

## DEVELOPMENT OF THE FAMILY EMOTIONAL INVOLVEMENT AND CRITICISM SCALE (FEICS): A SELF-REPORT SCALE TO MEASURE EXPRESSED EMOTION

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*This paper reports on the development, reliability, and validity of a self-report scale to assess from the recipient's perspective two factors derived from Expressed Emotion (EE) theory. The Family Emotional Involvement and Criticism Scale (FEICS) has two subscales: Perceived Criticism (PC) and intensity of Emotional Involvement (EI). These two factors are analogous to Critical Comments and Emotional Overinvolvement, the two main factors of EE that are assessed through the Camberwell Family Interview, the original direct observation measure of EE. FEICS was completed by 83 respondents who were a random sample of patients over 40 years of age receiving care at a Family Medicine Center. Cronbach's alpha was .82 for the PC subscale and .74 for the EI subscale. Confirmatory factor analysis showed that each item loaded on its proposed factor (all at  $\geq .50$ ) and not with the other factor (all at  $\leq .15$ ). The subscales exhibited expected correlations and partial correlations with FACES III subscales, ISEL subscales, the SCL-90 depression and anxiety subscales, and demographic variables. We conclude that the FEICS is a reliable instrument with preliminary evidence of its construct and criterion validity.*

Expressed Emotion (EE) has emerged as an important variable in studies of families and psychopathology (Vaughn & Leff, 1985). Yet its utility in almost all other areas of family research has been limited because the measurement of expressed emotion is a time-consuming process requiring skilled observers. EE is measured by coding the audiotapes of a 45-minute to 2-hour semistructured interview with significant family members. Even when the interview is shortened, for example, the 5-minute speech sample (Gift, Cole, & Wynne, 1985; Magana et al., 1986), it still requires considerable time to code the audiotapes. Since EE is an important variable, we wanted to include

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it in our research on families and health. However, EE requires a large investment of time and training to use. We decided to develop a self-report scale based on EE theory to assess from the recipient's perspective factors analogous to the two most important factors in EE (critical comments and emotional overinvolvement).

The concept of EE was developed in England in studies of the role of the family environment in schizophrenia. Brown and his colleagues found that the patients who were discharged to critical and overinvolved families were the most likely to relapse (Brown, Monck, Carstairs, & Wing, 1962). They subsequently introduced the concept of EE (Brown, Birley, & Wing, 1972) and developed a semistructured interview, the Camberwell Family Interview (CFI), to gather the data. EE has two major factors: Critical Comments (CC) and Emotional Overinvolvement (EOI). CC is scored by counting the number of critical comments made during the CFI interview. EOI is scored by rating the family on a 1 to 5 scale based on specific behavioral markers. Brown et al. (1972) determined the best cutoff score for each scale (the score that best differentiated relapsers from nonrelapsers) to assign an overall high or low EE score. If family members were high on either factor, they were designated high EE. They found that a cutoff of seven or more critical comments or a rating of 4 or more on EOI differentiated relapsing from nonrelapsing patients. Combining these scores to compute high versus low EE, they found that 58% of the high EE patients relapsed in 9 months, and only 16% of low EE patients relapsed in 9 months. Patients with high EE relatives were almost 3.5 times more likely to relapse than patients with low EE relatives. Over 10 studies from different countries and cultures have replicated Brown et al.'s early findings (see Kuipers & Bebbington, 1988, for a review). These and other studies have shown that EE, as measured by CFI, is a highly predictive and valid measure of the family environment.

Treatments have been designed to change family EE status (Leff, Kuipers, Berkowitz, Eberlein-Vries, & Sturgeon, 1982; Hogarty et al., 1986). Both studies showed that lowering EE status in the family resulted in a significantly lower relapse rate. In those families that changed from high to low EE status, there were no relapses at 1-year follow-up. Additional studies have tried to explain the mechanism of EE's influence on clinical course. Studies have shown that EE is related to family interactive style (Doane, West, Goldstein, Rodnick, & Jones, 1981; Miklowitz, Goldstein, Falloon, & Doane, 1984). Families high in EE are more critical and intrusive in face-to-face interaction. High EE families are more emotionally enmeshed (Cook, Strachan, Goldstein, & Miklowitz, 1989), meaning that in high EE families, the affective behavior of one family member is highly dependent on the affective behavior of other family members.

