

Ethnicity, Expressed Emotion, and Schizophrenia Patients' Perceptions of Their Family Members' Criticism

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Abstract: Expressed emotion is a widely researched construct. However, less is known about patients' own perceptions of their relatives' expressed emotion. Using a sample of 42 patient/family member dyads with schizophrenia, we examined the concordance between the number of criticisms expressed by relatives during the Camberwell Family Interview and patients' perceptions of how critical they perceived their relative to be. As predicted, white and Latino family members who expressed more criticism during the Camberwell Family Interview were indeed perceived as more critical by patients. Among blacks, however, no significant association was found between relatives' expressed criticism and patients' perceptions of their relatives' criticism. Findings from this study suggest that cultural/ethnic values may influence how criticism from relatives is perceived and experienced by patients.

Key Words: Schizophrenia, family, expressed emotion, patient perception, ethnicity.

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In the burgeoning literature on social factors associated with schizophrenia, expressed emotion (EE) has emerged as an important predictive variable for course of illness (Butzlaff and Hooley, 1998; Weisman, 2005). A household is designated as high EE if one or more relatives exceed a certain frequency of expressed criticisms or hostile remarks when talking about their mentally ill family member during an expressed emotion interview. A household is also designated as high EE if one or more relatives express a high degree of emotional overinvolvement (EOI) with or toward the patient, including intrusive behavior, excessive displays of emotion, and exaggerated personal sacrifice. All other households are designated as low EE. More than 40 years of EE research indicates that patients with major mental disorders who live with family members rated as high EE have poorer illness prognosis and are more likely to relapse than those whose

family members are rated as low EE (Butzlaff and Hooley, 1998; Kavanagh, 1992; Jenkins, 1990).

While criticism, hostility, and EOI were all found to be linked to poorer course of illness in the early EE research (Brown, 1985; Brown and Rutter, 1966; Brown et al., 1972), critical comments appear to be the strongest predictor of relapse (e.g., Kavanagh, 1992; Vaughn and Leff, 1976; Vaughn et al., 1984). High EE based on pure EOI or pure hostility is quite rare and therefore difficult to examine (Barrowclough and Hooley, 2003). Furthermore, the large majority of family members designated as hostile also meet criteria for high EE based on six or more criticisms (e.g., Brown et al., 1972; Vaughn and Leff, 1976). In addition, some evidence indicates that the link between high EE/EOI and outcome may be indirect. For example, Miklowitz et al. (1983) found that, when looking at first episode patients, those from high EE/EOI homes had poorer premorbid adjustment and greater residual symptoms at discharge than those from low EE homes. On the other hand, first episode patients from high EE/critical homes were indistinguishable from patients from low EE homes on measures of premorbid functioning, symptoms, and social adjustment. Thus, it seems feasible that poorer functioning in patients could trigger more overinvolvement on the part of relatives. Therefore, this paper will focus on the high EE category of criticism only, as it seems to have the strongest and most direct relationship with relapse.

The diathesis stress vulnerability model has been used as a way to understand how high EE relates to relapse. This model proposes that people with schizophrenia (with a potentially increased vulnerability to stress) who are discharged to homes with high EE relatives may experience that critical environment as highly stressful, resulting in an exacerbation of symptoms and/or in a relapse. While some research indicates that EE is in part a transactional process, with patient behaviors influencing EE attitudes (e.g., Weisman et al., 2000), other research has provided some evidence that high EE may trigger actual increases in patient stress. Early psychophysiological studies using skin conductance revealed that patients' physiological response to a family member is correlated to that family member's EE rating. Valone et al. (1984) found that when a high-EE family member entered a room, the patient's skin conductance response increased to a level consistent with a stress response and stayed consistent over time. In contrast, when a low EE family member entered

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the room, the patient would exhibit an initial stress response but would then quickly regulate to a normal response.

High EE has been shown to be predictive of poorer outcome in patients with schizophrenia or schizoaffective disorders across a range of nations and ethnicities. These studies include patients of Indian (Leff et al., 1987), Chinese (Phillips and Xiong, 1995), Mexican-American (Karno et al., 1987), Anglo-American (Leff and Vaughn, 1985), and British (Vaughn and Leff, 1976) descent, to name only a few. These findings have been reviewed extensively elsewhere (e.g., Weisman, 2005).

