Ethnicity, Family Cohesion, Religiosity and General Emotional Distress in Patients With Schizophrenia and Their Relatives

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Abstract: This study included a sample of 57 Anglo-American, Latino American, and African American patients with schizophrenia and their family members. Findings indicate that for patients, as hypothesized, increasing perceptions of family cohesion was associated with less general emotional distress and fewer psychiatric symptoms. For family members of Latino and African American descent, greater self-reported family cohesion also appeared to have a protective effect against emotional distress, as hypothesized. However, no association was found between family cohesion and general emotional distress for Anglo-American family members. Interestingly, no relationship was found between patients' and their relatives' views of their family environment. Thus, researchers and clinicians working with families are encouraged to attain separate assessments of the family environment from each individual member. Contrary to expectations, religiosity was not associated with patient or family member emotional distress or with patient psychiatric symptoms. Study implications are discussed.

Key Words: Schizophrenia, culture, family cohesion, religiosity, general emotional distress.

While schizophrenia is generally considered to be one of the most puzzling and disabling clinical syndromes, major therapeutic breakthroughs (e.g., psychotropic medications, family focused interventions) have occurred over the past several decades (e.g., Kane, 1996; Nevid et al., 2003). Reports from several clinical research centers have demonstrated high rates of symptomatic remission when access to treatment is continuous and reasonably comprehensive. Despite this, most research focuses on factors that predict patients' specific symptoms (e.g., hallucinations, delusions, blunted affect) and their more objective social (e.g., marriage) and occupational functioning. While these areas of study are important, few studies have examined important correlates of patients' more general emotional well-being, such as their subjective feelings of depression, anxiety, and stress.

Schizophrenia also appears to take its toll on patients' loved ones (Bogren; 1997; Molewyk Doornbos, 1986). Many studies have examined how family members' behaviors (e.g., caregiver burden, expressed emotion) relate to patient symptoms and relapse rates. However, with a few exceptions (e.g., Bogren, 1997; Winefield, 2000), most studies do not examine factors that might alleviate relatives' own emotional distress. This topic is important because growing evidence indicates that a considerable reduction in the quality of life of patient caregivers can arise from the continuous responsibility for the health and psychological care of a disabled family member (Winefield, 2000). It is important to view patients with schizophrenia and their relatives as any other family, characterized by healthy functioning, a variety of strengths, and some potential areas for growth (Molewyk Dorrnbos, 1996). What are the strengths of patients and family members who continue to thrive emotionally despite dealing with schizophrenia? In other words, why do some patients and relatives who are coping with schizophrenia in the family continue to report relatively low levels of general emotional distress (GED) while others suffer a more serious blow to their general emotional welfare?

In this study, we assess two important sociocultural variables hypothesized to be associated with better overall patient and family emotional health. The first is family cohesion. Spiegel and Wissler (1986) found that increasing perceptions of family cohesion by relatives of patients with schizophrenia predicted better patient adjustment (as rated by their relative), and patients who rated their families higher in expressiveness spent fewer days in the hospital throughout the subsequent year. Research also indirectly suggests that perceiving oneself as having social support and being unified

with others is associated with better mental health. Kemmler et al. (1997), for instance, found that patients' overall life satisfaction was related to better social relations. The link between social support and well-being has also been found for caregivers of patients with schizophrenia. For example, Webb et al. (1998) found that increased levels of perceived general social support was related to increased emotional well-being in a sample of family members of patients with severe mental illnesses. These findings suggest that perceptions of general social support do relate to well-being. Thus, we may expect perceived support by family members to be especially important. This may be particularly so since, over the past several decades, the shift toward deinstitutionalization has resulted in a dramatic increase in the number of individuals with schizophrenia who now reside with and are cared for by their kin (Goldstein and Miklowitz, 1995). Given the close personal and physical ties among family members, it is hypothesized in this study that for both patients and their relatives, increasing perceptions of cohesion and support in the family environment will be associated with decreasing levels of GED.

