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Cultural Variability in Expressed Emotion among Families of Adolescents with Anorexia Nervosa

Renee Rienecke Hoste, Ph.D.¹, Zandre Labuschagne, B.A.¹, James Lock, M.D., Ph.D.², and Daniel Le Grange, Ph.D.¹

¹Department of Psychiatry & Behavioral Neuroscience, The University of Chicago, Chicago, Illinois

²Department of Psychiatry & Behavioral Sciences, Stanford University, Stanford, California

Abstract

Objective—To examine the cultural variability in Expressed Emotion (EE) among families of white and ethnic minority adolescents with anorexia nervosa (AN).

Method—One-hundred and eighty-nine AN patients and their parents completed the Eating Disorder Examination and the Structured Clinical Family Interview, from which EE ratings were made.

Results—No differences were found in the number of white and minority families classified as high EE. White families were higher on warmth (W) and tended to be higher on positive remarks (PR) than minority families. High EE was associated with a longer duration of illness, but was not related to eating disorder pathology.

Discussion—Few differences were found between white and ethnic minority families on the EE dimensions of CC, hostility (H), or EOI. Differences between families on W and PR, however, may have important treatment implications.

Expressed emotion (EE) refers to the emotions, attitudes, and behaviors expressed by relatives toward an ill family member (1), and has been an exceptionally reliable indicator of relapse in individuals with schizophrenia (2). EE is measured along five subscales: critical comments (CC), hostility (H), positive remarks (PR), warmth (W), and emotional overinvolvement (EOI). High EE families display more CCs, H, and EOI than low EE families.

The meanings and attributions attached to mental illness vary from culture to culture, as do the responsibilities of family members and the cultural meaning of family (3). These differences, in turn, can impact treatment outcome for psychiatric patients. The body of research on cultural differences in EE and the impact on treatment outcome and relapse rates for adult patients with schizophrenia is steadily accumulating (e.g., 3,4), but relatively little is known about cultural differences in EE for adolescents with any psychiatric disorder.

The family system impacts adolescents greatly and is therefore important to examine. Historical views suggesting that dysfunctional families may cause eating disorders (EDs) (5) have given way to the assertion that families are a vital resource in helping their children recover (6). Research has found, however, that high parental EE can impede the recovery

Address correspondence to Renee Rienecke Hoste, Department of Psychiatry & Behavioral Neuroscience, The University of Chicago, 5841 South Maryland Avenue, MC 3077, Chicago, IL 60637. Phone: 773-702-9683, Fax: 773-702-9929, rhoste@yoda.bsd.uchicago.edu.

process (7). Thus, a greater understanding of factors that influence family interaction and self-expression, such as culture and ethnicity, may be useful in further developing family-based treatments. However, few studies have examined cultural differences in EE among families of adolescents with EDs. Hoste and Le Grange (8) found that minority parents of adolescents with bulimia nervosa (BN) tended to be lower on warmth and made fewer positive remarks than white parents. A recent study of patients with anorexia nervosa (AN) found that parental warmth was related to good treatment outcome (9). No published studies have examined the impact of cultural differences in EE on treatment outcome for patients with EDs. The vast majority of this work has been conducted with patients with schizophrenia, and these studies have also found that warmth may be an important factor in treatment outcome (10). This suggests that efforts to increase the positive aspects of EE (W, PR) may be just as important as reducing the negative aspects of EE (CC, H, EOI). However, more information on the prevalence of cultural differences in EE among families of adolescents with EDs is needed. The aim of the current study is to examine EE among parents of white and ethnic minority adolescents seeking treatment for AN.

Method

Participants and Procedure

Participants were 207 patients and their families taking part in two treatment studies for adolescent AN at Stanford University ($n = 146$) and the University of Chicago ($n = 61$) (11,12). Participants in both studies were male and female adolescents between the ages of 12 and 18 who met DSM-IV criteria for AN, although they were not required to meet the amenorrhea criterion. As part of the assessment measures completed at baseline, participants and their families in both studies completed a battery of self-report and interview-based measures. Of the 207 families, 189 completed the Structured Clinical Family Interview (SCFI) (13) with one or both parents. The studies were approved by the Institutional Review Boards of both universities.

