# Observer, Youth, and Therapist Perspectives on the Alliance in Cognitive Behavioral Treatment for Youth Anxiety

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## Abstract

This study examined the score reliability and validity of observer- (Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale (TPOCS-A); Vanderbilt Therapeutic Alliance Scale Revised, Short Form (VTAS-R-SF)), therapist- (Therapeutic Alliance Scale for Children Therapist Version (TASC-T)), and youth-rated (Therapeutic Alliance Scale for Children Child Version (TASC-C)) alliance instruments. Youths ($N = 50$) aged 7–15 ($M$ age = 10.28 years, $SD = 1.84$; 88.0% Caucasian; 60.0% male) diagnosed with a principal anxiety disorder received manual-based cognitive-behavioral treatment. Four independent coders, two using the TPOCS-A and two using the VTAS-R-SF, rated two sessions per case from early (session 3) and late (sessions 12) treatment. Youth and therapists completed the TASC-C and TASC-T at the end session 3 and 12. Internal consistency of the alliance instruments was alpha > .80 and inter-rater reliability of the observer-rated instruments was ICC(2,2) > .75. The TPOCS-A, VTAS-R-SF, and TASC-T scores showed evidence of convergent validity. Conversely, the TASC-C scores failed to converge with the other instruments in a sample of children (age < 11), but did converge in a sample of adolescents (age 11). Findings supported the predictive validity of the TASC-T and TASC-C scores. However, whereas the direction of the alliance-outcome association for both observer-rated instruments was in the expected direction for children (negative), the correlations were in the opposite direction for adolescents (positive). Overall, findings support the score reliability of observer- and therapist-report alliance instruments, but questions are raised about the score validity for the observer- and youth-report alliance instruments.

## Keywords

Alliance; youth treatment; score validity; cognitive-behavioral treatment

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Alliance is typically conceptualized as the client's perception of both (a) a positive, supportive bond with the therapist and (b) therapist agreement with client-valued tasks and

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goals (Elvins & Green, 2008). In the adult treatment literature, the client-therapist alliance has been predictive of successful treatment outcome (Horvath, Del Re, Fluckiger, & Symonds, 2011). Unlike the research with adults, research on child and adolescent (hereafter called *youth* unless distinctions need to be made) treatment has not clarified whether the youth-therapist alliance is a consistent predictor of outcomes (McLeod, 2011).

Measurement limitations could be adding noise that influences estimates of the alliance-outcome association. Differences in the length and focus of alliance instruments raise concerns about the extent to which various instruments assess the same construct (Elvins & Green, 2008; McLeod, 2011). Moreover, developmental factors (e.g., ability for self-evaluation, ability to form internal attributions for behavior; Shirk & Saiz, 1992) may impact a youth's ability to accurately report on the alliance relationship. As such, there is a real need to evaluate the score reliability and validity of alliance instruments in youth treatment.

Few studies have evaluated the score reliability and validity of alliance instruments. In adult treatment, correlations between observer-, therapist-, and client-report have varied ($r$s −.33 to .82; Cecero, Fenton, Nich, Frankforter, & Carroll, 2001; Tichenor & Hill, 1989). Correlations among observer-rated instruments have evidenced the strongest relations ($r$s .34 to .82), and correlations between observer- and self-rated (client, therapist) instruments have been smallest ($r$s −.33 to .43). A more consistent picture has emerged in youth treatment. Correlations between both observer- and youth-report ($r$ = .48 and .53, Langer, McLeod, & Weisz, 2011; McLeod & Weisz, 2005) and therapist- and youth-report ($r$ = .31 and .50; Accurso, Hawley, & Garland, 2013; Kazdin, Whitley, & Marciano, 2006) instruments have been moderate to strong. Though these findings are promising, the convergent validity of observer-, therapist, and youth-report instruments have not been evaluated in the same study. Similarly, no study has evaluated the predictive validity of observer, therapist, and youth-report instruments. Given that the strength of the alliance-outcome association varies across different sources in youth treatment (McLeod, 2011), predictive validity is important to assess. This study addresses this gap by evaluating the convergent and predictive validity of scores from instruments that rely on these three sources.

