, ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). The PANAS-C yields a 15-item NA scale and a 12-item PA scale. Laurent et al. found evidence for good convergent and divergent validity of the NA and PA scale scores with reports of anxiety and depressive symptoms as well as good internal consistency of both scales ($\alpha_{NA} = .92$; $\alpha_{PA} = .89$). Internal consistencies for the present study of the NA and PA scales were .90 and .88, respectively.

Revised Child Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). The RCADS is a 47-item, youth self-report questionnaire with the following subscales: Separation Anxiety Disorder, Social Phobia, Generalized Anxiety Disorder, Panic Disorder, Obsessive–Compulsive Disorder, and Major Depressive Disorder (MDD). It also yields a Total Anxiety scale and a Total Internalizing scale. Items are rated on a 4-point Likert scale from 0 (*never*) to 3 (*always*). The factor structure, reliability, and validity of the RCADS scales have been supported in both school-based and clinic-referred samples (Chorpita, Moffitt, & Gray, 2005; Chorpita, Yim, et al., 2000). The RCADS MDD and Total Anxiety scales were chosen to serve as (child-based) criterion measures of depression and anxiety, respectively, in the present study. The RCADS was selected over other prominent self-report measures of depression and anxiety (i.e., the Children's Depression Inventory and the Revised Child Manifest Anxiety Scale), given that these RCADS scales evidenced greater

[1] Notably, as cross-informant (e.g., parent vs. child) correlations for internalizing problems tend to fall in the range of .20 to .30 (Achenbach, McConaughy, & Howell, 1987), we expected only moderate correlations to emerge for these (cross-informant) convergent validity analyses.

[2] To evaluate the variance in the data due to clustering of the school factor, we fit a random effects ANOVA model (Bryk & Raudenbush, 1992) to the data using HLM 6.04 and calculated ICCs representing the ratio of the intercept estimates to the sum of the intercept and residual estimates. The resulting ICC values were .000071 for NA and .0044 for PA, suggesting minimal variance in the data due to a school clustering factor. We thus felt justified in collapsing across all schools when presenting our data, because these HLM results indicate that youths' reports on the PANAS-C-P NA and PA scales did not differ significantly as a function of schools attended.

correspondence to constructs of depression and anxiety than the Children's Depression Inventory and Revised Child Manifest Anxiety Scale (Chorpita et al., 2005). In the present study, the RCADS MDD and Total Anxiety scale scores evidenced internal consistencies of .80 and .92, respectively.

Parent reports.

PANAS-C-P. The PANAS-C-P is a 27-item, parent-report measure of youth PA and NA and is based on the items and order of the PANAS-C. When adapting the PANAS-C-P from the PANAS-C, all adjectives were kept in the same order, but the instructions were modified slightly to be consistent with the parent's perspective (e.g., "Indicate to what extent your child has felt this way during the past few weeks"). Answers are rated on the same 5-point Likert scale, ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). The purpose of the current study was to examine the psychometric properties of this new measure; reliability and validity indices are thus reported later in the Results section.

Revised Child Anxiety and Depression Scale–Parent Version (RCADS-P; Ebesutani et al., 2010). The RCADS-P is a 47-item parent-report measure of youth anxiety and depressive symptoms, yielding the same *DSM*-oriented subscales as the RCADS (child version): Separation Anxiety Disorder, Social Phobia, Generalized Anxiety Disorder, Panic Disorder, Obsessive–Compulsive Disorder, and MDD. The RCADS-P also yields a Total Anxiety scale and a Total Internalizing scale. Items are rated on a 4-point Likert-scale from 0 (*never*) to 3 (*always*). Ebesutani et al. demonstrated favorable internal consistency ($\alpha_{MDD} = .84$, $\alpha_{Total\ Anxiety} = .95$) and convergent and discriminant validity for the RCADS-P scale scores in a clinical sample. Discriminant validity of the RCADS-P MDD scale was evidenced by its ability to differentiate youths receiving diagnoses of MDD from youths receiving any anxiety disorder diagnosis (with no MDD). Discriminant validity of the five RCADS-P anxiety subscales was also evidenced by their ability to differentiate youths who received diagnoses of the targeted anxiety disorder from all other youths with nontargeted anxiety disorders. Given these strengths, we used the RCADS-P MDD and Total Anxiety scales as (parent-based) criterion measures of depression and anxiety, respectively. Internal consistencies for the present study of the MDD and Total Anxiety scale scores were .80 and .91, respectively.