Despite the cross-cultural robustness of EE as a predictor of illness course, the relationship between EE and relapse has been not been found for blacks. For example, Moline et al. (1985) examined relapse among an urban group of 24 patients with schizophrenia, two thirds of whom were black. The remaining eight were white. Across the sample as a whole, EE only predicted relapse when the criteria for high EE was raised from the traditional cutoff of six or more critical comments from the Camberwell Family Interview (CFI) to a higher cutoff of nine or more critical comments. Furthermore, when blacks were assessed separately, EE no longer predicted relapse at all, even when using high cutoff criteria. This finding was reinforced by results from a later study by Tompson et al. (1995), who also failed to find an association between relatives' EE status and patient relapse for blacks. Moline et al. (1985) and Tompson et al. (1995) both suggest that sociocultural factors may explain why EE does not predict relapse for blacks. This point is addressed further below.

PATIENTS' OWN EXPERIENCES OF THEIR RELATIVES' CRITICISM

While expressed emotion is a widely researched construct, most studies are aimed at understanding better how relatives' own beliefs and behaviors relate to EE and course of illness. Only a handful of studies to date have examined patients' own interpretations of their relatives' attitudes and behaviors toward them. In one study, Scazufca et al. (2001) found that white patients perceived relatives rated as high EE to be more critical toward them compared with those who were rated as low EE. This is consistent with a previous study by Lebell et al. (1993), which also found that white patients' perceptions of relatives' negative and positive feelings toward them correlated with relatives' self-reported attitudes.

The relationships between relatives' expressed attitudes and patients' perceptions of EE appear to interact with ethnicity. For example, in a study described earlier, Tompson et al. (1995) found 100% congruence between patient's perceptions of criticism and relatives' EE ratings among their white sample using the FMSS. However, several cases were found to be noncongruent and all of these were among minority participants. Blacks represented the largest group that expressed noncongruence (the Latinos and Asians in the study by Tompson et al. [1995] were too few to be examined separately). Of note, as described earlier, family criticism among blacks in this sample did not predict patient relapse. Interestingly, however, Tompson et al. (1995) instead found

that patients' perceptions of the relatives' criticism did predict outcome. Tompson et al. (1995) argue that what constitutes or is labeled as criticism, and the meaning it has for patients, may vary depending on family ethnicity or race.

For Latinos, congruency between EE and patients' perceptions has yet to be examined. However, one might expect to find a high degree of congruency between family members' EE ratings of criticism and patients' own perceptions of how critical they perceive their relative to be, for two reasons. First, high EE has been found to predict relapse in Mexican Americans, suggesting that high EE attitudes are indeed experienced as stressful to Latino patients. Second, there is a strong value in many Latino cultures for a cultural script termed *simpatía* (Kagan et al., 1982; Marín and Marín, 1991). Marín and Marín (1991) define *simpatía* as a general tendency toward achieving harmony in interpersonal relations and de-emphasizing negative behaviors and emotions toward others. Thus, because interpersonal and family discord is less culturally sanctioned, criticism from relatives may be particularly salient and stressful for Latino patients.

In sum, previous studies have found that EE predicts patient outcome for whites (Leff and Vaughn, 1985; Vaughn and Leff, 1976) and Latinos (Karno et al., 1987) but not for blacks (Moline et al., 1985; Tompson et al., 1995). Other research indicates that white patients who have relatives rated as more critical on measures of EE actually perceive these relatives as more critical of them (Scazufca et al., 2001). For blacks, however, this relationship has not been found (Tompson et al., 1995). No studies that we are aware of have examined congruence between patients' perceptions of criticism and relatives expressed criticisms in Latinos. In the present study, we will stratify by ethnicity and examine the concordance between patients' subjective experience of their family members' criticism and the actual number of critical comments expressed by family members' during the CFI. We hypothesize that the number of CFI critical comments made by family members will be associated with greater perception of criticism by white and Latino patients. However, this pattern is not expected to be found for blacks.