When assessing the score convergent and predictive validity of alliance instruments in youth treatment it is important to determine if the validity coefficients vary across children and adolescent (Elvins & Green, 2008; McLeod, 2011). Some widely-used alliance instruments rely on self-reports from youth. Though such methods make sense, it is possible that developmental factors may limit a child's ability to report on the alliance (e.g., capacity for self-evaluation; Shirk & Saiz, 1992). In contrast, ratings by trained observers or therapists may be relatively free of such limitations (Shirk & Karver, 2003). Determining if the validity coefficients of observer-, therapist-, and youth-report alliance instruments vary across children and adolescents will help address this question. We thus evaluate the extent to which scores from child- (age < 11) and adolescent- (age    11) ratings overlap with scores from observer- and therapist-rated alliance instruments as well as whether scores from these sources are similarly related to outcomes.[1]

To our knowledge, this is the first study to evaluate the score reliability and validity of widely-used observer- (i.e., Therapy Process Observational Coding System for Child

Psychotherapy Alliance Scale (TPOCS-A); Vanderbilt Therapeutic Alliance Scale Revised – Short Form (VTAS-R-SF)), therapist- (i.e., Therapeutic Alliance Scale for Children-Therapist Version (TASC-T)), and youth-report (i.e., TASC-Child Version (TASC-C)) alliance instruments. Observer-rated alliance instruments are considered by some to be the gold standard for youth treatment (McLeod & Weisz, 2005; Shirk & Karver, 2003). However, no study to date in youth treatment has tested this hypothesis by evaluating the convergent validity of scores from observer-rated alliance instruments. We thus included two observer-rated alliance instruments. The TPOCS-A and VTAS-R-SF were used to code an early (session 3) and late (session 12) session for youth with anxiety receiving individual cognitive-behavioral therapy (ICBT). Youth and therapists reported on the alliance from the same sessions with the TASC-C and TASC-T.

## Method

### Participants

Treatment data were collected on youth participants from a randomized controlled trial (Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008) that compared the efficacy of ICBT, family-CBT, and an active control condition. Only ICBT was used in this study. Each youth participant met the following criteria: (a) an audible session from early (sessions 2–8) or late (sessions 9–16) treatment, and (b) received treatment from a single therapist (see Kendall et al., 2008 for details). The 50 youths that met criteria were aged 7–15 years ($M$ age = 10.28 years, $SD$ = 1.84; 60.0% male; 88.0% Caucasian, 8.0% African American, 2.0% Latino, 2.0% other) and were diagnosed with a principal anxiety disorder (52.0% generalized anxiety disorder, 58.0% separation anxiety disorder, 56.0% social phobia). Thirty-four percent of the families had an income below $60,000. ICBT was delivered by clinical psychology doctoral trainees and licensed clinical psychologists ($N$ = 16; 12.5% male; 81.25% Caucasian, 6.25% Latino, 6.25% Asian/Pacific Islander, 6.25% did not report). Therapists delivered *Coping Cat*, an ICBT program designed for youth anxiety disorders (Kendall & Hedtke, 2006), which emphasizes skill training (e.g., relaxation, problem-solving) and exposures. This study was IRB approved. Parents provided written informed consent, and youth gave written or verbal assent.

### Instruments

**Therapy Process Observational Coding System for Child Psychotherapy-Alliance scale** (TPOCS-A; McLeod & Weisz, 2005). This 9-item observer-rated instrument assesses the affective elements of the alliance and client participation in treatment. Coders rate each item on a 6-point scale ranging from 0 (*not at all*) to 5 (*a great deal*). TPOCS-A scores have demonstrated inter-rater reliability ranging from .48 to .80 ($M$ ICC = .67), internal consistency ranging from .91 to .95 ($M$ α = .92), convergent validity ranging from .48 to .53 (Fjermestad et al., 2012; McLeod & Weisz, 2005), and predictive validity (e.g., McLeod & Weisz, 2005).

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[1] We selected 11 as the bottom range for adolescents because by this age most boys have begun initial pubertal changes (e.g., enlargement of testes) and pubertal changes are well under way in most girls (e.g., breast buds, height spurt; see Arnett, 2011; Gallahue & Ozmun, 1995; Jaffe, 1998; Weisz & Hawley, 2002).