The second potential mitigating variable examined in this study is religiosity/spirituality. In this article, for the most part, we use the terms *religiosity* and *spirituality* interchangeably. However, in some contexts, these terms have separate meanings. Religiosity, for example, is sometimes regarded as referring to a shared belief system (dogma) and communal ritual practice (liturgy), while spirituality is often used to refer more to one's search for meaning and belonging and the core values that influence one's behavior (Sperry, 2001, p. 4).

Religious and spiritually based coping techniques have been linked to increased levels of well-being in individuals facing diverse stressors such as loss or physical illness (e.g., Koenig et al., 1997; McIntosh et al., 1993). Similarly, family cohesion and religiosity/spirituality appear to be important factors for both patients and caregivers coping with mental illness. Furthermore, Reger and Rogers (2002) found that participants with schizophrenia and schizoaffective disorder reported using religion significantly more often and reported more benefit from religious coping than did patients with other disorders such as depression. Studies have also shown that increases in religious activities are associated with better course of illness for patients with schizophrenia (e.g., Verghese et al., 1989). However, some research suggests that greater need for and use of spirituality may be a biproduct or result of increasing psychopathology. For example, Siddle et al. (2002) found, in a study that assessed religiosity at two time points (pretreatment and posttreatment), that patients with schizophrenia reported a decreased need for religion posttreatment, after their symptoms had been reduced. Thus, the relationship between psychopathology and spirituality appears to be complex.

In summary, drawing from previous research, in this study it is hypothesized that strong family and religious values may be associated with less overall psychological distress (less depression, anxiety, and stress) for both patients and family members. We will also examine ethnic patterns in predicting psychosocial well-being from family cohesion and religiosity. It should be pointed out that in this article, the terms *Latino* and *Hispanic* will be used interchangeably to refer to individuals in the United States who have come or have ancestry from Mexico, Puerto Rico, the Dominican Republic, Cuba, El Salvador, Nicaragua, Colombia, Venezuela, Ecuador, Honduras, and other Latin American countries. There is a trend for some groups to prefer one term over the other, but neither term is accepted by all groups. Differences in opinions regarding these terms have even been observed within subgroups, and some individuals prefer no collective term (neither Hispanic nor Latino). Instead this subgroup prefers to be identified by county of origin or ancestry (e.g., Mexican, or Cuban), as both terms fail to identify significant within-group racial and cultural variability and the influence of indigenous peoples (Sue and Sue, 1990).

Research indicates that some ethnic groups, including Latinos/Hispanics, endorse being more religious (Weisman and López, 1996) and having families that are more cohesive (e.g., Latinos in America, 2000) than do their Anglo-American counterparts. Using the Family Environment scale, Moos and Moos (1981) also found that African American and Mexican American families placed greater emphasis on religious factors, family values, and morals. In the present study we also examine whether the model described above predicts for all patients and caregivers equally well or whether there are ethnic differences in the roles that family cohesion and religiosity play in predicting well-being in individuals dealing with schizophrenia.

We will also assess whether the variables of interest in this study (family cohesion, religiosity, and GED) relate to patients' more general psychiatric symptoms. Mounting evidence indicates a link between family stress and schizophrenia relapse, one measure of patient functioning that is specific to illness-related well-being. For example, over 24 well-controlled studies have shown that when family stress is reduced through intervention techniques that educate participants about the illness and improve how families communicate and resolve family problems, the rate of relapse and subsequent hospitalization of patients is greatly reduced (Liberman et al., 2002). Thus, using the same rationale as described above for general emotional well-being, greater family cohesion is hypothesized to be associated with better psychiatric functioning in patients with schizophrenia. With respect to religiosity, earlier findings by Verghese et al. (1989) may lead us to hypothesize that increasing spirituality will also be associated with fewer psychiatric symptoms. However, the finding by Siddle et al. (2002) that improve-

ments in psychiatric symptoms were associated with reduced need for religion may lead us to hypothesize the opposite. Thus, for religion, two competing hypotheses will be tested in this study.