METHODS

Participants

Participants in this study were drawn from a larger project aimed at examining the psychosocial correlates of schizophrenia. The larger schizophrenia study (Weisman et al., 2005) included data from 57 relatives and 47 patients with schizophrenia or schizoaffective disorder based on DSM-IV criteria, and one of their key relatives with whom they were in at least 1 hour per week contact. A one-way ANOVA revealed significant ethnic differences in education for relatives ($F [2,54] = 4.46, p < 0.05$; lower numbers indicate greater education). Pairwise comparisons in Bonferroni-corrected post hoc analyses indicated that whites ($M = 3.35, SD = 1.18$) had significantly greater education than Latinos ($M = 4.67, SD = 1.59; p < 0.05$). Blacks ($M = 3.88, SD = 1.45$) fell in between both groups in educational attainment but were not statistically significantly different from either group. A one-way ANOVA revealed no differences in pa-

tients' ($M = 4.36$; $SD = 1.22$) current level of education ($F [2,44] = 2.81$, $p > 0.05$). For a detailed description of the study and participant characteristics, see Weisman et al. (2005).

Complete data on both relatives' criticism and patients' perceptions of their criticism were only available on 43 patient/relative dyads, and one family/patient dyad was dropped from the present study because the patient and the relative did not identify as having the same ethnic background (one relative was black and the other Latino). Thus, the present study sample includes 42 patient/relative dyads. Fifteen of these families identified themselves as non-Hispanic white, 13 identified as Latino, and 14 identified as black. Patients in this study ranged in age from 19 to 63 ($M = 39.17$, $SD = 11.44$). Half of the patients were male ($N = 21$) and half were female ($N = 21$). Relatives ages ranged from 21 to 86 ($M = 53.57$, $SD = 14.77$). Twenty-nine of the relatives were female and 13 were male.

Procedure

Participants were recruited through the Department of Mental Health sites in Boston, Los Angeles, and Miami. Patients previously diagnosed with schizophrenia or schizoaffective disorder by a qualified mental health practitioner (e.g., licensed psychiatrist, psychologist) were contacted by their social worker or mental health worker and informed of the study. A brief phone screen was then conducted with patients who expressed interest in the study to confirm diagnosis and to evaluate other suitability requirements (e.g., that they had an eligible relative willing to participate). Assessments usually occurred in the home of the patient or relative, but occasionally at an alternative site, including the University of Massachusetts or the patient's mental health agency, if this was more convenient for the family.

Measures

Latino participants were given a choice of completing the assessments in either English or Spanish. All measures were translated in Spanish using an editorial board method (Geisinger, 1994). The board was composed of native Spanish speakers of Cuban descent, Honduran descent, and Mexican descent, and a nonnative speaker with extensive experience in Spanish-speaking countries (Cuba, Mexico, and Spain). The board attempted to develop the most language-generic version of the protocol. That is, all panelists needed to agree that the language was clear and understandable within their own group and that the instruments tapped the intended construct in each Latino subgroup.

Relatives' Expressed Criticisms

The number of critical comments family members made toward their ill relative was rated using the CFI, a widely used measure to assess EE. This is a 1.5-hour semi-structured interview that asks relatives to discuss their general feelings and perceptions about the patient, the patient's illness and functioning, and events that have occurred within the family. For purposes of this study, only the number of critical comments was used for analysis. In the present study, two coders rated EE from the CFI. Both coders attended and successfully completed an intensive training course for scor-

ing the CFI (one in Los Angeles, California, led by Karen Snyder, and the other in London, United Kingdom, led by Christine Vaughn). At the end of the course, both coders achieved interrater reliabilities above .80 with the trainer on five training tapes across key rating scales (Criticism, EOI, Hostility and Overall EE). To assess their reliability with one another, the coders also corated five of the CFI tapes used in this project. An intraclass correlation on the number of criticisms between the two coders was .87 across these five tapes. Critical comments for this sample ranged from 0 to 14 ($M = 3.02$, $SD = 3.79$).

Patient Perceptions of Criticism

This instrument was developed by our research team. It consisted of the following forced choice question: "Do you perceive your relative as: 1) not at all critical, 2) somewhat critical or 3) very critical?" Patients' perceptions of criticism in this sample ranged from 1 to 3 ($M = 1.60$, $SD = .70$).

RESULTS

Consistent with predictions, for whites, a Pearson product moment correlation revealed a significant association between relatives' number of criticisms (as rated from the CFI) and patients' perceptions of their relative as critical ($r = .50$, $p < 0.05$). The number of critical comments expressed by relatives accounted for 25% of the variance in white patients' perceptions of criticism. This is a large effect size according to Cohen's (1988) criteria.