Child Behavior Checklist for Ages 6–18 (CBCL/6–18; Achenbach & Rescorla, 2001). The CBCL/6–18 is a 118-item parent-report measure of emotional and behavioral problems among youths. Items are rated on a Likert scale (0 = *not true,* 1 = *somewhat or sometimes true,* 2 = *very true or often true*). The CBCL/6–18 yields the following main scale types: (a) Competence and Adaptive scale scores, (b) Syndrome scale scores, (c) *DSM*-oriented scale scores, and (d) Total Problems scale scores. According to Achenbach and Rescorla, the *DSM*-oriented scales were constructed in accordance with current *DSM* nosology of child problems through clinician agreement among 22 highly experienced child psychiatrists and psychologists and were based on the extent to which the CBCL/6–18 items represented each of the six *DSM*-oriented problem areas. Ebesutani et al. (in press) found that the CBCL/6–18 *DSM*-oriented Anxiety Problems and Affective Problems scales predicted clinical diagnoses of anxiety and depression just as well as and sometimes better than the relevant Syndrome scales. Because the CBCL/6–18 *DSM*-oriented Anxiety Problems and Affective Problems scales were also constructed to map more specifically to anxiety and depression, as compared with the CBCL/6–18 Syndrome Scales (Achenbach & Rescorla, 2001), we used the *DSM*-oriented Anxiety and Affective Problems scale scores as additional (parent-reported) criterion measures of anxiety and depression in the present study. Achenbach and Rescorla previously reported internal consistency estimates for these Anxiety and Affective subscales of .72 and .82, respectively, for youths ages 6 to 18. Internal consistencies of these Anxiety and Affective Problems scale scores in the present study were .70 and .80, respectively.

Procedure. The current study was part of a larger school-based study of negative emotions in youths, which received institutional review board approval at the University of Hawaii at Mānoa. Parental consent was obtained through take-home forms that were signed and returned to school. Child assent was also obtained prior to the completion of questionnaires in a group format at school. Assistance was provided if children had difficulty reading and/or filling out questionnaires. After children completed their questionnaires, they were asked to take corresponding parent forms home, which were returned to the university in stamped self-addressed envelopes. Each child received a $5 gift certificate for participating.

Data analytic strategy. For all measures in the study, we required that at least 90% of items be complete in order to be scored and included in analyses. A 90% completion criterion was applied to avoid imputing data from scales with a large number of missing predictors. To address missing data on all forms, we used the Missing Value Analysis module of SPSS 15.0 to impute missing values. SPSS Missing Value Analysis imputes values for continuous variables through a maximum likelihood method based on expectation-maximization algorithms (Little & Rubin, 1987). Missing data levels were low across all forms in the present study. Specifically, 2.3% of the PANAS-C-P forms had only two missing items, 6.4% had one missing item, and the remaining 91.3% had no missing data. For the PANAS-C forms, 86.9% had no missing data, 7.9% had only one missing item, 4.3% had two missing items, and 0.9% had –three to five missing items. Similar low levels of missing data were also found among the RCADS, RCADS-P, and CBCL.

Regarding our data analyses, we first used confirmatory factor analysis (CFA), using the EQS statistical program, to assess how well the 27 items of the PANAS-C-P fit the hypothesized two-factor structure of NA and PA. We used a confirmatory approach because previous research found support for the hypothesized two-factor structure with the PANAS-C (Laurent et al., 1999). We also used the Satorra–Bentler scaled chi-square statistic (Satorra & Bentler, 1991) as an index of model fit between competing models, given that (a) this chi-square statistic has been found to be the most reliable chi-square statistic for evaluating models composed of nonnormal distributional data (Curran, West, & Finch, 1996) and (b) the PANAS-C-P NA scale was moderately positively skewed ($g_1 = 2.04$, $SE = 0.09$) and the PA scale was slightly negatively skewed ($g_1 = -0.35$, $SE = 0.09$). We also used root-mean-square error of approximation (RMSEA) values of .08 or lower, and comparative fit index (CFI) values of .90 and above, as indicators of good model fit. We also used Tabachnick and Fidell's (2001) recommended cutoff of .32 as the minimal factor loading for an item to belong to a factor.

To investigate the reliability of the PANAS-C-P PA and NA scale scores, we evaluated Cronbach's alpha coefficients. We used .80 as the cutoff for acceptable reliability, as recommended by Nunnally and Bernstein (1994). For our validity tests, we set alpha at .01 to correct for Type I error rates.

Results

Descriptive statistics. Intercorrelations between measures as well as means, standard deviations, and maximum scores for each measure are provided in Table 1.

Factor structure.

Model fit. The results of the CFA (i.e., fit statistics) appear in Table 2 and represent moderate model fit for the 27-item PANAS-C-P two-factor (correlated and uncorrelated) model of NA and PA according to RMSEA index standards (i.e., RMSEA $< .08$). All factor loadings were also statistically significant and can be found in Table 3. One item evidenced a particularly low loading on the PA factor (i.e., *calm* loaded at .34 onto PA), although this did meet the minimum factor loading of .32 to remain on the PA factor. The remaining 11 PA items, however, evidenced strong loadings on the PA factor, ranging from .60 to .86. All 15 NA items also loaded strongly on the NA factor, ranging from .56 to .77.

