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# Expressed Emotion, Mental Health, and Functioning in Families of Children with and without Asthma

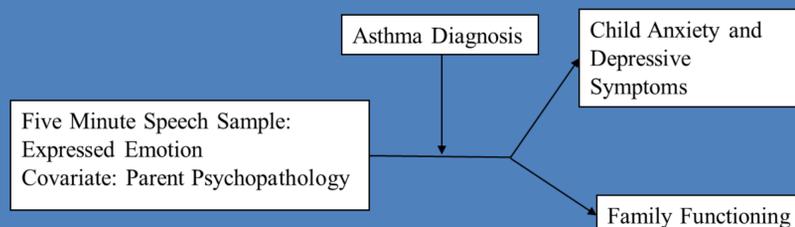
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The Families of Richmond, VA Study  
Dedicated to understanding the children & families in our community

## Introduction

- Expressed emotion (EE), the affective attitudes and behaviors of one toward another, can affect caregivers' behaviors toward their child.
- High expressed emotion may be indicative of critical interactions between a parent and child, which has a negative impact on child arousal and mental and physical symptoms.
- Research examining associations between EE and child/family outcomes is mixed; these associations may be influenced by other factors such as the presence of a chronic disease or parent mental health.
- In this study of families living in an urban area, we examined associations between EE and child outcomes (anxiety/depressive symptoms) and family functioning, with parent anxiety as a covariate.
- We evaluated child asthma status as a moderator as the presence of a chronic illness may strengthen the association between EE and child/family outcomes.



## Sample and Procedures

- 96 children (mean ± SD age=8.83 ± 2.03 years, 48.9% female, 92.6% African American; 47 with asthma) and their parents (81.3% annual household income < \$25,000)
- Parents and children completed an observational study which included interviews and questionnaires (see Table below)
- Parents completed the Five Minute Speech Sample (FMSS), a five-minute open-ended interview that was coded to assess caregiver expressed emotion
  - Parents were asked to speak about their child for 5 minutes without interruption
- Parent and child were interviewed separately during the research session

Constructs of Interest	Respondent	Measures Used
Expressed Emotion (IV)	Caregiver	Five Minute Speech Sample (FMSS) (Magana et al., 1986)
Child Anxiety Symptoms (DV)	Caregiver	Multidimensional Anxiety Scale for Children (MASC) (March, Parker, Sullivan, Stallings, & Conners, 1997)
Child Depressive Symptoms (DV)	Caregiver	Children's Depressive symptoms Inventory (CDI) (Kovacs, 1992)
Family Functioning (DV)	Caregiver	Self-Report Family Inventory (SFI) (Beavers & Hampson, 2000)
Asthma Control (DV)	Child and Caregiver	Childhood Asthma Control Test (cACT) (Liu et al., 2007) or Asthma Control Test (ACT) (Nathan et al., 2004)

## FMSS Coding

- FMSS coding manual used (Magana et al., 1986); coders met weekly to discuss disagreements in ratings and come to a consensus.
- Moderate agreement between the two coders on overall expressed emotion ( $\kappa = .76$ ), emotional over-involvement (EOI) ( $\kappa = .83$ ), and criticism (Crit) ( $\kappa = .68$ )
- EOI and Crit are subscales of overall expressed emotion. EOI is a measure of a caregiver's over-protectiveness, self-sacrifice, excessive use of praise or blame, and statements of attitude. Criticism is a measure of a caregiver's hostility and critical remarks towards their child.

Coding Category	Example from speech samples
Initial Statement (+, 0, -)	"Um, (child) is very bright, independent... a little defiant at times." (0)
Relationship (+, 0, -)	"... we bump heads a lot because he's head strong." (-)
Criticism (#)	"she's short and she's picky. Lord, she's evil..."
Dissatisfaction (P/A)	"that bugs me when she does that." (P)
Statement of Attitude (#)	"I love her so..., I love her very much."
Self-Sacrificing Overprotective (P/A)	"I keep my kids close to me. They have an outside life but I rather have my kids close and not out of sight, I don't let them no further than that." (P)
Excessive Detail about the Past (P/A)	"When (child) was born, she was an active baby and to this day she's still an active baby... I didn't know I was pregnant. My fiancé called me, he said, "babe I think you're pregnant." I said "no I'm not, what are you talking about," then he said "yes you are" ... and went to the doctor
Positive Remark (#)	"I think (child) is a very great kid." "He's really good at school, amazing"

## Results

- Regression analyses were conducted using PROCESS macro version 3.1. Asthma status (yes/no) was examined as a moderator.

Results of multiple regression analyses and moderation analyses by outcome variables

Outcome Variable Predictor Variable	t	p	$\beta$	F	df1, df2	p	adj. R <sup>2</sup>
<b>MASC</b>							
Overall Expressed Emotion (EE)	2.77	.007	.30	7.67	1,70	.007	.19
Emotional Over-Involvement (EOI)	2.36	.02	.26	5.58	1,70	.02	.17
Criticism (Crit)	1.13	.26	.13	1.28	1,70	.26	.12
EE x Asthma Status	-.30	.77	-.09	1.68	1,68	.77	-
EOI x Asthma Status	.52	.60	.27	1.68	1,68	.60	-
Crit x Asthma Status	-1.63	.11	-.265	1.68	1,68	.11	-
<b>ACT</b>							
Overall Expressed Emotion (EE)	1.25	.22	.20	1.56	1,39	.22	.01
Emotional Over-Involvement (EOI)	.64	.53	.10	.41	1,39	.53	-.02
Criticism (Crit)	2.08	.04	.32	4.33	1,39	.04	.08

Note: **bolded items** are statistically significant, outcome variables displayed above included at least one statistically significant analysis

- EE:** Expressed emotion was associated with child anxiety symptoms, even when controlling for parent anxiety symptoms ( $F(1,70) = 7.67, p = .007, \text{adj. } R^2 = .19$ ). No other associations were found; **EOI:** Emotional over-involvement was associated with child anxiety symptoms, even when controlling for parent anxiety symptoms ( $F(1,70) = 5.58, p = .02, \text{adj. } R^2 = .17$ ). No other associations were found; **Crit:** No associations were found.
- Asthma status did not moderate any associations
- Only criticism was positively associated with asthma control ( $F(1,39) = 4.33, p = .04, \text{adj. } R^2 = .08$ ).

## Discussion

- Expressed emotion and emotional over-involvement were associated with child anxiety symptoms above and beyond parent anxiety symptoms
  - Parental beliefs about their child exhibited through expressed emotion may contribute to the development of psychopathology
- Asthma status did not moderate any associations of expressed emotion with child mental health and family functioning
  - Plausible that the association between expressed emotion and anxiety is strong, regardless of asthma status
- More criticism was associated with better asthma control scores
  - Possible that parents scoring high on parental criticism tend to take an active role in managing their own life problems and difficulties (Hooley, 2007), which may extend to taking care of their child's difficulties
  - High levels of criticism or emotional over-involvement may be more culturally accepted in some groups than in others

## Future Directions and Clinical Implications

- Intervention efforts might consider using parent speech samples as a way to identify children at risk for experiencing anxiety symptoms.
- Future research should culturally adapt the original coding manual (Magana et al., 1986) with consideration of an individual's cultural beliefs and experiences. It is possible that culturally adapting the FMSS may lead to a better understanding of the construct among low-income, African American families
- Criticism among African American caregivers of children with asthma may serve a protective role against worsening asthma symptoms.
- Future research is needed to confirm findings and assess how critical remarks made by low income, African American caregivers of children with asthma might be associated with asthma control in a larger sample.

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