Measures

Structured Clinical Family Interview (SCFI) (13)—The SCFI is a measure of family life in which all family members are interviewed together. The SCFI includes questions on family cohesiveness, similarities and differences between family members, roles and responsibilities in the household, conflict, discipline, decision making, and the family's involvement with extended family and with their community. EE ratings are made from the videotaped interviews.

Eating Disorder Examination (EDE) (14)—The EDE is a semi-structured interview designed to assess the cognitive and behavioral aspects of ED psychopathology and to generate operational ED diagnoses. It is considered the “gold standard” for ED assessment. It yields a global score and four subscales: eating concern, shape concern, weight concern, and restraint.

Data Analysis

The five EE subscales are rated as follows: CC and PR are measured as frequency counts. H is a global measure rated on a scale from 0 to 3, and is based on a relative's rejection of the patient, generalization of criticism about the patient, or both. W and EOI are also global measures, rated from 0 to 5. W is based on a relative's sympathy, concern for, and interest in the patient. EOI takes into consideration a relative's overprotective or self-sacrificing behavior, as well as dramatization and extreme emotional responses toward the patient or in the interview.

In studies of patients with schizophrenia, high EE has been defined as a relative making six or more CCs, showing any H toward the patient, or scoring 3 or higher on EOI (15). Studies of ED patients have found that their families have a much more muted style of interacting, with lower scores on all EE subscales (8,9). Thus, for the current study, high EE was defined as a relative making one or more CCs, showing any H toward the patient, or scoring 3 or higher on EOI. EE ratings were made by RH and DLG, both trained by Christine Vaughn, PhD, at the Institute of Psychiatry, University of London. Interrater reliability between the raters was established at 0.80.

Because small sample sizes did not allow for statistical comparisons between ethnic minority groups, it was necessary to combine the groups for statistical analyses. Chi-square analyses were used to compare white and minority families on EE (high vs. low). MANOVAs were used to compare families on EE subscales. Paired sample t-tests were used to compare white mothers and fathers and minority mothers and fathers.

Results

Participants were 172 females (91%) and 17 males with a mean age of 14.7 ($SD=1.6$), a mean duration of illness of 11.3 months ($SD=9.2$), and a mean BMI of 16.5 ($SD=1.3$). Most patients came from intact families (78.8%) and were white (76.2%). Nineteen (10.1%) families were Asian, one (0.5%) was black, 15 (7.9%) were Hispanic, one (0.5%) was American Indian, and nine (4.8%) identified themselves as "other". Three hundred and forty-four parents (184 mothers and 160 fathers) participated in the SCFI.

Expressed Emotion Scales

White mothers made more PRs ($F(1,182)=4.4, p=.038$) and were higher on W ($F(1,182)=8.5, p=.004$) than minority mothers. White and minority fathers did not differ from each other. White mothers made more PRs ($t(122)=3.9, p=.000$) and were higher on W ($t(122)=5.2, p=.000$) and EOI ($t(122)=3.9, p=.000$) than white fathers. Minority mothers tended to make more CCs ($t(31)=1.7, p=.096$) and tended to be higher on EOI ($t(31)=1.7, p=.10$) than minority fathers (see Table 1). When parents' scores were averaged, white families were significantly higher on W ($F(1,187)=5.1, p=.025$) and tended to be higher on PR ($F(1,187)=3.1, p=.080$).

High Versus Low Expressed Emotion

Chi-square analyses revealed no differences between the number of white (30.5%) and minority (31.1%) families classified as high EE, $\chi^2(1)=.005, p=.94$.

Expressed Emotion and Disordered Eating

Patients from high EE families had a longer duration of illness ($M=13.6, SD=1.2$) than patients from low EE families ($M=10.3, SD=.80$) ($F(1,185)=5.4, p=.022$), tended to be older ($M=15.1, SD=.21$ vs. $M=14.6, SD=.14$) ($F(1,187)=3.5, p=.064$), and tended to be more likely to use diuretics in the previous 28 days ($M=3.3, SD=1.6$ vs. $M=0.0, SD=1.1$) ($F(1,187)=3.0, p=.088$). No differences were found on any other measures of ED behavior or on the EDE subscales or global score.