Finally, we will examine correlations between patient and family members' perceptions of their home environments and how these perceptions relate to emotional well-being. This topic is important because family environment is often described as if it were an objective or tangible construct. For example, McEachern and Kenny (2002) state, "Family environment, as measured by the Family Environment Scale (FES), provides an assessment of the social-environmental characteristics of families." No mention is made here (and in several other studies) of the fact that what is assessed by the FES is perceptions of the family, rather than actual characteristics of the environment. In this study, we will assess whether patients and family members view their family similarly. If family cohesion is related to well-being, does an intimate other's view of the environment predict well-being as well as one's own perception of the family environment? Or is one's subjective impression a better predictor of emotional well-being? These questions will be addressed in this study.

METHODS

Participants

Participants consisted of a multiethnic sample of patients diagnosed as having schizophrenia or schizoaffective disorder based on psychiatrist report using DSM-IV criteria and one of the patient's close family members, with whom the patient was in face-to-face contact at least 1 hour per week. Informed consent was obtained from all study participants. A total of 57 relatives (40 female and 17 males) and 47 patients (23 males and 24 females) were recruited through Department of Mental Health sites in Boston ($N = 29$), Los Angeles ($N = 19$), and Miami ($N = 9$). An attempt was made to interview the relative most involved in the patients' care (e.g., generally a parent or spouse). In a few cases, this person was unavailable or unwilling to be interviewed, and another relative (who also met the criteria for at least 1 hour per week of contact with the patient) was substituted. Relatives included 36 parents, 10 siblings, four children, four spouses, one uncle, and two family equivalents (one long-term significant other and one roommate/lifelong friend). Data were not collected on 10 patients for various reasons, such as patient decompensation or the decision to end participation. Of the 57 relatives, 21 were members of Latino families, 20 were members of white families, and 16 were members of African-American families. Ethnicity was rated based on self-report. In all but one case, patients and relatives were of the same ethnicity. In one case, we had a Hispanic relative and an African-American family member.

Procedure

Eligible patients were contacted by their social worker or mental health worker and informed of the study. Those who expressed interest in participating were contacted by phone by the first author, and a brief screening interview was conducted. Participants were asked a series of questions guided by the DSM-IV to confirm their symptoms and diagnosis. Patients who received a prior diagnosis of schizophrenia or schizoaffective disorder by a qualified mental health practitioner (e.g., licensed psychiatrist, psychologist) and appeared clearly to meet DSM-IV criteria for the illness based on self-report of symptoms during the phone interview were invited to participate in the study. Four patients were unable to participate because they did not appear to meet study criteria based on their self-report of symptoms and/or prior diagnoses. Three others were unable to participate because of an unclear diagnosis (e.g., bipolar versus schizoaffective). Several other patients were unable to participate because they did not have an eligible family member willing to participate in the study.

For those who appeared to meet criteria and had an eligible family member who was willing to participate, an assessment was scheduled. 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, whichever site was most convenient for the family. Due to concerns about variations in reading ability, all measures were administered in interview format. Interviewers were given standard instructions on how to introduce each scale. When participants appeared to have difficulty grasping a scale or scale item, interviewers were coached to provide further explanations and examples. However, interviewers were instructed never to steer participants toward any particular response.