EE is not specific to schizophrenia; it has been shown to predict the clinical course of several other physical and mental disorders, including major depression (Leff & Vaughn, 1981; Hooley, Orley, & Teasdale, 1986; Hooley, 1986; Hooley & Teasdale, 1989), bipolar disorder (Miklowitz, Goldstein, Nuechterlein, Snyder, & Mintz, 1988; Priebe, Wildgrube, & Muller-Oerlinghausen, 1989), depression of dementia caregivers (Gilhooly & Whittich, 1989), obesity (Fischmann-Havstad & Marston, 1984), and mental retardation (Greedharry, 1987). Studies which look at the role of EE in epilepsy, anorexia nervosa, Parkinson's disease, inflammatory bowel disease, and sexual abuse are underway (reported in Vaughn, 1989).

Leff and Vaughn (1981), using only the CC scores, found that two or more critical comments best differentiated relapsing from nonrelapsing depressed patients. This study implies that depressed patients are even more vulnerable to negative effects of critical comments than schizophrenic patients. Possibly this is because it was usually the spouse of the depressed patient who was interviewed. High EE from the spouse of a depressed patient may indicate that the marriage is in jeopardy. This may be a more threatening and depression-inducing environment than a low EE marriage.

Hooley and Teasdale (1989) examined criticism, marital adjustment, and depression. They assessed criticism in two different ways: (a) through the CFI and CC coding and (b) through a single self-report question on perceived criticism (PC) to the depressed patient, "How critical is your spouse of you?" They found that their PC variable accounted for more variance in relapse outcome than either EE or marital adjustment together. It was this result that prompted us to develop a scale to assess the elements of Expressed Emotion from the recipient's perspective. This scale is based on EE theory, but it uses a different methodology (self-report versus coding of interviews) to assess criticism and emotional involvement.

## METHODS

### *Development of the FEICS*

One self-report EE scale, the Level of Expressed Emotion Scale (LEE Scale) already exists in the literature (Cole & Kazarian, 1988; Kazarian, Malla, Cole, & Baker, 1990). The Lee scale is a 60-item scale with true/false responses. It is completed by a schizophrenic patient to report on his/her perception of family affective environment. The authors report acceptable internal reliability; however, they did not report correlations of the scale and its subscales with criterion measures. Docherty and Serper (1990) developed a scale to assess expressed emotion from the relatives' perspective. Their scale has two factors: Critical Comments and Emotional Overinvolvement. They report good internal reliability and concurrent validity with the CFI interview.

We decided to develop our own scale because we felt the LEE scale was too long for survey research and too specific to schizophrenia. We chose not to use the Docherty and Serper (1990) scale because it assesses the relative's attitude not the recipient's attitude. We wanted to assess the factors of Expressed Emotion from the recipient's perspective. Neither of these scales showed validity through correlations with important outcome variables.

The terms "expressed emotion," "critical comments," and "emotional overinvolvement" were developed in previous studies, and we believed that they are less than optimal to describe the concepts involved. Expressed Emotion implies a much broader range of emotion than is assessed by the CFI, and Emotional Overinvolvement implies a negative value judgment about behavior we do not wish to prejudge as negative. We decided to call our scale the Family Emotional Involvement and Criticism Scale (FEICS). We developed our scale to contain two factors analogous to the components of EE and chose to call them Perceived Criticism (PC) and intensity of Emotional Involvement (EI).

We began by developing a list of 40 items for these two univariate linear scales, 20 items each for PC and for EI. The authors individually suggested items for inclusion based on a review of the literature, the items in the LEE scale, and clinical experience. We wrote the items in as extreme a form as possible; we wanted the PC scale to be clearly negative and the EI scale to capture clearly high levels of emotional involvement. We took this approach to avoid the problems encountered by the Family Adaptability and Cohesion Scale (FACES). FACES was designed to be curvilinear, that is, mid-range scores would be healthy and very high or very low scores would be dysfunctional. Yet most published research on FACES suggests that it is linear, so that higher cohesion and adaptability is better (Perosa & Perosa, 1990; Olson et al., 1983; Green, Kolvezon, & Vosler, 1985; Miller, Bishop, Epstein, & Keitner, 1985). We wanted to measure intense emotional involvement, which the cohesion scale of FACES does not consistently do. Therefore, we set out to create linear scales of PC and EI that clearly measured extreme aspects of family life. Three of the authors (CS, JH, & SM), all family therapists, reviewed the 40 items and selected 23 distinct questions that met the agreed criteria.

These questions include 9 items for the PC subscale and 14 items for the EI subscale (see Appendix).