**Vanderbilt Therapeutic Alliance Scale Revised Short Form** (VTAS-R-SF; Shelef & Diamond, 2008). The VTAS-R-SF is a 5-item observer-rated alliance instrument that assesses the collaborative and task-oriented working relationship. Coders rate each item on a 6-point scale ranging from 0 (*not at all*) to 5 (*a great deal*). VTAS-R scores (Diamond, Liddle, Hogue, & Dakof, 1999) have demonstrated strong inter-rater agreement (ICC = .80–.93), internal consistency (α = .93–.98) and predictive validity (e.g., Diamond et al., 1999). VTAS-R-SF scores have shown strong internal consistency, high correlations with the full-length VTAS-R, and predictive validity for treatment outcomes (Shelef & Diamond, 2008).

**Therapeutic Alliance Scale for Children – Child and Therapist Versions** (TASC-C/T; Creed & Kendall, 2005). The 12-item TASC-C covers the emotional bond and agreement on therapeutic activities. The TASC-T assesses the therapist's view on the youth's perspective on these dimensions (e.g., This child liked spending time with you). Items are scored on a 4-point scale ranging from 1 (*not true at all*) to 4 (*very true*). TASC-C/T scores have demonstrated convergent validity (Accurso & Garland, 2015; Fjermestad et al., 2012), and predictive validity (e.g., Accurso et al., 2013; Hawley & Weisz, 2005).

**Child Behavior Checklist Anxiety Scale** (CBCL-A; Achenbach, 1991; Kendall et al., 2007). The CBCL is a 118-item checklist. Parents report whether their youth displays various behaviors by circling 0 (*not true*), 1 (*somewhat/sometimes*), or 2 (*very/often true*). Kendall et al. (2007) developed an Anxiety Scale, the CBCL-A, using 19 CBCL items. CBCL-A scores distinguish between youth with and without anxiety disorders, are sensitive to treatment, and have favorable retest reliability, inter-rater reliability, and internal consistency.

## Procedure for Alliance Instruments

The youth and therapist filled out the TASC at the end of each session. Research staff, other than the therapist, had the youth fill out the form and place it in a sealed box. Therapists and youth were naïve to all ratings (see Kendall et al., 2009). Four doctoral clinical students comprised the coding teams; two coded the TPOCS-A and two coded the VTAS-R-SF. Coders were trained over three months, followed by weekly meetings to prevent coder drift. Sessions were randomly assigned to coders, who were naïve to study hypotheses. Each session was double coded and the mean score was used to reduce measurement error. Session 3 (early treatment) and 12 (late treatment) were coded for each case. If a session was not available, it was replaced with a session from the same phase: early (session 2–8) or late (session 9–16). On average, each case had 16.08 (*SD* = 0.88) sessions. We used TPOCS-A, VTAS-R-SF, TASC-T, and TASC-C from the same session when available. When TASC-T and TASC-C were not available (*n* = 7) we used TASC-T and TASC-C ratings from the nearest session.

## Analytic Approach

We adopted a five-step approach to data analysis. First, we conducted sample bias and missing data analyses. Second, we investigated the internal consistency of scores on each alliance instrument and inter-rater reliability of the scores on the observer-rated instruments. Third, we assessed convergent validity by examining the magnitude of the relation among

scores on the four alliance instruments. Fourth, we evaluated the pattern of correlations among scores on the alliance instruments in the child (age < 11) and adolescent (age 11) samples. Correlations were interpreted following Rosenthal and Rosnow's (1984) guidelines: *r* is "small" if 0.10–0.23, "medium" if 0.24–0.36, and "large" if > 0.36. Fifth, we examined alliance-outcome associations across scores on the alliance instruments in the full, child, and adolescent samples. Because the youth were nested within therapists we estimated the ICCs for the alliance variables. The amount of variance was < 0.01% so we proceeded without accounting for nesting (Guo, 2005). Partial correlations were used to control for pre-treatment symptom scores and ensure the results were comparable to previous meta-analytic findings (i.e., r-type effect sizes; see McLeod, 2011).

## Results

### Preliminary analyses

Sample bias analyses did not find any significant differences between the participants in this study and those in the parent study. Rates of missing data were 6.0% (VTAS-R-SF) or less. These data were missing completely at random (Little's MCAR test $X^2 = 1.926$, $DF = 7$, $p = .964$). No differences were found between the scores on the alliance instruments between early and late treatment, so we averaged scores for each case to provide a stable alliance estimate (Crits-Christoph et al., 2011; Tichenor & Hill, 1989).