Language and Translation of Measures

Three of the four interviewers were fully proficient in Spanish. Hispanic participants were given a choice of completing the assessments in either English or Spanish. Seventeen of the Hispanic family members and 15 of the patients completed the assessments in Spanish. Translation of measures used an editorial board approach, which is considered a more effective alternative to translation back translation (Geisinger, 1994). This method accounts for the fact that there are often within-group language variations (Geisinger, 1995). In accordance with this procedure, the measures were first translated into Spanish by a native Spanish speaker of Cuban descent. The original translator then met with an editorial board that included a native Spanish speaker of Honduran descent, a native speaker of Mexican descent, and the first author, a nonnative Spanish speaker with extended work and personal experience in Spanish-speaking countries (e.g., Cuba, Spain, Mexico) and cities in the United States

where Spanish is widely spoken (Los Angeles, New York, Miami). Each member of the board carefully reviewed the Spanish translation and compared it against the English version in private. This was followed by a group meeting in which the panelists and the original translator discussed discrepancies and reconciled all differences and concerns with the translation. An attempt was made to develop the most language-generic version of the protocol. That is, all panelists needed to agree that the language was clear and understandable in their own within-group and that the instruments tapped the intended construct in each Hispanic subgroup.

Patient Measures

Brief Psychiatric Rating Scale

The Brief Psychiatric Rating Scale (BPRS) was administered to all patients to assess current psychiatric symptoms. The BPRS assesses the following eight primary areas: unusual thought content, hallucinations, conceptual disorganization, depression, suicidality, self-neglect, bizarre behavior, and hostility. The scale has been widely used in English and in Spanish and has demonstrated good reliability with Anglos and minorities alike (e.g., Caram et al., 2001; Nuechterlein et al., 1992). A total BPRS score was obtained by summing patients' scores across all items. The first author of this project completed a BPRS training and quality assurance program at the University of California, Los Angeles. At the end of the course, she was evaluated across 10 interviews and achieved a mean intraclass correlation coefficient of .93 with the trainer and an intraclass coefficient above .80 for all 24 scale items. The first author served as the BPRS trainer and one of the primary interviewers on the current project. She conducted several of the BPRS interviews herself and corated five tapes with each of the interviewers. Intraclass correlation coefficients between the first author and the raters ranged between .74 and 1.00 for all scale items.

Depression Anxiety Stress Scale

The Depression Anxiety Stress Scale (DASS; Lovibond and Lovibond, 1995) was used to measure patients' and relatives' GED. This instrument has been found to have excellent reliability and validity with both whites and minorities (e.g., African Americans, Hispanics) and has been widely used in both English and Spanish (e.g., Brown et al., 1997; Daza et al., 2002). While several other self-report scales of affective distress exist, none have been designed to measure depression, anxiety, and stress in one instrument. This 42-item scale was specifically developed for this purpose. Each item is rated on a 0 to 3 scale, with higher scores reflecting greater endorsement of that item. A reliability analysis indicated high α values for the overall 42-item scale (.96 for family members and .97 for patients). The scale can also be subdivided to assess depression, anxiety, and stress as separate subfactors of emotional distress. Exploratory and confirmatory factor analyses in past research have sustained the proposition of the three factors. Each subscale consists of 14 items. In this study reliability analysis indicated high α values for each subscale both for family members (depression = .94, anxiety = .89, and stress = .91) and for patients (depression = .94, anxiety = .90, and stress = .91).

Family Environment Scale

The FES was used to measure patients' and relatives' religious values and their perceptions of their family's cohesiveness. This scale was designed by Moos and Moos (1981) to measure family members' perception of their family environment. This is a 90-item true-false measure that includes nine subscales, all of which have been demonstrated to have adequate internal reliability. This scale has been widely used in both English and Spanish and has demonstrated adequate reliability among whites, African Americans, and Hispanics alike (e.g., McEachern and Kenny, 2002; Moos and Moos, 1981; Weisman and López, 1996).

The Cohesion subscale of the FES was used to assess family unity. This subscale consists of nine true-false items designed to measure the degree of commitment, help, and support family members provide for one another. Scores are coded such that lower scores for the sum of the nine items indicate greater family cohesion. Internal reliability using the Cronbach α was found to be .63 for both patients and relatives. Although adequate, this estimate is somewhat lower than the estimate of .78 found on this subscale by the scale's developers (Moos and Moos; 1981).