Correlated versus uncorrelated models. We then used the full sample to test the 27-item two-factor (correlated NA and PA) solution of the PANAS-C-P against a two-factor (uncorrelated) model. The Satorra–Bentler chi-square scaled test statistics for these competing models appear in Table 2. Through comparison of the Satorra–Bentler scaled chi-square statistics with the scaled difference in chi-square test (Satorra & Bentler, 1994), the two-factor (correlated) model demonstrated significantly better model fit than the two-factor uncorrelated model, $\chi^2_{\text{diff}}(1) = 6.71$, $p < .001$. Given the better model fit of the correlated two-factor model, we used the EQS program to examine the factor correlation between NA and PA by means of the phi matrix (i.e., factor correlation matrix of the PANAS-C-P NA and PA scales). Results indicated that NA and PA correlated significantly at $-.15$. The observed correlation between the PANAS-C-P NA and PA scales was also negative ($r = -.13$, $p < .01$). We then examined the phi matrix and observed correlations among the children and adolescents subsamples and found a similar pattern of results (children: $r = -.21$, $p < .01$; $r = -.18$, $p < .01$, respectively; adolescents: $r = -.14$, $p < .01$; $r = -.12$, $p < .05$, respectively). Notably, the phi matrix parameters and observed correlations between NA and PA among the child subsample were somewhat more negative than the correlations among the adolescent subsample.

Model improvement. Although the RMSEA index reached acceptable levels of model fit, the CFI index did not meet the .90 cutoff for good fit for the two-factor models of NA and PA. We

Table 1
Descriptive Statistics and Intercorrelations Between All Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
PANAS-C												
1. PA	—											
2. NA	−.01	—										
RCADS												
3. MDD	−.24**	.54**	—									
4. Anxiety	−.07	.59**	.67**									
PANAS-C-P												
5. PA	.33**	−.03	−.16**	−.04	—							
6. NA	−.08*	.20**	.14**	.09*	−.13**	—						
RCADS-P												
7. MDD	−.21**	.10*	.22**	.02	−.40**	.50**	—					
8. Anxiety	−.11**	.13**	.12**	.16**	−.18**	.50**	.64**	—				
CBCL												
9. *DSM*-AFF	−.16**	.11**	−.00	.14**	−.31**	.59**	.72**	.52**	—			
10. *DSM*-ANX	−.11**	.02	−.00	.03	−.16**	.50**	.51**	.63**	.60**	—		
11. *DSM*-CON	−.03	.02	.04	−.10*	−.15**	.47**	.51**	.29**	.59**	.44**	—	
12. *DSM*-ADHD	−.03	.08	.11*	−.01	−.17**	.41**	.52**	.35**	.60**	.47**	.66**	—
Age	−.06	−.06	−.09*	−.10*	−.04	.03	.11**	−.08	−.11*	−.02	.05	−.00
Sex	−.03	.00	.02	.02	.00	.00	.02	−.09*	.02	.03	.07	.13**
Boys												
M	42.2	31.5	8.22	31.4	43.2	23.4	3.95	17.9	2.05	1.51	1.90	2.88
SD	9.18	11.2	4.58	14.9	8.75	8.46	3.25	10.4	2.73	1.99	2.93	3.05
Max	60	66	24	86	60	71	15	52	14	11	19	14
Girls												
M	42.7	31.6	8.11	33.9	43.8	23.5	3.85	18.4	2.11	1.40	2.28	3.56
SD	9.04	11.0	4.52	15.7	8.40	9.32	3.42	11.6	2.94	1.72	2.95	3.36
Max	60	73	27	91	60	72	17	72	20	10	13	14

Note. $N = 566$. PANAS-C = Positive and Negative Affect Schedule for Children; PA = Positive Affect; NA = Negative Affect; RCADS = Revised Child Anxiety and Depression Scales; MDD = Major Depressive Disorder; PANAS-C-P = Positive and Negative Affect Schedule for Children–Parent Report; RCADS-P = Revised Child Anxiety and Depression Scales–Parent Report; CBCL = Child Behavior Checklist; *DSM*-AFF = *DSM*-oriented Affective Problems scale; *DSM*-ANX = *DSM*-oriented Anxiety Problems scale; *DSM*-CON = *DSM*-oriented Conduct Problems scale; *DSM*-ADHD = *DSM*-oriented Attention-Deficit Hyperactivity Disorder Problems scale.
* $p < .05$. ** $p < .01$.

Table 2
Fit Statistics for Confirmatory Factor Analytic PANAS-C-P and PANAS-C Models

Model	Satorra–Bentler χ^2	*df*	*p*	RMSEA	CFI	AIC
PANAS-C-P: Full sample ($N = 606$)						
Two factors (correlated)	1,365.76	323	<.001	.07	.78	719.76
Two factors (uncorrelated)	1,374.95	324	<.001	.07	.78	726.95
PANAS-C-P: Full sample ($N = 606$)						
Two factors (correlated; removed *calm*)	1,291.89	298	<.001	.07	.78	695.89
Two factors (correlated; removed *calm, jittery, excited, lonely*)	1,133.58	229	<.001	.08	.79	675.58
PANAS-C: Full sample ($N = 606$)						
Two factors (correlated)	1,151.67	323	<.001	.07	.85	505.67
PANAS-C-P: Child subsample ($n = 289$)						
Two factors (correlated)	814.96	323	<.001	.07	.80	168.96
PANAS-C-P adolescent subsample ($n = 289$)						
Two factors (correlated)	847.63	323	<.001	.08	.77	201.63

