The Consultative Alliance in Infant and Early Childhood Mental Health Consultation: Examining a New Measure

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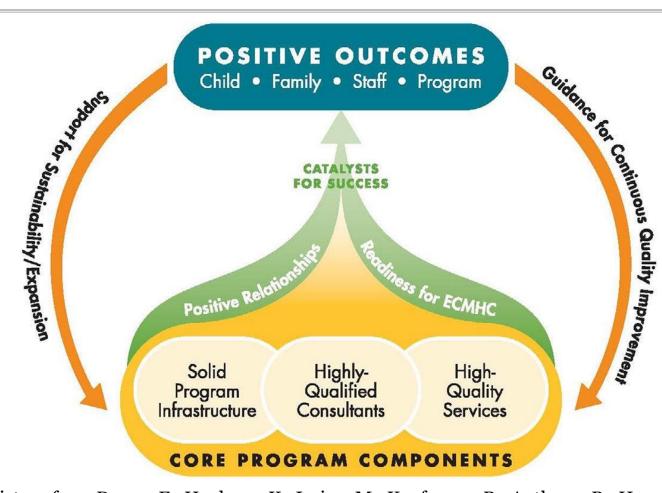
Background

Infant and Early Childhood Mental Health Consultation (IECMHC)

- Indirect intervention in which mental health consultants (MHCs) partner with early care and education (ECE) organizations, teachers, and families to build capacity for supporting young children's social-emotional development
- Research indicates IECMHC improves teacher-student relationships, decreases student expulsions, reduces challenging classroom behaviors, and improves teacher self-efficacy (e.g., Gilliam et al., 2016; Hepburn et al., 2013; Perry et al., 2008)
- The consultative alliance (i.e., the supportive relationship between an MHC and a teacher) is a proposed mechanism of change in IECMHC (Davis et al., 2020)
- Currently, few studies examine the construct of teacher-MHC consultative alliance, in part, because there are limited measures that assess this alliance that have been evaluated psychometrically in an IECMHC context

The Current Study

Aim: Provide initial psychometric support for a measure of consultative alliance for use within an IECMHC framework

- Hypothesis 1: Reliability indices, including internal consistency and inter-rater, will be acceptable for the ECCAQ
- Hypothesis 2: Concurrent validity will be evinced through the ECCAQ being positively associated with teacher openness, positive classroom climate, and close teacher-student relationships and negatively associated with negative classroom climate and teacher-student conflict

Picture from Duran, F., Hepburn, K., Irvine, M., Kaufmann, R., Anthony, B., Horen, N., & Perry, D. (2009). *What works? A study of effective early childhood mental health consultation programs*. Washington: DC: Georgetown University Center for Child and Human Development.

Participants and Methods

A new measure of the teacher-MHC consultative alliance, the Early Childhood Consultative Alliance Questionnaire (ECCAQ; Mathis et al., 2019), was developed grounded in theory on the salience of consultant-teacher relationships (Davis, 2020; Johnston & Brinamen, 2006, 2012)

- Teachers ($N = 48$) and MHCs ($N = 2$) in 27 classrooms at 8 preschools completed the ECCAQ-T and ECCAQ-C, respectively, mid-school year after a relationship was established
  - ECCAQ-T = 16-items on a scale from 1 = *Strongly Disagree* to 5 = *Strongly Agree*
  - ECCAQ-C = 17-items, same scale as ECCAQ-T
  - Example items: *The teacher [MHC] and I work well together*; *The teacher [MHC] and I can have difficult conversations if needed*
- MHCs also completed a 3-item measure of teachers' openness to consultation (1= *Almost Never* to 5 = *Almost Always*) and the Preschool Mental Health Climate Scale (PMHCS; Gilliam, 2008) (1 = *Never True* to 5 = *Consistently or completely true*), an observational measure of the social-emotional (i.e., mental health) climate in the classroom
- Teachers also completed the Student Teacher Relationship Scale for their classroom (STRS-classroom; Whitaker, Dearth-Wesley & Gooze, 2015) (1 = *Definitely does not apply* to 5 = *Definitely applies*)
- Composite mean scores were created for all variables and subscales. Variables were aggregated and analyzed at the level of the classroom.

