

Validating the BEAS-T: Linking Parent-Child Interactions with Standardized Measures

Madeline Ofina, Deanna K. Boys, Michelle A. Culver, and Susan G. Timmer

UC Davis Children's Hospital: CAARE Diagnostic and Treatment Center



ABSTRACT

- The purpose of the study was to examine relationships between an observational measure of dyadic emotional availability, the BEAS-T, and standardized measures completed by mothers.
- The participants consisted of 163 mother-child dyads that were referred to UC Davis CAARE Center to participate in Parent-Child Interaction Therapy (PCIT) because of the child's externalizing behavior problems. Children ranged in age from 2 to 8 years.
- The BEAS-T consists of three child scales and four parent scales: child positive response, engagement, and controlling behavior; parent sensitivity, hostility, control, and passivity.
- Results of analyses showed significant correlations between parent scales on the BEAS-T and standardized measures of child behavior problems.

INTRODUCTION

- Reliable and accessible measures of the quality of the parent-child relationship facilitate assessment of the nature of the dysfunction and the effectiveness of interventions for children.
- Timmer and colleagues developed the Brief Emotional Ability Screener-Trianoalog (BEAS-T; Timmer et al., 2009) for use in a clinical observational assessment using a three-part parent-child interaction analog, to measure the quality of parent and child's connection to one another in play.
- An earlier study examined the face validity of the BEAS-T and found strong, significant correlations between related scales of the Emotional Availability Scales (EAS, 3rd Ed., Biringen, 2000) and the BEAS-T (West et al., 2009). Scores on the EAS have been found to correlate with Adult Attachment Interview Scales (Biringen, 2000) and attachment categories measured by the Strange Situation (Easterbrooks et al., 2000).
- Parent Child Interaction Therapy assesses progress through written measures such as the CBCL, ECBI, and PSI.
- In order to be clinically useful, it is important to understand the relationship of the BEAS-T with standardized measures completed by the parent.
- The Child Behavior Checklist (CBCL; Achenbach, 2001) and the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) measure child externalizing and internalizing behaviors and whether these behaviors are a problem for the parent.
- The Parenting Stress Inventory (PSI; Abidin, 1995) measures parenting stress in the parent-child relationship.
- Effective clinical work depends on understanding the meanings of assessments. Hence, it is important to understand the relationships between observational assessments and standardized assessments of symptom severity.

PURPOSE OF STUDY

The purpose of this study is to extend previous research and investigate the relationships between BEAS-T scores and measures of child behavior problems and parenting stress.

METHODS

PARTICIPANTS

- Participants were 163 biological mother-child dyads who were referred to UC Davis CAARE Center to participate in PCIT.
- Children were 2 to 8 years of age with a mean age of 4.6 and 60% male. The sample was ethnically diverse with 63% Caucasian, 14% African American, 17% Latino, and 6% were other ethnicities.
- Mother-child dyads were videotaped as they played for 15 minutes in three semi-structured play situations that varied in the degree of control the parent was asked to wield in the interaction.

CODER TRAINING

- Coder training consisted of coding over 30 tapes (~30 hrs) until researchers met 80% inter-rater reliability.
- Demographic information was obtained through caregiver's reports on a questionnaire administered prior to treatment.

BEAS-T CONTENT

- The BEAS-T consists of seven scales (4 parent scales and 3 child scales). Each overall scale is comprised of three subscales, which are coded from 1-3 (1= non-optimal; 3 = optimal), with a total score for each scale ranging from 3-9. Higher scores are indicative of more optimal emotional availability in each scale.

Parent Scales [and Subscales]:

- Parent Sensitivity [Affect, Response Quality, Engagement]
- Parent Hostility [Covert, Overt, Physical Overt Hostility]
- Control [Verbal Control, Physical Control, Control/Directiveness]
- Passivity [Play, Verbal, Authority]

Child Scales [and Subscales]:

- Positive Responsiveness [Affect, Balance in Interaction, Responsiveness]
- Engagement [Engagement, Balance of Attention, Behavior]
- Controlling Behavior [Parentified/Caregiving Role Reversal, Punitive Role Reversal, General Bossiness]

CODING PROCEDURE

The BEAS-T was coded during only a single viewing of the parent-child interaction by only one coder.