Nearly identical congruence was found for Latinos ($r = .49$, $p < 0.05$). For this ethnic group, the number of critical comments expressed by relatives accounted for 24% of the variance. Thus, as hypothesized, for whites and Latinos, the more criticisms expressed by relatives during the CFI, the more likely patients were to perceive their family member as critical.

In line with study hypotheses, and in contrast to both white and Latino patients, no association was found between the number of criticisms expressed by black family members and patients' perception of this relative as critical ($r = -.07$, $p > 0.05$). According to Cohen (1988), this is a small effect size and accounts for essentially none (0.49%) of the variance. The correlations between relatives' criticisms and patients' perceptions are broken down by ethnicity and depicted visually in Figure 1.

DISCUSSION

Results of this study are in line with hypotheses and replicate earlier findings by Scazufca et al. (2001), Lebell et al. (1993), and Tompson et al. (1995), indicating concordance between relatives' expressed criticisms and patients' perceptions of being criticized for whites. Our failure to find an association between patients' perceptions and relatives criticisms for blacks is also consistent with the findings of Tompson et al. (1995). To the best of our knowledge, this is the first study to examine patients' perceptions of criticism in Latino families with schizophrenia. Consistent with hypotheses and similar to the pattern found for whites, Latino patients also perceived relatives who expressed greater num-

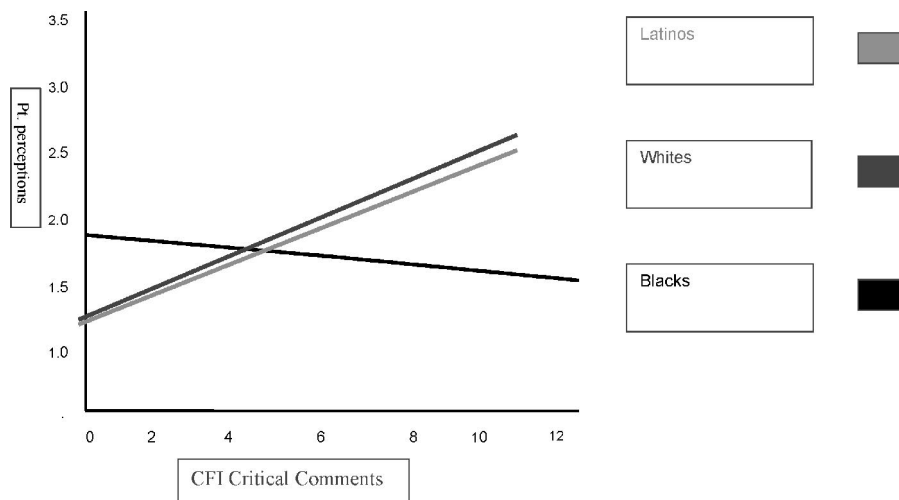


FIGURE 1. Relatives' critical comments and patients' perception of criticism.

bers of critical comments during the CFI as more critical of them. As stated, Latinos often place a strong cultural value on maintaining harmony in relationships and on suppressing conflict (Kagan et al., 1982; Marín and Marín, 1991). Thus, perceived criticism from relatives may be especially stressful for Latino patients, because it violates cultural norms. This supposition appears to be supported by earlier findings by Karno et al. (1987) linking high EE to an increased risk of relapse for Latino patients.

In contrast, black patients' subjective experiences of a family member as critical did not appear to relate at all to the number of criticisms expressed by relatives on the CFI. These findings are interesting in the context of recent studies on black family environments and relapse. For instance, Rosenfarb et al. (2004) found that for black patients, the more critical and intrusive their family members were rated when interacting with them, the less likely they were to relapse. In other words, for blacks, behaviors that are typically labeled as critical and intrusive actually appeared to serve as a protective factor from relapse. This finding is contrary to what would be expected based on an EE literature and the diathesis stress model.

Tompson et al. (1995) have suggested that there may be a cultural gap between an independent observer's assessment of criticism in black families and the actual experience of the ill relative. For example, Milhouse et al. (2001) and others have indicated that whites tend to mislabel black communication patterns as aggressive or angry when interchanges are relatively loud or include much excitement and emotional and physical gesturing, while blacks themselves do not perceive the interactions as such. With respect to EE, Tompson et al. (1995) contend that black patients may therefore not experience the same level of stress in response to their family members' expressing critical emotions or behaviors. It seems, therefore, that EE measures may be of limited utility when assessing black family environments. Evaluating black patients' subjective perspectives of their relatives, on the other hand, may prove to be a more useful approach.