The Moral-Religious Emphasis subscale was used to measure moral and religious family values. This subscale also consists of nine true-false items designed to measure emphasis on ethical and religious issues and values in the family. Scores are coded such that lower scores for the sum of the nine items indicate greater moral religious emphasis in the family. A reliability estimate of .66 indicated adequate reliability for relatives but was somewhat low for patients (.49). Similar to family cohesion, Moos and Moos (1981) also reported the Cronbach α internal reliability coefficient for this subscale to be .78. Thus, our reliability estimates were somewhat lower than those found by the scale's developers.

RESULTS

Summary Statistics

Demographics

One-way ANOVAs with age as the dependent variable revealed no significant age differences among whites, Latinos, and African Americans for relatives ($F[2,54] = 2.04$; $p > 0.05$) or for patients ($F[2,44] = 2.03$; $p > 0.05$). Family members' ages ranged from 21 to 86 ($M = 54.33$; $SD = 14.43$). Patients' ages ranged from 19 to 63 ($M = 39.11$;

$SD = 11.32$). A one-way ANOVA did reveal significant ethnic differences in education ($F[2,54] = 4.46$; $p < 0.05$; lower numbers indicate greater education). Pairwise comparisons in Bonferroni-corrected post hoc analyses indicated that white Americans ($M = 3.35$; $SD = 1.18$) had significantly greater education than Latinos ($M = 4.67$; $SD = 1.59$; $p < 0.05$). African Americans ($M = 3.88$; $SD = 1.45$) fell in between the groups in educational attainment but were not statistically significantly different from either group. A one-way ANOVA revealed no differences in patient's current level of education ($F[2,44] = 2.81$; $p > 0.05$).

Initial Analyses

Table 1 presents means and *SD*s for GED, family cohesion, and religiosity, broken down by ethnicity. A series of one-way ANOVAs was conducted to assess whether there were any group differences in religiosity, family cohesion, and overall psychosocial well-being among our three ethnic groups. Results yielded no significant differences among ethnic groups for any of these three factors ($p > 0.05$ for all). Thus, contrary to hypotheses, Latinos did not endorse having more religious and unified families than did Anglo-Americans.

Table 2 presents zero-order correlations among family cohesion, religiosity, and GED for both patients and their family members. As expected, greater family cohesion was associated with less GED for both patients and their family members. Religiosity was not found to relate to patients' or family members' GED. Because religiosity did not relate to GED and because no ethnic differences in religiosity were

TABLE 2. Correlations Among Family Cohesion, Religiosity, and GED[a]

GED	
Family members	
Family cohesion	$r = .37**$
Religiosity	$r = .10$
Patients	
Family cohesion	$r = .37*$
Religiosity	$r = .08$

$*p < 0.05$; $**p < 0.01$.
[a]The FES is coded such that lower scores indicate increasing family cohesion and religiosity.

found, this variable was dropped from further analysis until it is evaluated in the context of patients' global psychiatric symptoms of schizophrenia.

Given that family cohesion was found to predict overall emotional well-being for both patients and their relatives, we also assessed how this variable related to the three specific dimensions of emotional well-being assessed by the DASS (depression, anxiety, and stress). Table 3 presents the intercorrelations between family cohesion and emotional well-being on each of the individual dimensions assessed by the DASS. This information is presented for both family members and for patients. As can be seen from the table, increasing perceptions of family cohesion was found to be associated with less depression, less anxiety, and less stress for both

TABLE 1. Means and *SD*s for GED, Family Cohesion, and Religiosity Broken Down by Ethnicity[a]