### *Sample*

This instrument was developed as part of a study to examine the relationship of family variables to cardiovascular health variables. Therefore, subject inclusion criteria are related to cardiovascular health factors and not to family factors. We also wanted to choose subjects who are regular users of our medical center to increase the likelihood of their being available for follow-up. The population base was comprised of patients receiving primary medical care at the University of Rochester Family Medicine Center. We derived the sample from a database that we use to monitor cardiovascular health. Patients were eligible for inclusion in the sample if they had a cholesterol value in the database, had made at least two visits in the 18 months before July 1990, and were at least 40 years of age. In households where two or more eligible patients lived, we randomly selected one household member. These criteria identified 1745 patients. We selected a 10% random sample (182 patients) for this pilot study. To make the results as generalizable as possible, we did not exclude patients who were unmarried or living alone.

### *Other Instruments*

*Family Adaptability and Cohesion Evaluation Scales (FACES III)* (Olson et al., 1985). This 20-item version has two factors, Cohesion and Adaptability, and has high reliability and validity.

*Interpersonal Support Evaluation List (ISEL)* (Cohen & Hoberman, 1983; Cohen, Mermelstein, Kamarck, & Hoberman, 1985). This 40-item scale measures four constructs related to social support: tangible, belonging, appraisal, and self-esteem. We used the first three subscales but omitted the self-esteem subscale because it seemed to measure self-esteem rather than social support. The reliability and validity of ISEL is well established (Cohen et al., 1985).

*Symptom Check List-90 (SCL-90)* (Derogatis, Lipman, & Covi, 1973). This 90-item scale measures nine psychiatric symptom constructs. We used two of the subscales: depression—13 items and anxiety—10 items.

*Demographic Background Variables.* These included age, race, education, income, employment, marital status, and number of people in household.

### *Procedures*

We used a modified Dillman (1978) method to conduct the survey. We mailed the questionnaire with a cover letter to patients in July 1990; 2 weeks later we sent a post card reminder to nonresponders; and at 4 weeks we mailed a follow-up letter and a replacement copy of the questionnaire to nonresponders. We did not send an additional mailing by certified mail at 7 weeks, as originally suggested by Dillman.

### *Analyses*

*Reliability.* We examined the contribution of each subscale item to the overall subscale reliability using Cronbach's alpha (Nunnally, 1978). We deleted items that did not contribute. We repeated this process iteratively until all remaining items contributed to the overall reliability of the subscale.

*Factor Analysis.* We conducted a confirmatory factor analysis on the remaining items from both subscales. We forced a two-factor solution to determine the scalability of the items. A Varimax solution was used for the analysis.

*Validity.* An instrument's validity can be determined both by how well it correlates with other related measures (construct validity) and by how well it correlates with

relevant outcome measures (predictive or criterion validity) (Carmines & Zeller, 1979). We examined the construct validity of FEICS by looking at the correlations between the two subscales (PC and EI) and the subscales of FACES and ISEL. We examined first-order correlations using Pearson's *r* correlations. We examined the criterion validity by partialling out the effect of PC and EI in turn in their relationships to two outcome measures, depression and anxiety.

## RESULTS

Of the 182 questionnaires mailed, 101 (55%) were completed and returned; 12 additional questionnaires were returned as undeliverable or were incomplete. The demographic characteristics are shown in Table 1. This is an older population with an average age of 55.5. They are 32% male and 68% female and average three quarters of a year of education beyond high school. Their average yearly income is between \$20,000 and \$30,000.

Of the 101 who did return the questionnaire, 18 did not complete the family items (FACES III and FEICS). Compared with those who did complete the family items, those that did not were more likely to be unmarried (87% vs. 52%) and have smaller family networks (mean 2.4 vs 4.7). There were no other statistically significant psychosocial or demographic differences.

### *Reliability*

Table 2 displays the results of the internal consistency analysis. The Perceived Criticism subscale has an overall alpha of .82. The final scale has seven items with a mean of 1.66 and a standard deviation of 0.67. The Emotional Involvement subscale has an overall alpha of .74. This scale also has seven items with a mean of 3.05 and a standard deviation of 0.91.

### *Factor Analysis*

Confirmatory factor analysis (Table 3) shows that the 14 remaining items do load onto two distinct scales.

### *Construct Validity*

Table 4 displays the results of first-order correlations between PC, EI, FACES subscales, ISEL subscales, and demographic variables.