Note. PANAS-C-P = Positive and Negative Affect Schedule for Children–Parent Report; PANAS-C = Positive and Negative Affect Schedule for Children; RMSEA = root-mean-square error of approximation; CFI = comparative fit index; AIC = Akaike's information criterion.

therefore omitted weak items from the model in an attempt to improve model fit. Specifically, we first omitted *calm* from the model given its relatively low factor loading (.34) on the PA factor. We then additionally omitted *jittery*, *excited,* and *lonely* from the model as the modification indices associated with these items were greater than 6.64.[3] The results of these additional CFAs based on the full sample appear in Table 2 and indicate that the RMSEA and CFI fit statistics did not improve substantially despite making these changes to the two-factor model of NA and PA. We thus retained the original 27-item model for subsequent analyses to further examine the psychometric properties of the 27-item PANAS-C-P in other domains.

Table 3
Factor Loadings and Internal Consistency Alpha-If-Items-Removed Coefficients for the Items Composing the PANAS-C-P NA and PA Subscales

PANAS-C-P	PA	NA	α if items removed
PA scale items			
Joyful	.86	—	.90
Cheerful	.84	—	.90
Lively	.80	—	.91
Happy	.79	—	.91
Energetic	.73	—	.91
Proud	.72	—	.91
Active	.70	—	.91
Delighted	.69	—	.91
Excited	.64	—	.91
Strong	.64	—	.91
Interested	.60	—	.91
Calm	.34	—	.92
NA scale items			
Miserable	—	.77	.92
Afraid	—	.75	.92
Blue	—	.74	.92
Scared	—	.71	.92
Guilty	—	.70	.92
Sad	—	.70	.92
Disgusted	—	.67	.92
Frightened	—	.67	.92
Lonely	—	.66	.92
Ashamed	—	.65	.92
Gloomy	—	.64	.92
Upset	—	.64	.92
Mad	—	.61	.92
Nervous	—	.61	.92
Jittery	—	.56	.92

Note. PANAS-C-P = Positive and Negative Affect Schedule for Children–Parent Version; PA = Positive Affect; NA = Negative Affect. Cronbach's alpha is based on all 27 items of the PANAS-C-P.

Comparing model fit to the PANAS-C. To have a basis for comparing the low CFI fit statistics associated with the PANAS-C-P two-factor model of NA and PA, we also conducted a CFA on the PANAS-C (Laurent et al., 1999) in the current data set and tested the same two-factor model of NA and PA. The results of this CFA based on the PANAS-C two-factor NA/PA model appear in Table 2. The PANAS-C evidenced the same RMSEA value as the PANAS-C-P (RMSEA = .07). Also, although the PANAS-C evidenced a somewhat larger CFI value than the PANAS-C-P for the two factor model, the CFI for the PANAS-C (CFI = .85) also did not meet the .90 threshold of good fit.

Differences between children and adolescents. The CFA results of the PANAS-C-P two-factor (correlated and uncorrelated) NA/PA models among child (ages 8–12; $n = 289$) and adolescent (ages 13–18; $n = 289$) subsamples appear in Table 2. As predicted, and consistent with previous studies (Lonigan et al., 1999), model fit of the PANAS-C-P two factor model of NA and PA was not substantially different between children and adolescents.

Reliability: Internal consistency. Both PANAS-C-P NA and PA subscales demonstrated good internal consistency ($\alpha_{NA} = .92$, $\alpha_{PA} = .92$) with the full sample. In addition, we examined the internal consistency of both NA and PA scales after removing certain items that did not evidence a good fit as determined by the CFA. The only improvement found was by removing *calm* from the PA scale (which improved alpha from .918 to .924); however,

[3] Modification indices represent approximations of the amount that the overall model's chi-square would decrease—and thus statistically improve model fit—if the identified parameter were allowed to be freely estimated. We used 6.64 as the cutoff for significant modification index values because 6.64 reflects the critical value for chi-square at $p < .01$, $df = 1$, and modification indices may be conceptualized as a chi-square statistic with $df = 1$ (Brown, 2006).

this was not significant enough to remove the item from the measure.

We also examined internal consistency across age groups (i.e., grade levels) and sex. The PANAS-C-P NA and PA scales demonstrated good internal consistency for each age group (third/fourth grade: $\alpha_{NA} = .92$, $\alpha_{PA} = .93$; fifth/sixth grade: $\alpha_{NA} = .93$, $\alpha_{PA} = .93$; seventh/eighth grade: $\alpha_{NA} = .89$, $\alpha_{PA} = .90$; ninth/tenth grade: $\alpha_{NA} = .92$, $\alpha_{PA} = .90$; eleventh/twelfth grade: $\alpha_{NA} = .95$, $\alpha_{PA} = .92$). With regard to sex, the PANAS-C-P scale scores also evidenced good internal consistency among the girls ($\alpha_{NA} = .93$, $\alpha_{PA} = .91$) and boys ($\alpha_{NA} = .91$, $\alpha_{PA} = .92$).