	Family members		Patients	
GED				
Whites	$M = 25.89$	$SD = 24.31$	$M = 41.19$	$SD = 35.48$
Latinos	$M = 25.05$	$SD = 20.39$	$M = 30.27$	$SD = 27.25$
African Americans	$M = 23.81$	$SD = 19.57$	$M = 42.71$	$SD = 31.36$
	$F = .04$; $p > 0.05$		$F = .70$; $p > 0.05$	
Family cohesion				
Whites	$M = 1.60$	$SD = 1.79$	$M = 1.93$	$SD = 1.73$
Latinos	$M = 2.19$	$SD = 1.69$	$M = 2.00$	$SD = 1.59$
African Americans	$M = 2.38$	$SD = 2.19$	$M = 2.07$	$SD = 2.23$
	$F = .87$; $p > 0.05$		$F = .02$; $p > 0.05$	
Religiosity				
Whites	$M = 3.20$	$SD = 1.96$	$M = 2.63$	$SD = 2.16$
Latinos	$M = 2.55$	$SD = 2.19$	$M = 2.27$	$SD = 1.16$
African Americans	$M = 2.88$	$SD = 2.06$	$M = 3.29.$	$SD = 1.64$
	$F = .49$; $p > 0.05$		$F = 1.31$; $p > 0.05$	

[a]The FES is coded such that lower scores indicate increasing family cohesion and religiosity.

TABLE 3. Correlations Among Family Cohesion and Depression, Anxiety, and Stress[a]

	Depression	Anxiety	Stress
Family members			
Family cohesion	$r = .32*$	$r = .34*$	$r = .35**$
Patients			
Family cohesion	$r = .36*$	$r = .39**$	$R = .34**$

$*p < 0.05$; $**p < 0.01$.
[a]The FES is coded such that lower scores indicate increasing family cohesion and religiosity.

patients and their family members. It should be noted that intercorrelations among depression, stress, and anxiety were all relatively high (ranging from .63 to .80 for relatives and .78 to .90 for patients). Thus, for the remainder of this study, these three subscales are integrated into one global measure of emotional well-being.

Correlates of GED

Our first set of primary analyses were aimed at examining the hypothesis that greater family cohesion would be associated with less GED for both patients and family members and whether there were any ethnic patterns in this association. Two hierarchical linear regression analyses, with GED as the criterion variable and ethnicity and family cohesion as the independent variables, were conducted. The three ethnic groups were converted into two dummy codes with Anglos designated as the anchor. Regressions were conducted separately for patients and for family members. The two dummy variables were entered in step 1, family cohesion was added in step 2, and the two family cohesion by ethnicity-dummy interaction terms were added in step 3.

As hypothesized, when family cohesion was entered in step 2, there was a significant R^2 change for both patients (R^2 change $= .14$; $p < 0.05$) and for family members (R^2 change $= .15$; $p < 0.01$), and family cohesion was found to be a significant predictor in both equations ($b = .37$ for patients; $b = .39$ for family members; $p < 0.05$ for both). For patients, no family cohesion by ethnicity interactions were found in step 3. Thus, for patients, greater family cohesion appears to relate to less GED, regardless of ethnicity. For family members, however, using the suggested criteria of Pedhazur (1997, p. 563), the change in R^2 associated with the addition of the family cohesion by ethnicity interaction term in step 3 was significant (R^2 change $= .08$; $p = 0.09$; to minimize type II error, Pedhazur [1997] suggests setting α between .10 and .25 for testing significant interaction effects).

The most direct and clearest manner of understanding this interaction is to look at the zero order correlations between family cohesion and GED separately for each ethnic group. Results indicate that the two were strongly

associated in the expected direction for African American ($r = -.76$; $p < 0.05$) and for Hispanic American family members ($r = -.51$; $p < 0.05$), but no relationship was found for Anglo-Americans ($r = -.03$; $p > 0.05$). In other words, the perception of one's family as unified and cohesive is directly associated with better psychosocial functioning for minority family members coping with schizophrenia but does not appear to be a predictor for mainstream Anglo-Americans.