FEICS subscales correlate significantly with cohesion and adaptability and the social support subscales. PC negatively correlates with EI, cohesion and adaptability, and the social support subscales, showing that people who perceived their families to be critical of them also perceive their families to be less close, less adaptable, and

**Table 1**  
**Sample Demographics**

Variable	Mean	SD
Age	55.50	12.63
Male sex (%)	0.32	0.47
Education (years)	12.75	3.56
Married (%)	0.42	0.49
Live alone (%)	0.35	0.47
Total network (# people)	7.95	4.21
Family network (# people)	4.41	2.91
Family Income	\$20,000-30,000	\$10,000

**Table 2**  
**Item Analysis**

*Perceived Criticism Subscale*  
Cronbach's alpha = .82

Variable	Mean	SD	Correlation With Total	Alpha Item Out	New Correlation With Total	Alpha Item Out
D02 .critical	2.47	1.35	0.28	0.78		
D04 .approves	2.28	1.21	0.45	0.76	0.50	0.80
D06 .fault	1.49	0.81	0.53	0.75	0.54	0.79
D08 .money	1.68	1.04	0.51	0.75	0.52	0.80
D10 .friends	1.76	0.97	0.53	0.75	0.58	0.79
D12 .fun	1.54	0.95	0.60	0.74	0.61	0.78
D14 .change	1.56	0.81	0.60	0.74	0.65	0.77
D16 .put me down	1.50	1.00	0.48	0.75	0.48	0.80
D18 .judging	2.14	1.02	0.25	0.78		
D20 .more like	2.03	1.16	0.25	0.78		

*Emotional Involvement Subscale*  
Cronbach's alpha = .74

Variable	Mean	SD	Correlation With Total	Alpha Item Out	New Correlation With Total	Alpha Item Out
D01 .upset	3.30	1.16	0.48	0.62	0.50	0.70
D03 .feeling	3.30	1.31	0.38	0.64	0.44	0.71
D05 .intrude	2.19	1.18	0.26	0.65		
D07 .decisions	1.67	0.85	0.09	0.68		
D09 .do things	3.66	1.28	0.25	0.66		
D11 .give money	3.00	1.55	0.31	0.65	0.37	0.73
D13 .thinking	2.46	1.22	0.40	0.63	0.46	0.70
D15 .time alone	1.84	1.02	0.26	0.66		
D17 .I often.	2.60	1.19	0.33	0.64	0.40	0.72
D19 .If I upset.	2.75	1.25	0.59	0.60	0.56	0.68
D21 .has no idea	2.43	1.13	-.06	0.70		
D22 .involved	1.70	1.04	0.19	0.67		
D23 .no way	3.62	1.58	0.40	0.63	0.43	0.71

perceive themselves to have less social support. PC is also negatively related to income and education.

EI positively correlates with cohesion and adaptability and the social support subscales. Thus respondents who perceived their families as intensely emotionally involved also reported more social support and higher cohesion and adaptability. EI is also positively correlated with being married.

Neither PC nor EI significantly correlates with age, male sex, total network size, or family network size.

#### *Criterion Validity*

An important issue in establishing validity of a family instrument is not just whether it correlates with related family or social support scales, but whether it correlates with important criterion variables. PC has a substantial bivariate correlation with both depression and anxiety. These correlations  $r_{PC,Dep} = .378$   $p \leq .001$  and  $r_{PC,Anx} = .352$   $p \leq .001$  are larger than any of the other correlations with depression or anxiety. Neither cohesion nor adaptability of FACES had significant correlations with depression or

**Table 3**  
**Confirmatory Factor Analysis**

	Factor 1 (PC)	Factor 2 (EI)
D01	-0.01	0.64*
D03	-0.14	0.54*
D11	-0.17	0.58*
D13	0.06	0.61*
D17	-0.09	0.53*
D19	0.15	0.71*
D23	-0.22	0.65*
D04	0.54*	-0.43
D06	0.64*	-0.08
D08	0.60*	0.00
D10	0.63*	-0.35
D12	0.72*	-0.08
D14	0.79*	0.07
D16	0.61*	-0.01

*Note:* Values greater than 0.50 are marked with an asterisk.

anxiety. The EI subscale was not significantly correlated with either depression or anxiety (bivariate correlation).

To examine the relationship between FEICS and depression and anxiety further, we examined correlations of both depression and anxiety with the other psychosocial variables, partialling out the effect of the FEICS subscales. Table 5 shows the results of this analysis. Once we partialled out the effects of PC and EI from depression and anxiety, neither FACES subscales nor social support subscales correlated significantly with depression or anxiety.

Partial correlations uncovered an additional relationship. Once we partialled out PC, EI correlated significantly with both depression and anxiety ( $r_{EI,Dep} = .251$   $p \leq .05$  and  $r_{EI,Anx} = .223$   $p \leq .05$ ). Also, partialling out EI increases the correlation of PC with both depression and anxiety.