Validity.

Construct-specific convergent validity. As predicted, moderate yet significant correlations were found between corresponding NA scales ($r = .20$, $p < .01$) and PA scales ($r = .33$, $p < .01$) on the PANAS-C-P and PANAS-C. These correlations were also in the range expected, given the cross-informant nature of these analyses.

Consistency with the tripartite model. As noted earlier, we then used the theoretical relationships posited by the tripartite model among the constructs of NA, PA, anxiety, and depression to guide the following validity tests. Consistent with the original tripartite model notion that NA and PA are orthogonal, both correlations of the PANAS-C-P NA scale with the (child report) PANAS-C PA scale ($r = -.08$) and the PANAS-C-P PA scale with the (child report) PANAS-C NA scale ($r = -.03$) were nonsignificant and near zero. It is notable, however, that these divergent validity analyses were based on cross-informant reports, which may have attenuated these correlations and contributed to the observed divergence and orthogonality.

A second concept from the tripartite model allowing for validity testing of the PANAS-C-P NA scale score is the notion that NA should be correlated significantly and positively with both anxiety and depression. Results of these analyses appear in Table 1. As predicted, the parent-report PANAS-C-P NA scale was correlated significantly ($p < .01$) and positively with all parent-report criterion measures of anxiety (for the RCADS-P Anxiety scale, $r = .50$; for the CBCL *DSM*-oriented Anxiety scale, $r = .50$; Table 1) and depression (for the RCADS-P MDD scale, $r = .50$; for the CBCL *DSM*-oriented Affective Problems scale, $r = .59$; Table 1). We also conducted these analyses again, using only *child self-report* measures as the criterion for anxiety (i.e., child-reported RCADS Anxiety Total scale) and depression (i.e., child-reported RCADS MDD scale). As predicted, the parent-reported PANAS-C-P NA scale again correlated significantly ($p < .01$) and positively with the child-report measure of depression (the RCADS MDD scale, $r = .14$; Table 1). However, the PANAS-C-P NA scale correlated only with the child-report measure of anxiety (i.e., the RCADS Anxiety Total scale, $r = .09$) at the $p < .05$ significance level, not meeting the 99% confidence level set for these analyses (Table 1).

We then examined the relationship of the PANAS-C-P PA scale to depression and anxiety. These results appear in Table 1. As predicted, the parent-report PANAS-C-P PA scale was correlated significantly ($p < .01$) and negatively with the parent-report criterion measures of depression (i.e., RCADS-P MDD scale, $r = -.40$, Table 1; CBCL *DSM*-oriented Affective Problems scale, $r = -.31$, Table 1). However, contrary to predictions, the correlations between the parent-report PANAS-C-P PA scale and the parent-reported criterion measures of anxiety were also significant ($p < .01$) and moderately negative with the parent-report criterion measures of anxiety (i.e., RCADS-P Anxiety Total scale, $r = -.18$, Table 1; CBCL *DSM*-oriented Anxiety Problems scale, $r = -.16$, Table 1).

Because these negative correlations emerged between the parent-report PA and the parent-report anxiety criterion measures, we further examined the relationship between the parent-report PA scale and the parent-reported anxiety and depression criterion measures. Specifically, we examined whether the correlation between PA and anxiety was significantly less negative (i.e., closer to 0) than the correlation between PA and depression, a notion consistent with the tripartite model. We examined differences between (a) the correlation of the parent-report PANAS-C-P PA scale with criterion measures of anxiety and (b) the correlation of the parent-report PANAS-C-P PA scale with criterion measures of depression, by means of Fisher's z tests for differences between correlated correlations. As expected, the correlations between the PANAS-C-P PA scale and the anxiety criterion measures were significantly smaller (i.e., less negative) than the correlations between the PA scale and the depression criterion measures.

Because of the concern discussed earlier that youths themselves may in fact provide the most accurate reports on their internal states, we conducted these analyses again with child-report measures as the criterion for anxiety and depression. These results also appear in Table 1. Consistent with the tripartite model relating PA to depression and anxiety, (a) the parent-report PANAS-C-P PA scale correlated significantly and negatively with the child-report RCADS MDD scale ($r = -.16$, $p < .01$), and (b) the parent-report PANAS-C-P PA scale was not correlated with the child-report RCADS Anxiety Total scale ($r = .04$, $p > .05$). Regarding this latter test, however, it is notable that this analysis was based on cross-informant reports, which may have contributed to the nonsignificant correlation between the PANAS-C-P PA and RCADS Anxiety Total scale scores.