Correlates of Psychiatric Symptoms

Our next set of analyses examined the relationship between patients' psychiatric symptoms (as rated from the BPRS) and patients' GED, family cohesion, and religiosity. As hypothesized, increasing GED was found to be associated with increasing global psychiatric symptoms of schizophrenia ($r = .66$; $p < 0.01$). Also as hypothesized, greater perceived family cohesion was associated with fewer global psychiatric symptoms ($r = .34$; $p < 0.05$). Religiosity was not significantly related to psychiatric symptoms ($r = .12$; $p > 0.05$).

Concordance Between Patient and Family Member Perceptions of Family Cohesion

Our third aim was to assess the association between patients' and their relatives' perceptions of family cohesion. Interestingly, no association was found between patients' and relatives' views of their family environment ($r = .06$; $p > 0.05$). Furthermore, patients' perception of family cohesion had no relationship to relatives' emotional well-being. Similarly, relatives perceptions of family cohesion did not predict patients' emotional well-being ($r = .04$; $p > 0.05$). Thus, emotional well-being appears to be tied to one's own perception of the family environment but does not seem to relate to the view of another person from the same family environment.

DISCUSSION

The central aim of this study was to examine factors associated with emotional distress in Anglo-American, Latino American, and African American patients and families with schizophrenia. In this study, we hypothesized that two factors, greater family unity and greater religiosity, would be associated with less GED. Study results indicated, as expected, that increasing perceptions of one's family as unified and cohesive are associated with less reported depression, anxiety, and stress for patients suffering from schizophrenia.

In this study, we also found some interesting ethnic patterns in the association between family cohesion and GED for family members of patients with schizophrenia. For ethnic minorities (African Americans and Latinos), family cohesion was strongly related to decreasing levels of GED. Interest-

ingly, however, no association was found between GED and family cohesion for whites. This finding may be viewed as support for earlier findings in the cross-cultural literature that indicate that self-construal (how one defines or view's oneself) is more tied to one's social roles and relationships in minorities, whereas it is more tied to being unique and successful in mainstream Anglo-Americans (Cross and Madson, 1997; Guarnaccia et al., 1992; Kashima et al., 1995; Lu Wang et al., 2000; Markus and Kitayama, 1991). Our findings, combined with those of other earlier studies, suggest that Anglo-Americans may not weigh the quality of interpersonal relations as heavily as other aspects of life (e.g., earning power, independent accomplishments) when determining their self-worth and consequently their emotional well-being. Thus, improving family relations may have a particularly beneficial impact on self-image and emotional distress for minorities.

Contrary to expectations, in this study, no ethnic differences in religiosity were found. This is surprising and appears to contradict earlier findings (Guarnnaccia et al., 1992; Moos and Moos, 1981; Weisman and López, 1996), suggesting that minorities often identify themselves as more religious than do Anglo-Americans. Also contrary to expectations, no relationships were found between religiosity, GED, and psychiatric symptoms. Thus, findings from this study do not support the views of either Reger and Rogers (2002) or Verghese et al. (1989) that greater religiosity may help patients and their relatives cope with schizophrenia more effectively. Nor are our findings consistent with the views of Siddle et al. (2002) that decreased psychopathology in schizophrenia may be associated with less need for religion. It is worth pointing out that the scale used to measure religiosity in this study (the Family Environment Scale) assesses specific religious attitudes and practices (i.e., "We don't say prayers in our family"). A relationship between religiosity and emotional distress may have more to do with spiritual interpretations/attributions for events (e.g., this illness is God's way of making me/my child stronger) rather than with adherence to specific religious practices. In a recent study of a sample of Hispanic relatives primarily designated as low in expressed emotion (a family indicator that has been found to be associated with favorable course of illness for patients with schizophrenia), Weisman et al. (2003) found that nearly half of the participants made one or more references to God or religion in discussing their relatives. A content analysis from this study indicated that nearly all statements suggested that participants were using religion in an adaptive manner by offering hope and comfort to the family (e.g., "I only ask God to give us patience to bear all this. To survive what comes up, right. What can we do? It's out of our hands. So, we have to be cool and calm to get through it"). Findings from the current study and the study

by Weisman et al. (2003) may indicate that existential types of coping mechanisms (e.g., trusting that God will give the family the strength and knowledge to cope with mental illness) may be more associated with well-being than are specific views (e.g., believing in explicit religious dogma) and behaviors (e.g., reading the Bible, going to church).