### Reliability

Table 1 reports descriptive data, internal consistency, and inter-rater reliability for scores on the four alliance instruments for the total, child ($n = 31$), and adolescent ($n = 19$) samples. All estimates of internal consistency were above .80. Inter-rater reliability for scores on the observer-rated instruments was calculated using the ICC(2,2) (Shrout & Fleiss, 1979). All ICCs were above .75, which is considered "excellent" reliability (Cicchetti, 1994).

### Convergent validity

The magnitude of the correlations among scores on three alliance instruments (TPOCS-A, VTAS-R-SF, TASC-T) were large as was the correlation between the TASC-T and TASC-C (see Table 2). However, the magnitude of the correlations between scores on the TASC-C and the two observer-rated instruments were small. We next evaluated correlations for the child and adolescent samples (see Table 3). The pattern for three instruments (TPOCS-A, VTAS-R-SF, TASC-T) was comparable across all samples. However, a different pattern for the TASC-C emerged across the child and adolescent samples. Specifically, the correlation between scores on the TASC-T and TASC-C was significantly higher in the adolescent sample than the child sample, $Z = 3.62$, $p < .001$; the correlation between the TASC-C and TPOCS-A was significantly higher in the adolescent sample than the child sample, $Z = 1.80$, $p = .036$; and the correlation between the TASC-C and the VTAS-R-SF was higher in the adolescent sample, but the difference was marginally significant, $Z = 1.56$, $p = .06$.

### Alliance-outcome association

Table 1 reports the magnitude of the partial correlations between scores on the alliance instruments (TPOCS-A, VTAS-R-SF, TASC-T, TASC-C) and the CBCL-A for the full,

child, and adolescent samples. A different pattern emerged for the child and adolescent samples, such that the direction of the partial correlations for the observer-rated instruments were reversed for the child (negative) and adolescent (positive) samples. In contrast, the alliance-outcome association for the youth- and therapist-report alliance instruments was in the expected direction (negative) for both the child and adolescent samples.

## Discussion

We evaluated the score reliability and validity of widely-used observer-, therapist-, and youth-report alliance instruments. All instruments had acceptable internal consistency, and the observer-rated instruments had excellent inter-rater reliability. Findings support the convergent validity of scores on the observer-rated and therapist-rated alliance instruments, but evidence for the convergent validity of the youth-report alliance instrument was mixed. Finally, our findings supported the predictive validity of the therapist- and youth-report instruments, but provided mixed support for observer-rated instruments.

Scores on the observer-, therapist-, and youth-rated alliance instruments all evidenced adequate reliability in a sample of youth receiving ICBT for anxiety. The internal consistency of scores on each instrument was adequate, and consistent with previous estimates of alliance instruments used in youth treatment (McLeod, 2011). Independent coders produced reliable ratings on the observer-rated alliance instruments that are consistent with previous studies using the TPOCS-A (McLeod & Weisz, 2005) and VTAS-R (Diamond et al., 1999). In all, our findings indicate that scores from these instruments display adequate reliability.

Our findings provide evidence supporting the convergent validity of scores on the TPOCS-A, VTAS-R-SR, and TASC-T. Scores on the instruments demonstrated strong inter-correlations, especially the correlation between the observer-rated alliance instruments ($r > .70$). Being the only study to evaluate the convergent validity of observer-rated alliance instrument in youth treatment, there is no previous point of comparison. However, the magnitude of these correlations is consistent with, or slightly higher than, correlations reported in adult treatment ($r$s .34 to .84; Cecero et al., 2001; Tichenor & Hill, 1989). The TASC-T evidenced strong correlations with both observer-rated instruments. No point of comparison exists in the youth field, but these correlations are stronger than those reported in the adult field ($r$s −.22 to .43; Cecero et al., 2001; Tichenor & Hill, 1989). It is possible that the stronger correlations between observer-rated instruments are due to common-method variance. That said, the TASC-T evidenced strong correlations with both observer-rated instruments. Thus, these findings support the convergent validity of the TPOCS-A, VTAS-R-SF, and TASC-T scores.

Our findings provided mixed evidence for the convergent validity of the TASC-C. In the total sample, the TASC-C evidenced a strong correlation with the TASC-T, but low correlations with the observer-rated instruments. When we divided the sample by age (i.e., children and adolescents) a different pattern emerged. The TASC-C evidenced low correlations with the observer- and therapist-report instruments with children, but strong correlations with adolescents. In contrast, the correlations among scores on the TPOCS-A,

VTAS-R-SF, and the TASC-T were of comparable size across the child and adolescent samples.