Discriminant validity. Using CBCL *T* scores to identify youths in the clinically elevated ranges of anxiety and depression, we assessed the degree to which the PANAS-C-P NA and PA scales can differentiate clinically elevated anxious and depressed youths from youths scoring in the nonclinical ranges on these problems. Consistent with the notion that youths with anxiety and depression should have elevated levels of NA, we found that the 95 youths with clinically elevated *T* scores on the CBCL *DSM*-oriented Anxiety or Affective Problems scales[4] scored significantly higher on the PANAS-C-P NA scale ($M = 31.9$, $SD = 12.1$) than did the 511 youths with subclinical *T* scores on the CBCL *DSM*-oriented Anxiety or Affective Problems scales ($M = 21.7$, $SD = 7.0$), $F(1, 604) = 131.6$, $p < .001$. Also, consistent with the tripartite model notion that depression is associated with low PA, the

[4] We also used the CBCL Anxious/Depressed scale to identify youths in the clinically elevated range for problems related to anxiety and depression. Similarly, and consistent with our prediction, we found that the 67 youths with clinically elevated *T* scores on the CBCL Anxious/Depressed scale ($M = 33.6$, $SD = 12.8$) scored significantly higher on the PANAS-C-P NA scale than the 539 youths with subclinical *T* scores on the CBCL Anxious/Depressed scale ($M = 22.0$, $SD = 7.2$), $F(1, 604) = 124.2$, $p < .001$.

76 youths with clinically elevated *T* scores on the CBCL *DSM*-oriented Affective Problems scale scored significantly lower on the PANAS-C-P PA scale ($M = 37.5$, $SD = 10.1$) than the 530 youths with subclinical *T* scores on the *DSM*-oriented Affective Problems scale ($M = 44.4$, $SD = 7.9$), $F(1, 604) = 46.5$, $p < .001$.

Normative data. Normative data for the PANAS-C-P NA and PA scales, including the ranges, means, and standard deviations for the NA and PA scales, are presented in Table 4. These data have been calculated and presented by sex and grade, collapsing grade into five grade groups (e.g., third and fourth grades, fifth and sixth grades). Regarding the ANOVAs conducted to inspect for any developmental effects on reported NA and PA scale scores, we found no significant main effect for grade for PA scores, $F(4, 550) = 1.81$, $p = .13$, and no main effect for grade for NA scores, $F(4, 540) = 0.88$, $p = .48$. We also examined differences in the PANAS-C-P PA and NA scale scores across sex (cf. Lonigan et al., 1999). As expected, there was no significant main effect for sex for the PA scores, $F(1, 550) = 0.93$, $p = .40$, or the NA scores, $F(1, 550) = 0.01$, $p = .92$, consistent with previous studies showing that PA and NA do not substantially differ across boys and girls (Lonigan et al., 1999). The Sex × Grade interactions were also nonsignificant for both the PANAS-C-P PA and NA scales ($p = .39$ and $p = .63$, respectively).

Table 4
Ranges, Means, and Standard Deviations for the PANAS-C-P Subscales by Grade and Sex

Grade and scale	*N*	Min	Max	*M*	*SD*
		Boys			
Third and fourth					
PA	71	24	60	43.99	8.92
NA	71	15	68	24.00	10.10
Fifth and sixth					
PA	50	12	60	43.81	9.69
NA	50	15	63	22.90	9.36
Seventh and eighth					
PA	74	17	58	42.77	7.74
NA	74	15	59	22.50	8.61
Ninth and tenth					
PA	33	25	58	44.34	8.16
NA	33	15	39	21.95	7.16
Eleventh and twelfth					
PA	34	29	60	45.80	7.48
NA	34	15	48	22.23	8.18
All boys					
PA	245	12	60	43.07	8.74
NA	245	15	51	22.96	7.95
		Girls			
Third and fourth					
PA	53	21	60	42.63	8.93
NA	53	15	55	24.56	9.57
Fifth and sixth					
PA	70	31	60	45.66	7.74
NA	70	15	72	24.01	10.18
Seventh and eighth					
PA	72	30	60	43.58	7.64
NA	72	15	46	22.38	6.83
Ninth and tenth					
PA	51	26	59	42.95	8.73
NA	51	15	71	24.32	10.67
Eleventh and twelfth					
PA	82	13	58	41.64	9.61
NA	82	15	51	23.81	7.10
All girls					
PA	315	17	60	43.80	8.35
NA	315	15	72	23.15	9.10
Total sample					
PA	606	12	60	43.52	8.54
NA	606	15	72	23.27	8.79

Note. PANAS-C-P = Positive and Negative Affect Schedule for Children–Parent Version; NA = Negative Affect; PA = Positive Affect.