Table 1. Teacher-Report

Item	Mean (SD), Min-Max
1.	4.61(.61), 3-5
2.	4.10(.69), 3-5
3.	4.48(.70), 3-5
4.	4.50(.74), 2-5
5.	4.35(1.03), 1-5*
6.	4.68(.57), 3-5
7.	4.37(.81), 2-5
8.	4.32(.79), 2-5
9.	4.37(.83), 2-5
10.	4.74(.51), 3-5
11.	4.60(.59), 3-5
12.	4.44(.82), 1-5
13.	4.48(.90), 1-5*
14.	4.18(.82), 3-5
15.	4.65(.58), 3-5
16.	4.32(.81), 2-5
-	-
Total	**4.45(.54), 3.00-5.00**

Note: *= reverse coded

Table 2. MHC-Report

Item	Mean (SD), Min-Max
1.	4.35(.54), 3-5
2.	3.62(.55), 2-4
3.	4.18(.64), 2-5
4.	3.86(.63), 2-5
5.	3.95(.65), 2-5*
6.	4.34(.54), 3-5
7.	3.17(.98), 2-4*
8.	3.83(.58), 2-5
9.	4.06(.46), 3-5*
10.	3.74(.60), 2-5
11.	3.83(.63), 2-5*
12.	3.20(.99), 1-5
13.	3.78(.65), 2-5
14.	4.06(.53), 2-5*
15.	3.82(.46), 2-5
16.	4.09(.34), 3-5
17.	4.17(.42), 3-5*
Total	**3.89(.38), 2.88-4.65**

Note: *= reverse coded

Table 3.

Reliability	Statistic
ICC (Teacher-Report)	.94
ICC (MHC-Report)	.89
Inter-rater	.33, ns

Note: Internal consistency assessed with Cronbach's alpha and inter-rater reliability assessed with a bivariate correlation; ns= not significant

Table 4. Bivariate Correlations Between the ECCAQ and Concurrent Measures

	Openness	PMHCS-Positive	PMHCS-Negative	STRS-Closeness	STRS-Conflict
ECCAQ-T	.57**	.29	-.28	.54**	-.30
ECCAQ-C	.67***	.18	-.23	-.04	.02

Note. PMHCS= Preschool Mental Health Climate Scale-MHC-reported, STRS=Student Teacher Relationships Scale-Teacher-reported; * = p > .05, ** = p > .01, *** = p > .001

Results

- Tables 1 & 2 provide descriptive statistics for all items on the ECCAQ
- Table 3 provides Cronbach's alpha statistics for teacher- and MHC-reported consultative alliance and the correlation between teacher- and MHC-reported consultative alliance
  - Alphas were both in the acceptable range (< .70; Nunnally & Bernstein, 1994)
  - The correlation between informant reports was not significant
- Finally, Table 4 provides correlations between the ECCAQ-T and ECCAQ-C and teacher openness, PMHCS subscales, and STRS subscales
  - Both versions of the ECCAQ were significantly correlated with teacher openness and the ECCAQ-T was also significantly correlated with the closeness subscale for the STRS

Discussion and Future Directions

- This study provides some preliminary support for the use of the ECCAQ, a measure of consultative alliance, in a IECMHC framework
  - The ECCAQ evinced good internal consistency
  - Partial support for concurrent validity of the ECCAQ was found, including positive relations between teacher openness and ECCAQ-T/ECCAQ-C and between ECCAQ-T and STRS-Closeness
- Contrary to hypotheses the PMHCS was not correlated with the ECCAQ nor was the STRS correlated with the ECCAQ-C.
  - Possible explanations include this study's small sample, shared method variance between the STRS and ECCAQ-T, and possible distinctiveness between teacher and MHC perspectives
- Replication of results, particularly with a larger sample, is warranted to further establish this measure's psychometric properties
- Future studies should also examine this measure's underlying factor structure, which the current study was underpowered to explore
- Finally, future studies should use psychometrically sound measures of consultative alliance to examine how the consultative alliance operates within an IECMHC context, including examining the consultative alliance as a mediator of treatment outcomes (Davis et al., 2020)