Research is needed to ascertain why the youth-report instrument did not converge with the other alliance instruments in the child sample. Our findings raise the possibility that the alliance may be more challenging to assess when young children are the reporter. Children may not understand what it means to form an "alliance" with an adult or their reporting may be impacted by factors related to cognitive and linguistic development (Shirk & Saiz, 1992). Alternatively, alliance may have a different factorial structure with children; some have suggested that affective elements may be more relevant for younger children than the collaborative aspects (Brown, Parker, McLeod, & Southam-Gerow, 2014). Future studies that evaluate the measurement and factorial invariance of the alliance construct across children and adolescents with widely-used child- and therapist-report instruments would be informative.

Our findings raise questions about children's report of the alliance. Because child-report did not converge with observer- and therapist-report, there appears to be little agreement on the alliance across these perspectives. It is possible that levels of cognitive development needed for a reasonable view of alliance are not fully in place for children, yet further work is needed to determine if there are ways to improve the measurement of the alliance in children and if this might lead to greater convergence across sources. Mixed–methods research could help clarify how best to gauge child perspectives on alliance. In the meantime, studies that assess the alliance in child samples may be best served by collecting multiple perspectives and reporting on the correspondence to determine if our findings generalize to other samples. Observer-rated instruments may help avoid some of the limitations of child-report instruments (McLeod & Weisz, 2005). However, observer-report cannot tap into the subjective and motivational aspects of the alliance (Elvins & Green, 2008). A multi-method measurement approach may thus be the best way to assess the alliance in youth treatment (Elvins & Green, 2008).

Our findings support the predictive validity of scores on the TASC-T and TASC-C. The magnitude of the correlation between these instruments and outcomes was comparable to those observed for self-report alliance instruments in a recent meta-analysis (McLeod, 2011). Conversely, our findings provided mixed support for the predictive validity for the TPOCS-A and VTAS-R-SF scores. Overall, our findings are consistent with a recent meta-analysis that found observer-rated alliance instruments evidenced a lower alliance-outcome association than youth-, parent-, and therapist-report alliance instruments (McLeod, 2011).

Our results may help explain the inconsistent alliance-outcome associations found in CBT for youth anxiety. To date, three studies have examined the alliance-outcome association in CBT for youth anxiety (Chiu et al., 2009; Liber et al., 2010; Marker, Comer, Abramova, & Kendall, 2013). Findings point to inconsistent effects with the strength of the association varying based on alliance source (observer, therapist, youth). Two studies using observer-rated alliance instruments failed to find a significant relation between the alliance and treatment outcome (Chiu et al., 2009; Liber et al., 2010) whereas the therapist-rated alliance predicted treatment outcomes in a third study (Marker et al., 2013). Overall, our results

suggest that observer-rated alliance instruments may not consistently predict outcomes in CBT for youth anxiety.

The present findings add to a growing literature that suggests the manner in which the alliance is assessed influences the strength of the alliance-outcome association (McLeod, 2011). To our knowledge, this is the first study to compare the strength of the alliance-outcome association across different alliance sources assessed at the same point in treatment. As such, there are no comparators in the adult or youth literature. That said, our findings are consistent with meta-analytic findings that suggest the observer-rated alliance produces the lowest alliance-outcome correlations (McLeod, 2011). The present findings thus raise concerns about the predictive validity of scores from observer-rated alliance instruments in youth treatment (especially children). In contrast, we found that youth- and therapist-report alliance instruments predicted outcomes across child and adolescent samples. This adds to studies that youth-report alliance predicts outcomes in child (e.g., Kazdin et al., 2006) and adolescent (e.g., Shirk, Gudmundsen, Kaplinski, & McMakin, 2008) samples. It thus appears that self-report instruments may produce more consistent relations with outcomes than observer-rated alliance instruments.

A few study limitations warrant mention. First, the alliance was only measured at two timepoints, which may not be enough to produce an accurate estimate (see Crits-Christoph et al., 2011). Second, the study focused on youth receiving ICBT for anxiety disorders in a research setting, so the findings may not generalize to other treatments, problem types, or settings. Third, the sample was relatively small, which may have impacted the accuracy of our findings. To address these limitations, future research will need to assess whether these findings generalize to larger, more demographically and clinically diverse samples.