Discussion

This initial investigation demonstrated favorable psychometric properties for the PANAS-C-P in an ethnically diverse sample of school children and adolescents. CFA supported a two-factor (correlated) NA/PA structure of the PANAS-C-P, and the NA and PA scales evidenced high internal consistency. The validity of the PANAS-C-P NA and PA scale scores was evidenced by (a) significant convergence with construct-consistent NA and PA scales and (b) consistency with tripartite model notions relating NA and PA to anxiety and depression. First, the PANAS-C-P NA scale demonstrated significant associations with both parent- and child-reported measures of anxiety and depression. With respect to this finding, it is notable that the PANAS-C-P NA scale (parent report) evidenced a weaker—although still significant—association with child-reported anxiety compared with parent-reported anxiety. This difference in association with child-reported anxiety compared with parent-reported anxiety is likely because of cross-informant variance attenuating the association between parent-reported NA and child-reported anxiety, as well as shared *informant/method* variance increasing the association between parent-reported NA and parent-reported anxiety. Second, the PANAS-C-P PA scale demonstrated significant negative associations with both parent- and child-reported measures of depression. Related to the qualification discussed earlier, it is also notable that the PANAS-C-P PA scale (parent report) evidenced a weaker—although still significantly negative—association with child-reported depression compared with parent-reported depression. In this case, the greater (negative) association of the PANAS-C-P PA scale with parent-reported depression compared with child-reported depression is likely due in part to the shared informant/method variance between the parents' reports on the PANAS-C-P PA scale and parents' reports on the depression scale. Third, the PANAS-C-P PA scale evidenced no association with child-reported anxiety and a significantly less negative correlation with parent-reported anxiety than parent-reported depression. Again, as noted earlier, the lack of association between the PANAS-C-P PA scale (parent report) and the child-reported anxiety scale was likely due, in part, to the cross-informant variance and the related attenuation caused by these correlations being based on different informants (child vs. parent reports).

In addition, the PANAS-C-P scales also evidenced support for discriminant validity, given the ability for the NA scale to discriminate between youths with and without anxious and depressive problems. The PANAS-C-P PA scale also evidenced the ability to discriminate between youths with and without depressive problems (i.e., youths with depressive problems had significantly lower PA). Finally, normative data have been presented, allowing for the

derivation of *T* scores to identify youths with elevated levels of NA and (low) PA relative to other youths.

Notably, there was some evidence for concern for model fit of the RCADS-P because of the low CFI values. Specifically, although the RMSEA index indicated adequate model fit, the CFI value did not reach the threshold for good model fit, despite attempts to improve model fit through removing potentially problematic items. Although this finding warrants further examination of the degree to which and whether these low CFI values are indicative of significant measurement problems, the CFI values may not be cause for significant alarm given that Byrne (1998) described the RMSEA fit index (which evidenced adequate levels of model fit in the present study) as "one of the most informative criteria in structural equation modeling" (p. 112) given that it includes a penalty function for a lack of parsimony, and Rigdon (1996) stated that in CFA, the RMSEA is favorable to the CFI index for interpretation because of the problematic baseline model that the CFI produces. Further, our present findings related to RMSEA/CFI model fit indices are consistent with previous CFA studies conducted on youth reports on the PANAS. For example, Phillips, Richey, and Lonigan (2002) administered the PANAS (adult version) to 1,716 children, adolescents, and young adults, and their CFI value based on the full sample (.84) also fell below the threshold for good fit, whereas their RMSEA value (.07) fell in the acceptable range. Finally, in addition to child versions of the PANAS exhibiting comparable CFI and RMSEA fit indices, the PANAS-C-P evidenced promising psychometric properties in other domains (i.e., reliability and validity tests). Although these points may reduce concern regarding the low CFI values in the present study, the low CFI values are an important issue that nonetheless must not be overlooked. Until future research better resolves this discrepancy (i.e., fit indices indicating both adequate and inadequate fit, among both the PANAS-C-P and child version of the PANAS), we encourage clinicians and researchers to exercise some level of caution when interpreting the PANAS-C-P scale scores.

Another interesting finding of the present study is related to the orthogonality between NA and PA. According to the original tripartite model, NA and PA should not be related. Although the correlations of parent-reported PA and NA with (child-based) criterion measures of NA and PA, respectively, yielded nonsignificant coefficients (suggesting orthogonality between NA an PA), the observed correlation between the PANAS-C-P NA and PA scales as well as the *true correlation* as reported by EQS between the PANAS-C-P NA and PA scales were found to be significantly and moderately negative. The present findings are consistent with other studies that also found NA and PA to be moderately negatively correlated in youths (e.g., Chorpita & Daleiden, 2002; Laurent et al., 1999). The CFA analyses in the present study also supported a correlated model of NA and PA over an uncorrelated model of NA and PA. Of interest, a stronger (negative) correlation between NA and PA was found within our subsample of younger children compared with adolescents. Given that NA and PA have been found to be orthogonal in adults (e.g., Watson, Clark, & Tellegen, 1988) and given that we found NA and PA to be (more) negatively correlated in younger children and less negatively correlated in adolescents, it is possible that the relationship between NA and PA varies across child development and into adulthood and that it becomes increasingly more orthogonal with age. It is unclear, however, whether this observed pattern is due to the nature of the relationship between NA and PA changing over time or is due to maturing cognitive abilities allowing for more discrete constructs to be reported with age (and is therefore a measurement artifact). It is also notable that these analyses examining the relationship between NA and PA were based on a large sample size, which may have contributed to the significant (negative) correlations between NA and PA. More research is thus needed to better understand this relationship between NA and PA.