## DISCUSSION

This paper reports on the development of a scale to assess expressed emotion from the recipient's perspective. FEICS has acceptable levels of reliability as assessed with Cronbach's coefficient of internal consistency. FEICS correlates in the expected direction with a well-known family instrument (FACES) and with a measure of social support (ISEL), demonstrating its construct validity. In terms of its criterion validity, PC had a higher correlation with depression and anxiety than either FACES or ISEL, and when we partialled out EI, the correlation was even higher. In addition, when we partialled out PC, EI changed from no significant correlation with either depression or anxiety to significant correlations with each. This suggests that EI is tapping into intense involvement after the effects of critical comments are removed. In this study, more depressed and anxious people report being extremely close to their family members whom they also see as critical of them.

Coyne (1976) has proposed that family members respond negatively to a family member's depression. Family members attempt to be helpful (Coyne, Wortman, & Lehman, 1988) but then become intensely emotionally involved. Their attempts to help fail and contribute to a stalemate in the patients' attempts to recover from their depression. The results of this pilot study offer support to this theory.

Table 4  
Correlations Between FEICS Subscales, Other Scales, and Demographic Variables

	PC <sup>2</sup>	EI <sup>2</sup>	Depr.	Anx.	Cohesion <sup>3</sup>	Adapt. <sup>3</sup>	Tang. <sup>4</sup>	Belong. <sup>4</sup>	Appraisal <sup>4</sup>
PC <sup>2</sup>	1.000								
EI <sup>2</sup>	-0.265*	1.000							
Depression	0.378**	0.086	1.000						
Anxiety	0.352**	0.088	0.847**	1.000					
Cohesion <sup>3</sup>	-0.440**	0.594**	-0.135	-0.078	1.000				
Adapt. <sup>3</sup>	-0.374**	0.498**	-0.101	-0.027	0.635**	1.000			
Tangible <sup>4</sup>	0.298*	-0.348**	0.241*	0.081	-0.441**	-0.480**	1.000		
Belonging <sup>4</sup>	0.349**	-0.343**	0.269*	0.175	-0.544**	-0.438**	0.656**	1.000	
Appraisal <sup>4</sup>	0.254*	-0.389**	0.277*	0.215*	-0.566**	-0.459**	0.657**	0.654**	1.000
Age	0.065	-0.003	-0.005	-0.054	-0.180	-0.052	0.083	0.203*	0.190*
Male sex	0.101	-0.010	-0.140	-0.075	0.053	-0.016	-0.069	-0.013	0.084
Education	-0.362**	0.138	-0.061	-0.076	0.227*	0.220	-0.085	-0.101	-0.142
Income	-0.269*	0.189	-0.316**	-0.294*	0.395**	0.337**	-0.370**	-0.426**	-0.347**
Married	-0.093	0.287*	-0.182	-0.146	0.430**	0.182	-0.226*	-0.280*	-0.257*
Alone	0.210*	-0.143	0.269*	0.278*	-0.164	0.041	0.035	0.150	0.100
Total									
network	-0.067	0.138	-0.152	-0.110	0.253*	0.291*	-0.427**	-0.383**	-0.387**
Family									
network	0.020	0.142	-0.080	-0.034	0.226*	0.193	-0.349**	-0.282**	-0.326**

\* $p \leq .05$ , \*\* $p \leq .001$

<sup>2</sup>subscales of FEICS

<sup>3</sup>subscales of FACES III

<sup>4</sup>subscales of ISEL

**Table 5**  
**Partial Correlations of Psychosocial Variables with Depression and Anxiety**

	Depression	Anxiety
<i>Pearson Partial Correlation Coefficients (PC and EI Partialled out)</i>		
Cohesion <sup>3</sup>	-0.130	-0.064
Adaptability <sup>3</sup>	-0.095	0.002
Tangible <sup>4</sup>	0.047	-0.055
Belonging <sup>4</sup>	0.099	0.066
Appraisal <sup>4</sup>	0.169	0.207
<i>Pearson Partial Correlation Coefficients (EI Partialled out)</i>		
PC <sup>2</sup>	0.429**	0.397**
<i>Pearson Partial Correlation Coefficients (PC Partialled out)</i>		
EI <sup>2</sup>	0.251*	0.223*