Discussion

The current study examined EE in a large sample of families participating in treatment for adolescent AN. Few differences were found between white and ethnic minority families on the scales associated with high EE (CC, H, and EOI). However, white families were higher on W and tended to make more PRs. Overall, the families' scores on all five EE dimensions

were fairly low, consistent with previous studies of EE among families of adolescents with EDs (7–9). In addition, EE was generally not related to eating disorder psychopathology, which is consistent with previous studies of adolescents with BN (8). EE was associated with a higher likelihood of using diuretics in the previous month and a longer duration of illness, but the differences between the high and low EE groups were small and may not be clinically significant.

After the development of the construct of EE, the dimensions of W and PR were ignored for many years, and “expressed emotion” came to have a largely negative connotation. However, an increase in cross-cultural research on EE among schizophrenia patients found that the factors associated with relapse were more complicated than previously thought, with W playing perhaps just as important of a role as CCs, depending on the patient's sociocultural background (10), suggesting that EE may be conceptualized in a more positive light. Cultural views on mental illness can impact relatives' attributions about the cause of an illness and about the controllability of illness-related behaviors, which in turn can impact their affective responses to patients (10). Relatives who believe a patient is responsible for his or her illness, or can control illness-related behaviors, may experience negative affect, including criticism and hostility, whereas relatives who believe a patient is not responsible for his or her illness or actions may be more likely to experience positive affect, including sympathy and warmth. Possible reasons behind the differences in warmth in the current study would be important to determine, as family members' attributions about their child's ED may have important implications for treatment, perhaps particularly for family-based treatment (FBT), which the majority of the patient sample received (11,12).

An important tenet of FBT for adolescent EDs is separating the illness from the patient (16). Parents are told that when it comes to issues of eating and weight, the adolescent's behaviors, thoughts, and emotions are being directed by the ED, which is why parents are asked to temporarily take charge of the child's eating. This separation between patient and illness can help parents stand firm against the ED during the weight restoration process, while being supportive of their child. Likewise, it can help parents keep in mind that frustrating behaviors are stemming not from the child, but from the ED. This is expected to reduce parental criticism. Because attributions about the controllability of an illness, as well as illness-related behaviors, can impact levels of warmth, it may be helpful to gather more information from families regarding the attributions they make about their child's ED.

There were several limitations to the current study. Most notably, the sample sizes for the ethnic minority groups were too small to permit statistical comparisons among the groups. In addition, measures of acculturation, which has been found to be related to ED symptoms (17), and socioeconomic status, which has been found to be relevant to EE (18), were not included.

The current study found few differences between white and ethnic minority families on the EE dimensions of CCs, H, or EOI. Differences between families on W and PR, however, may have important treatment implications. Families have often historically been blamed for causing or exacerbating mental illness, and the negative associations with EE focused attention on what families were doing “wrong” (10). Increasing familial warmth may refocus attention on family strengths rather than weaknesses.

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Table 1

Mean (SD) EE Scores of White and Minority Parents of Adolescents with AN

	CC	PR	H	W	EOI
Fathers					
White (<i>n</i> =125)	0.4 (1.1)	1.0 (1.4)	0.1 (0.3)	1.6 (1.3)	0.3 (0.7)
Minority (<i>n</i> =35)	0.2 (0.6)	0.8 (1.0)	0.1 (0.3)	1.3 (1.3)	0.4 (0.7)
Mothers					
White (<i>n</i> =142)	0.4 (1.3)	1.8 (1.8)	0.0 (0.3)	2.2 (1.2)	0.7 (0.9)
Minority (<i>n</i> =42)	0.9 (2.4)	1.1 (1.5)	0.1 (0.3)	1.6 (1.1)	0.9 (1.2)

Note. CC = Critical Comments, PR = Positive Remarks, H = Hostility, W = Warmth, EOI = Emotional Overinvolvement