Although our study evidenced favorable psychometric properties for the PANAS-C-P scale scores, there were a number of limitations worth noting. First, the PANAS-C (child report) served as the primary NA and PA convergent validity criterion measure. Although the PANAS-C NA and PA (child version) scales have demonstrated strong psychometric properties (Laurent et al., 1999), using child-reported NA and PA scales to validate parent-reported NA and PA scale scores is likely to underestimate convergent validity indices because of cross-informant reporter variance known to attenuate parent–child correlations (e.g., Achenbach et al., 1987). To help reduce such informant variance, however, we used within-informant (i.e., parent-based) criterion measures whenever possible (i.e., the RCADS-P and the CBCL scales).

Another limitation of the present study is the lack of test–retest data to examine the temporal stability of the NA and PA scales to further estimate the reliability of the PANAS-C-P scale scores. Particularly given that PA and NA are temperament constructs believed to be relatively stable over time (Lonigan et al., 2003), test–retest findings supporting the temporal stability of these scales would have further supported the psychometric properties of the PANAS-C-P NA and PA scale scores. Another broader limitation of the present study is that the absence of a clinic-referred sample precluded our ability to specifically examine the incremental clinical utility afforded by the PANAS-C-P above the PANAS-C (child report). This is an important area of future research, particularly given that the ability of parents to report accurately on their children's internalizing states has been questioned (e.g., Kenny & Faust, 1997). Sourander, Helstela, and Helenius (1999), for instance, found that parents were poorer reporters of internalizing problems versus externalizing problems on corresponding parent and child questionnaires. Despite these concerns related to parent reports, it is also notable that parent-report measures have demonstrated agreement and utility when used in conjunction with youth self-report measures of internalizing psychopathology (Kendall, Cantwell, & Kazdin, 1989; Nauta et al., 2004). More research is thus needed to determine the (incremental) clinical utility afforded by the PANAS-C-P scales. The normative data provided in the present study should allow researchers to further examine these issues using clinic-referred samples in future studies.

Such future research is important given the potential research and clinical implications of the PANAS-C-P. For instance, given that PA scales have been shown to be highly useful in discriminating between anxiety and depression (e.g., Chorpita & Daleiden, 2002), the PANAS-C-P PA scale may provide the field with a parent-reported instrument to aid in these discriminations between anxiety and depression. The PANAS-C-P NA scale may also be particularly useful given the current direction in the field toward a dimensional classification system for assessing anxiety and mood disorders (Brown & Barlow, 2009). Barlow, Allen, and Choate

(2004) have also been developing a unified treatment for emotional disorders that targets NA in both anxious and depressed individuals. The PANAS-C-P NA scale may therefore also be used to assist in tracking therapeutic progress in the treatment of NA, as provided by parents' perspectives.

Overall, the PANAS-C-P (see Appendix for copy) appears to be useful for continued research related to anxiety, depression, and the tripartite model as well as applications in clinical settings. Having this additional parent-reported perspective of negative and positive affectivity may not only add to the recommended multi-informant system of assessing youth psychopathology, but it may also be of particular interest in research and clinical contexts given the roles that both NA and PA appear to play in the development and expression of anxiety and depression.

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Appendix

Positive and Negative Affect Schedule for Children–Parent Version

This scale has a number of words that describe different feelings and emotions. Read each item and then circle the best answer next to that word. Indicate to what extent your child has felt this way during the past few weeks. There are no right or wrong answers.

No.	Item	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1	Interested	1	2	3	4	5
2	Sad	1	2	3	4	5
3	Frightened	1	2	3	4	5
4	Excited	1	2	3	4	5
5	Ashamed	1	2	3	4	5
6	Upset	1	2	3	4	5
7	Happy	1	2	3	4	5
8	Strong	1	2	3	4	5
9	Nervous	1	2	3	4	5
10	Guilty	1	2	3	4	5
11	Energetic	1	2	3	4	5
12	Scared	1	2	3	4	5
13	Calm	1	2	3	4	5
14	Miserable	1	2	3	4	5
15	Jittery	1	2	3	4	5
16	Cheerful	1	2	3	4	5
17	Active	1	2	3	4	5
18	Proud	1	2	3	4	5
19	Afraid	1	2	3	4	5
20	Joyful	1	2	3	4	5
21	Lonely	1	2	3	4	5
22	Mad	1	2	3	4	5
23	Disgusted	1	2	3	4	5
24	Delighted	1	2	3	4	5
25	Blue	1	2	3	4	5
26	Gloomy	1	2	3	4	5
27	Lively	1	2	3	4	5

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Correction to Ebesutani et al. (2011)

In the article "A Psychometric Analysis of the Positive and Negative Affect Schedule for Children–Parent Version in a School Sample" by Chad Ebesutani, Kelsie Okamura, Charmaine Higa-McMillan, and Bruce F. Chorpita (*Psychological Assessment*, Vol. 23, No. 2, pp. 406–416), there was an error in the Appendix caption (pg. 416). The Appendix caption should have included the note, "Adapted from Watson, D. & Clark, L.A. (1999). The PANAS-X: Manual for the Positive and Negative Affect Schedule—Expanded form-Revised. Copyright 1994 by D. Watson and L. A. Clark; all rights reserved. PANAS-X adapted with permission."

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