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Supplemental Materials for

Validation of group process assessment for youth who misuse substances: Group level coding

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Listing of Supplemental Material(s):

- Data Analysis (full description)

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Data Analysis

Group-level analyses were performed using SPSS 22.0.0. Internal consistencies (coefficient **α**) were obtained for Deviancy, Positive Involvement, Peer Rejection, and Counselor Praise scales. Items were examined for deletion to improve **α** values. Convergent validity (Carlson & Herdman, 2012) was assessed by correlating scale scores across adolescent, counselor, and observer versions, as well as the counselor and observer indices. Significant positive relationships between comparable scales (e.g., Positive involvement and Counselor praise) and significant negative relationships between disparate scales (e.g., Deviancy and Positive involvement) were expected. Additionally, scales (e.g., Deviancy) were expected to be moderately associated (**r** ≥ .30; Cohen, 1988) with similar constructs from other group-level measures (e.g., misbehaviors) to support criterion validity. Due to the number of correlations analyzed, **p** was set at .01 as Bonferroni corrections are known to overcorrect (Perneger, 1998).

Intra-class correlation coefficients (**ICC**s) were calculated (using 2-way random model, average measures, type = consistency) for double-coded group sessions to provide an estimate of inter-rater reliability (Cicchetti, 1994; Koo & Li, 2016). Analyses of Variance (ANOVA) were run for adolescent, counselor, and observer scales and indices to compare group treatments (CBT vs. SET); with no specific hypotheses established due to the exploratory nature of the analysis. However, because CBT was designed to be more interactive whereas SET was somewhat more didactic, it was expected that results would demonstrate a noticeable pattern (e.g., difference in Deviancy between treatments would be found consistently across youth, counselor, and observer versions). Group variables (average age of group members, average conduct disorder symptom count of members, and gender) posited to be related to group process (Dishion & Dodge, 2005; Gifford-Smith et al., 2005) were examined for inclusion as covariates in ANCOVA models. However, none met criteria for inclusion (i.e., **r** > .30; Harlow, 2005). Effect sizes are reported as η^2, where $\eta^2 < .06$ is small, η^2 between .06 and .13 is medium, and $\eta^2 > .13$ is considered large (Cohen, 1988).

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