<sup>2</sup>subscales of FEICS

<sup>3</sup>subscales of FACES III

<sup>4</sup>subscales of ISEL

EE research has been criticized by advocates for families of the mentally ill (Hatfield, Spaniol, & Zippel, 1987; Hatfield, 1988). These advocates claim that EE research puts the blame on families for both the onset and the course of the illness. The concept of emotional overinvolvement is controversial. Some feminists claim that the term is a covert criticism of women in general and of mothers in particular (Luepinitz, 1988; Walters, Carter, Papp, & Silverstein, 1988; Layton, 1984; Bograd, 1989). The term, "emotionally overinvolved," is a negative term. We labeled our subscale "Emotional Involvement" to emphasize that we do not assume that high levels of emotional involvement are detrimental. There may be family situations where high levels of emotional involvement are necessary and low levels of emotional involvement would be detrimental. Such situations may be the illness of young children, acute illnesses, health behaviors, and so forth. We do not know from this study if high levels of EI are detrimental for depression, only that depressed persons report high levels of emotional involvement. We hope to determine from further studies what family factors are predictive of depression and anxiety.

This is a report of a reliability and validity study based on one small sample. Yet this sample size compares favorably to the samples used to develop the Family Assessment Device (FAD) (Miller et al., 1985). Miller et al. (1985) used samples of 45 community people to assess the concurrent validity of FAD with FACES. They used a sample of 36 psychiatric patients and their families with 6 medical patients and their families to assess discriminant validity.

One hundred and one people returned the survey, but only 83 answered the FEICS questions. This could suggest that the results are not generalizable to unmarried persons. We think the lower response rate was due to the wording of the instructions in the survey. The instructions stated, "Describe your family now." In addition, we also had a "Does not Apply" response category. We did this to make all the items correspond to other scales in our survey. Several respondents noted that these items did not apply to them since they lacked family. We believe that removing the word "now" and the "does not apply" category from the instructions would avoid this problem. There were no significant psychosocial differences between those that did and did not respond to the

family items, so it is unlikely that this response bias would have confounded the observed associations.

This study does not evaluate whether the FEICS scale is tapping the same factorial domain of EE measured through coding CFI interviews. In addition, we don't know if the CFI and FEICS should be substantially correlated, even though they are both based on the same theory. Olson (1985) and Sigafos and Reiss (1985) debated the issue of outsider and insider perspectives on the family. Olson (1985) claims that self-report and interview techniques cannot be expected to produce the same results. Sigafos and Reiss (1985) argue that any researcher-initiated assessments of the family are outsider perspectives, but that interview or interaction methodologies emphasize the insider perspective more than do self-report scales. Even though this debate is far from settled, we are currently conducting a study of community-dwelling, mentally ill elderly patients. We are measuring EE with the Camberwell Family Interview, with Docherty and Serper's (1990) scale, and with the FEICS to determine how these measurement instruments relate to each other.

The final form of the FEICS scale is given in the Appendix. This is the first EE scale that is short enough to use in survey research, and it may be useful in treatment studies. We developed this scale on an older sample (average age = 55.5 years). FEICS is not parent-child focused and may be useful with gerontological samples. This study also included a majority of unmarried persons and a significant proportion of people living alone. This offers the possibility of broadening family research beyond studies limited by age and marital status. We are not suggesting that the FEICS is a substitute for measuring EE with the CFI interview. We do believe that because FEICS is less expensive and easier to use than traditional measures of EE, it will allow the concepts of EE to be applied to new areas of family research.

#### REFERENCES

- Bograd, M. (1989). Scapegoating mothers in family therapy: Re-exploring enmeshment. In M. Mirkin (Ed.), *Social and political context of family therapy* (pp. 69–88). New York: Gardner.
- Brown, G. W., Birley, J. L. T., & Wing, J. K. (1972). Influence of family life on the course of schizophrenic disorders: A replication. *British Journal of Psychiatry*, *121*, 241–258.
- Brown, G. W., Monck, E. M., Carstairs, G. M., & Wing, J. K. (1962). Influence of family life on the course of schizophrenic illness. *British Journal of Preventive and Social Medicine*, *16*, 55–68.
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Beverly Hills, CA: Sage.
- Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. (1985). Measuring the functional components of social support. In I. G. Sarason & B. R. Sarason (Eds.), *Social support: Theory, research and application* (pp. 73–94). The Hague, Holland: Martinus Nijhoff.
- Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, *13*, 99–125.
- Cole, J. D., & Kazarian, S. S. (1988). The Level of Expressed Emotion Scale: A new measure of expressed emotion. *Journal of Clinical Psychology*, *44*, 392–397.
- Cook, W. L., Strachan, A. M., Goldstein, M. J., & Miklowitz, D. J. (1989). Expressed emotion and reciprocal affective relationships in families of disturbed adolescents. *Family Process*, *28*, 337–348.
- Coyne, J. C. (1976). Toward an interactional description of depression. *Psychiatry*, *39*, 28–40.
- Coyne, J. C., Wortman, C. B., & Lehman, D. R. (1988). The other side of support: Emotional overinvolvement and miscarried helping. In B. K. Gottlieb (Ed.), *Marshalling social support: formats, processes and effects* (pp. 305–330). Newbury Park, CA: Sage.
- Derogatis, L. R., Lipman, R. S., & Covi, L. (1973). SCL-90: An outpatient psychiatric rating scale—Preliminary report. *Psychopharmacology Bulletin*, *19*, 13–28.
- Dillman, D. A. (1978). *Mail and telephone surveys: The total design method*. New York: John Wiley & Sons.