Rosenfarb et al. (2004) go even further by arguing that, for blacks, receiving criticism from family members may

even result in patients feeling decreased stress, because criticism may be experienced as a symbol of engagement, caring, and support on the part of the caregiver. Thus it is possible that it is the "meaning making" of criticism that influences relapse among patients. Unfortunately, Rosenfarb et al. (2004) did not measure patients' subjective experience of relatives' criticism. While EE has not been found to predict relapse for blacks (Moline et al., 1985; Tompson et al., 1995), an important factor for black patients could instead be perceived lack of engagement within the family. Future studies should examine whether this construct plays a role in course of illness for black patients with schizophrenia.

Consistent with our study and with the findings by Tompson et al. (1995), current methods for rating negatively charged home environments may not be culturally meaningful to blacks. Measurements of EE reflect both tone of voice and verbal content of family members' comments. However, communication styles among black families have been found to differ from white Western communication styles, and thus what is identified by the EE instrument as critical may not be experienced as such by blacks. Our findings appear to support the notion that standard measures of EE and identification of comments as critical do not correspond to how black patients perceive their relatives. This discrepancy raises concerns about the validity and utility of imposing white Western standards and measures when rating home environments of black families. However, when blacks do report experiencing their relative as critical, like whites and Latinos, they are also at greater risk for relapse. Thus, criticism may be a robust predictor of relapse across cultures when it is measured based on what patients actually process and experience as criticism. Future quantitative and qualitative studies are needed to identify the specific content of family member attitudes and behaviors that black patients perceive as critical.

The cultural patterns found in congruency between patients' subjective experience of criticism and family members' ratings in this study offer important implications for preventative treatment models, in particular when understood in the context of the larger literature. It is now almost standard for family interventions of patients diagnosed with

schizophrenia to aim to reduce critical engagement in the family system. However, as our study indicates, some black homes may be identified as having a critical home environment, although the patients may not perceive their relatives as critical. In fact, blacks may perceive their family members as caring and engaged. Other studies show that what is measured as criticism actually serves as a buffer against relapse for blacks (Rosenfarb et al., 2004). Thus, interventions aimed at reducing relatives' critical behavior may inadvertently place black patients at greater risk for relapse. Family based interventions should be modified accordingly when applied to black families.

We view this as a small pilot study with several limitations. Although our study hypotheses were confirmed, our sample sizes, particularly when stratified by ethnicity, are quite small. Thus, replications with larger samples of each ethnic group are clearly needed. Similarly, although subgroups of Latinos generally share many important cultural values such as familism, interdependence, and respect for gender and age hierarchies (Weisman 2005), some historical, political, and social differences clearly exist among Latinos from different countries of origin (e.g., Falicov, 1998). While our small sample size precluded this, separate examination of Latino participants from different countries of origin will be an important future direction. In addition to examining patients' internalized global experiences of the family environment, it will also be important to include an assessment of the manner in which patients "make meaning" of their families' criticisms, attitudes, and behaviors toward them. It will also be important to examine how exactly patients' perceptions of their relatives' criticisms relate to illness prognosis and relapse. Similarly, cross-national studies that include more comprehensive evaluations of patients' perceptions of family member criticism may also shed light on the World Health Organization's (1973, 1992) robust finding that patients with schizophrenia from developing compared with developed countries appear to have better illness outcomes.

Finally, as reported in Weisman et al. (2005), we did not conduct a formal entrance interview with patients to verify their psychiatrists' report of schizophrenia, although we did rule out cases that appeared to be of questionable or inappropriate diagnosis during a prescreening phone interview. Fortunately, schizophrenia has among the strongest interrater agreement of any of the DSM-IV mental disorders, with reliability of diagnoses comparable to many medical disorders (Bertelsen, 2002; Owens, 2000). Thus, we feel reasonably confident that all of our participants met study criteria. Nevertheless, future studies in schizophrenia will be strengthened by screening study participants with a psychometrically validated diagnostic entrance interviews. The Present State Examination (Wing et al., 1974) and the Structured Clinical Interview for the DSM-IV (patient interview; First et al., 1995) are two currently available and widely used options.

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