Altogether, our findings indicate that observer- and therapist-report alliance instruments evidence promising reliability but mixed validity. Concerns are raised about the convergent validity of the youth-report instrument and predictive validity of observer-rated instruments, particularly across child and adolescent samples. This notion suggests that youth, therapists, and observers may see the alliance relationship in different, yet meaningful, ways.

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## Public Health Significance Statement

This study suggests that observers, therapists, and youth may view the quality of the youth-therapist alliance in different ways, especially across samples of children and adolescents. More research is needed to help improve the measurement of the alliance in youth psychosocial treatment.

**Table 1**

Descriptive Data, Alpha, Inter-rater Reliability, and Predictive Validity for Alliance Instruments

| TPOCS-A | M | SD | Min | Max | Alpha | ICC(2,2) | CBCL-A |
|---|---|---|---|---|---|---|---|
| Total Total | 3.45 | 0.41 | 1.89 | 4.19 | .84 | .87 | –.02 |
| Child sample | 3.49 | 0.36 | 2.47 | 4.00 | .80 | .88 | –.16 |
| Adolescent sample | 3.38 | 0.50 | 1.89 | 4.19 | .89 | .87 | .18 |
| VTAS-R-SF | | | | | | | |
| Total | 3.01 | 0.53 | 0.85 | 3.80 | .91 | .84 | .08 |
| Child sample | 3.05 | 0.47 | 1.95 | 3.60 | .90 | .77 | –.14 |
| Adolescent sample | 2.93 | 0.64 | 0.85 | 3.80 | .92 | .89 | .41 |
| TASC–Child | | | | | | | |
| Total | 42.03 | 7.62 | 17.00 | 48.00 | .94 | | –.25 |
| Child sample | 42.39 | 8.17 | 17.00 | 48.00 | .95 | | –.20 |
| Adolescent sample | 41.45 | 6.82 | 27.50 | 48.00 | .91 | | –.38 |
| TASC–Therapist | | | | | | | |
| Total | 39.29 | 7.17 | 17.00 | 48.00 | .97 | | –.22 |
| Child sample | 39.53 | 6.52 | 21.00 | 48.00 | .96 | | –.17 |
| Adolescent sample | 38.89 | 8.29 | 17.00 | 47.50 | .98 | | –.29 |

*Note.* ICC = intraclass correlation coefficient; TPOCS-A = The Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale; VTAS-R-SF = Vanderbilt Therapeutic Alliance Scale Revised – Short Form; TASC–Child = Therapeutic Alliance Scale for Children – Child Version; TASC–Therapist = Therapeutic Alliance Scale for Children – Therapist Version. Child sample aged < 11 years; Adolescent sample aged > 11 years; A negative semi-partial correlation between an alliance instrument and the CBCL-A reflects a relation which a stronger alliance was associated with a positive outcome (lower symptomatology).

**Table 2**

Intercorrelations of Alliance Instruments

|  | 1. | 2. | 3. | 4. |
|---|---|---|---|---|
| 1. TPOCS-Alliance |  | .782** | .233 | .665** |
| 2. VTAS-R-SF |  |  | .194 | .616** |
| 3. TASC-Child |  |  |  | .422** |
| 4. TASC-Therapist |  |  |  |  |

*Note*: N = 50. TPOCS-A = The Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale; VTAS-R-SF = Vanderbilt Therapeutic Alliance Scale Revised – Short Form; TASC-Child = Therapeutic Alliance Scale for Children – Child Version; TASC-Therapist = Therapeutic Alliance Scale for Children – Therapist Version.

*
p < .05

**
p < .01

**Table 3**

Intercorrelations of Alliance Instruments for Children and Adolescents

| | 1. | 2. | 3. | 4. |
|---|---|---|---|---|
| 1. TPOCS-Alliance | | .737** | .028 | .646** |
| 2. VTAS-R-SF | .817** | | .012 | .596** |
| 3. TASC-Child | .531* | .460* | | .155 |
| 4. TASC-Therapist | .687** | .635** | .859** | |

*Note*: Intercorrelations in the upper quadrant are for the child participants (n = 31) whereas the intercorrelations in the lower quadrant are for the adolescent participants (n = 19). TPOCS-A = The Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale; VTAS-R-SF = Vanderbilt Therapeutic Alliance Scale Revised – Short Form; TASC-Child = Therapeutic Alliance Scale for Children – Child Version; TASC-Therapist = Therapeutic Alliance Scale for Children – Therapist Version.

*
p < .05

**
p < .01