- Doane, J. A., West, K. L., Goldstein, M. J., Rodnick, E. H., & Jones, J. E. (1981). Parental communication deviance and affective style: Predictors of subsequent schizophrenia spectrum disorders in vulnerable adolescents. *Archives of General Psychiatry*, *38*, 679-685.
- Docherty, N. M., & Serper, M. R. (1990). Development and preliminary validation of a questionnaire assessment of expressed emotion. *Psychological Reports*, *67*, 279-287.
- Fischmann-Havstad, L., & Marston, A. R. (1984). Weight loss maintenance as an aspect of family emotion and process. *British Journal of Clinical Psychology*, *23*, 265-271.
- Fiore, J., Becker, J., & Coppel, D. B. (1983). Social network interactions: A buffer or a stress. *American Journal of Community Psychology*, *11*, 423.
- Gift, T. E., Cole, R. E., & Wayne, L. C. (1985). A hostility measure for use in family contracts. *Psychiatry Research*, *15*, 205-210.
- Gilhooly, M. L., & Whittick, J. E. (1989). Expressed emotion in caregivers of the dementing elderly. *British Journal of Medical Psychology*, *62*, 265-273.
- Greedy, D. (1987). Expressed emotion in the family of the mentally handicapped: A pilot study. *British Journal of Psychiatry*, *150*, 400-402.
- Green, R. G., Kolvezon, M. S., & Vosler, N. R. (1985). The Beavers-Timberlawn model of Family Competence and the Circumplex model of Family Adaptability and Cohesion: Separate, but equal? *Family Process*, *24*, 385-398.
- Hatfield, A. B. (1988). Issues in psychoeducation for families of the mentally ill. *International Journal of Mental Health*, *17*, 48-64.
- Hatfield, A. G., Spaniol, L., & Zippel, A. M. (1987). Expressed emotion: A family perspective. *Schizophrenia Bulletin*, *13*, 221-226.
- Hogarty, G., Anderson, C., Reiss, D., Kornblith, S., Greenwald, D., Javna, C., & Madonia, M. (1986). Family psychoeducation, social skills training, and maintenance chemotherapy in the aftercare treatment of schizophrenia. *Archives of General Psychiatry*, *43*, 633-642.
- Hooley, J. M. (1986). Expressed emotion and depression: Interactions between patients and high-versus low-expressed-emotion spouses. *Journal of Abnormal Psychology*, *95*, 237-246.
- Hooley, J. M., Orley, J., & Teasdale, J. D. (1986). Levels of expressed emotion and relapse in depressed patients. *British Journal of Psychiatry*, *148*, 642-647.
- Hooley, J. M., & Teasdale, J. D. (1989). Predictors of relapse in unipolar depressives: Expressed emotion, marital distress, and perceived criticism. *Journal of Abnormal Psychology*, *98*, 229-235.
- Kazarian, S. S., Malla, A. K., Cole, J. D., & Baker, B. (1990). Comparisons of two expressed emotion scales with the Camberwell Family Interview. *Journal of Clinical Psychology*, *46*, 306-309.
- Kuipers, L., & Bebbington, P. (1988). Expressed emotion research in schizophrenia: Theoretical and clinical implications. *Psychological Medicine*, *18*, 893-909.
- Layton, M. (1984). Tipping the therapeutic balance: Masculine, feminine, or neuter. *Family Therapy Networker*, *8*, 20-27.
- Leff, J., Kuipers, L., Berkowitz, R., Eberlein-Vries, R., & Sturgeon, D. (1982). A controlled trial of social intervention in the families of schizophrenic patients. *British Journal of Psychiatry*, *141*, 121-134.
- Leff, J. P., & Vaughn, C. E. (1981). The role of maintenance therapy and relatives' expressed emotion in relapse of schizophrenia: A two-year follow-up. *British Journal of Psychiatry*, *139*, 102-104.
- Leff, J., & Vaughn, C. (1985). *Expressed emotion in families: Its significance for mental illness*. New York: Guilford.
- Luepnitz, D. (1988). *The family interpreted: Feminist theory in clinical practice*. New York: Basic Books.
- Magana, A. B., Goldstein, M. J., Karno, M., Miklowitz, D. J., Jenkins, J., & Falloon, I. R. (1986). A brief method for assessing expressed emotion in relatives of psychiatric patients. *Psychiatry Research*, *17*, 203-212.
- Miklowitz, D. J., Goldstein, M. J., Falloon, I. R., & Deane, J. A. (1984). Interactional correlates of expressed emotion in families of schizophrenics. *British Journal of Psychiatry*, *144*, 482-487.
- Miklowitz, D. J., Goldstein, M. J., Nuechterlein, K. H., Snyder, K. S., & Mintz, J. (1988). Family factors and the course of bipolar affective disorder. *Archives of General Psychiatry*, *45*, 225-231.
- Miller, I. W., Epstein, N. B., Bishop, D. S., & Keitner, G. I. (1985). The McMaster family assessment device: Reliability and validity. *Journal of Marital and Family Therapy*, *11*, 345-356.

- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Olson, D. H. (1985). Commentary: Struggling with congruence across theoretical models and methods. *Family Process*, 24, 203–207.
- Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxem, M., & Wilson, M. (1983). *Families: What makes them work*. Los Angeles, CA: Sage.
- Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxem, M., & Wilson, M. (1985). *Family inventories*. St. Paul, MN: University of Minnesota, Family Social Science.
- Perosa, L. M., & Perosa, S. L. (1990). The use of a bipolar item format for FACES III: A reconsideration. *Journal of Marital and Family Therapy*, 16, 187–199.
- Pratt, D. M., & Hansen, J. C. (1987). A test of the curvilinear hypothesis with FACES II and III. *Journal of Marital and Family Therapy*, 13, 387–392.
- Priebe, S., Wildgrube, C., & Muller-Oerlinghausen, B. (1989). Lithium prophylaxis and expressed emotion. *British Journal of Psychiatry*, 154, 396–399.
- Sigafoos, A., & Reiss, D. (1985). Rejoinder: Counterperspectives on family measurement: Clarifying the pragmatic interpretation of research methods. *Family Process*, 24, 207–211.
- Vaughn, C. E. (1989). Annotation: Expressed emotion in family relationships. *Journal of Child Psychology and Psychiatry*, 30, 13–22.
- Vaughn, C. E., Snyder, K. S., Jones, S., Freeman, W. B., & Falloon, I. R. (1984). Family factors in schizophrenic relapse: Replication in California of British research on expressed emotion. *Archives of General Psychiatry*, 41, 1169–1177.
- Walters, M., Carter, B., Papp, P., & Silverstein, O. (1988). *The invisible web: Gender patterns in family relationships*. New York: Guilford.

**APPENDIX**  
**FAMILY EMOTIONAL INVOLVEMENT AND CRITICISM SCALE (FEICS)**

DESCRIBE YOUR FAMILY:

<b>Almost Never</b>	<b>Once in a While</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost Always</b>
1	2	3	4	5
01.	(01)	I am upset if anyone else in my family is upset.		
02.	(04)	My family approves of most everything I do.		
03.	(03)	My family knows what I am feeling most of the time.		
04.	(06)	My family finds fault with my friends.		
05.	(11)	Family members give me money when I need it.		
06.	(08)	My family complains about the way I handle money.		
07.	(13)	My family knows what I am thinking before I tell them.		
08.	(10)	My family approves of my friends.		
09.	(17)	I often know what my family members are thinking before they tell me.		
10.	(12)	My family complains about what I do for fun.		
11.	(19)	If I am upset, people in my family get upset too.		
12.	(14)	My family is always trying to get me to change.		
13.	(23)	If I have no way of getting somewhere my family will take me.		
14.	(16)	I have to be careful what I do or my family will put me down.		

PC subscale: even numbered items

EI subscale: odd numbered items

Discarded PC subscale items:

- (02) My family is critical of me.
- (18) I find myself frequently judging my family.
- (20) I wish my family members would be more like me.

Discarded EI subscale items:

- (05) My family members never intrude in my life.
- (07) My family members try to make decisions for me.
- (09) I do things with family members more often than I do things with my friends.
- (15) It is difficult to get time alone in my family.
- (21) My family has no idea what I am feeling most of the time.
- (22) My family members are too involved in my life.

( ) Numbers in parentheses are the original scale numbers.