PAPER MEASURES

- Mother-child dyads were assessed before entering PCIT treatment.
- Children's behaviors were rated using the Child Behavior Checklist (CBCL; Achenbach, 2001).
- Parents' defensive responding was measured by the Defensive Responding Scale of the Parenting Stress Index (Abidin, 1995).
- Children's behavior problems were measured by the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999). The ECBI is a 36-item inventory of common child behavior problems designed for 2 – 17 year olds.

RESULTS

Table 1: Correlation of BEAS-T and PSI Scale

BEAS-T	PSI			
	Parent Distress	Parent-Child Dysf Relationship	Difficult Child	Defensive Responding
Maternal Scales				
Sensitivity	-0.065	-0.163	-0.075	-0.097
Hostility	-0.038	-0.12	-0.199*	-0.075
Intrusiveness	-0.177*	-0.14	-0.194*	-0.179*
Passivity	-0.031	-0.028	0.081	-0.045
Child Scales				
Responsiveness	-0.144	-0.081	-0.155	-0.137
Engagement	-0.088	-0.034	-0.092	-0.095
Controlling Behavior	0.056	0.175*	0.172*	0.046

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 2: Correlation of BEAS-T and CBCL Scale

BEAS-T	CBCL		
	Internalizing	Externalizing	Total
Maternal Scales			
Sensitivity	0.083	-0.064	-0.002
Hostility	-0.04	-0.251**	-0.167*
Intrusiveness	-0.074	-0.117	-0.095
Passivity	0.202*	0.093	0.135
Child Scales			
Responsiveness	-0.066	-0.087	-0.055
Engagement	0.002	0.00	0.028
Controlling Behavior	0.172*	0.048	0.092

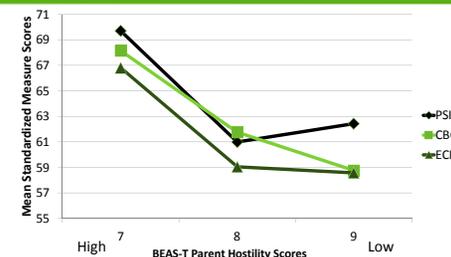
** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 3: Correlation of BEAS-T and ECBI Scale

BEAS-T	ECBI	
	Intensity	Problem
Maternal Scales		
Sensitivity	-0.128	-0.183*
Hostility	-0.191*	-0.258**
Intrusiveness	-0.071	-0.1
Passivity	-0.013	-0.072
Child Scales		
Responsiveness	-0.145	-0.186*
Engagement	-0.086	-0.155
Controlling Behavior	-0.074	-0.115

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Graph 1: ECBI, CBCL, and PSI T-scores for mothers High, Medium, and Low in BEAS-T Parent Hostility



Graph continued

ECBI, CBCL, and PSI means scores are presented for mothers scoring high (mean score of 7 or less), medium (8 – 8.99), and low (9) in Parent Hostility.

SUMMARY OF RESULTS

- Results showed that the more behavior problems parents saw in their children (as measured by the ECBI, PSI, and CBCL), the more hostile the parents were towards their children during structured interactions, as measured by the BEAS-T.
- The more mothers viewed their children's behaviors as problems (ECBI), the less sensitive and more hostile they were likely to be during the observational assessment.
- Increases in ratings of children's behaviors as problems (ECBI) was associated with decreases in responsiveness in children during the observational assessment.
- Results showed that greater levels of observed controlling behavior in children were associated with more positive parent assessments on the Parent-Child Dysfunctional Relationship and the Difficult Child scale of the PSI, and lower Internalizing behavior problems on the CBCL.

DISCUSSION

- The purpose of this study is to investigate the relationships between scales on the BEAS-T and measures of child behavior and parenting stress. Using the prior West et al. (2009) study, we hypothesized that the BEAS-T would show significant correlations with standardized psychological measures.
- Interestingly, standardized measures of child behavior problems and parenting stress showed greater associations with mothers' observed behavior toward their children than children's behavior. These results suggest that standardized assessments may reflect as much about the parents' attitude toward their children as it does about the severity of their children's behavior.
- By correlating the BEAS-T results with standardized psychological measures, the findings provide a broader understanding of the meaning of results of standardized measures. Our findings suggest that in a clinical setting, the BEAS-T can assess in-depth relationships in short time frame when correlated with standardized psychological measures.



UC DAVIS
CHILDREN'S HOSPITAL