Research by Pargament et al. (1998, 2000; Phillips et al., 2002) also identified certain religious beliefs and behaviors as emotionally adaptive (e.g., forgiveness/purification, seeking religious support, and benevolent religious reappraisals), whereas other religious coping behaviors and beliefs appear to be maladaptive (e.g., religious apathy, anger at God, and a view of God as punishing and condemning). In short, the work of Pargament in conjunction with the findings of Reger and Rogers (2002), Verghese et al. (1989), Siddle et al. (2002), and the current study suggest that religion is a complex construct. Some aspects of religion may be healthy and associated with greater emotional functioning, while other aspects may be detrimental or unrelated to emotional functioning. Thus, when assessing religiosity in schizophrenia research, it may be more useful to include questions that assess how a person is religious rather than whether a person is religious, and to incorporate measures that tap a broad range of religious beliefs and behaviors.

Perhaps one of the most important findings in this study is that perceptions of one's family as unified and cohesive appear to be associated with better emotional well-being for patients and for Hispanic and African American family members dealing with schizophrenia, but not for whites. Perceiving one's family as supportive and cohesive also appears to be associated with fewer psychiatric symptoms in patients. These findings may be viewed as consistent with a growing body of research in an area referred to as expressed emotion (EE). Numerous EE studies indicate that patients with relatives who are designated as critical or hostile toward them (high-EE) have a poorer course of illness (see Butzlaff and Hooley, 1998 for review). These findings have been replicated with numerous ethnic and national groups around the world, yet interestingly, high-EE has been found more frequently among white relatives than among Hispanic relatives or relatives from other traditional cultures (see Weisman, 1997, 2004 for review).

Findings from the current study and from earlier EE studies suggest that clinicians should consider using family focused treatment interventions that directly target participants' views of their family as well as targeting relatives' expressed emotions and attitudes toward patients. The first author of this article is currently pilot-testing a family-focused treatment program for schizophrenia that includes directly focusing on family cohesion as one of five major intervention segments (Weisman, 2004). The family collec-

tivism segment is aimed at fortifying a strong sense of family unity and at helping members to view themselves as a team working toward a mutual goal. This treatment program also aims to reduce rates of high-EE. Findings from the current study suggest that clinicians working with severely mentally ill populations may wish to use this or similar family focused treatments with their patients.

Interestingly, in this study, we found no association between patients' and family members' perceptions of family unity. That is, the view of a patient with schizophrenia of his or her family environment does not appear to correspond with a relative's view (from the same family). In addition, while one's own perception of his/her family environment predicts emotional well-being, another relative's perspective (from the same family) appears to be irrelevant in predicting well-being. In a chapter entitled "Research methods with families," Jacob et al. (1999) argue that more research assessing correspondence across different family members is needed. Specifically, the authors urge researchers to evaluate the question, "To what degree do different family members describe family functioning in a similar fashion?" (p. 707) Our results indicate that family perceptions may be idiosyncratic (individual members may interpret the same family dynamic differently). For example, some family members may perceive heated discussions or arguments as a sign of family distress, whereas others may perceive them as a sign of intimacy or closeness.

Discrepancies in family cohesion scores may also indicate that individual family members conceptualize the physical make-up of their family differently. As an illustration, consider a family that includes a patient with the illness and her spouse. The spouse may, for example, interpret the word *family* to include only himself and his wife. When the patient and his wife are alone, they may interact in a tranquil and supportive manner. The patient, on the other hand, may conceptualize the term *family* broadly, and include her husband, her parents, her siblings, and her grandparents. When this extended family is together, frequent arguments and bickering may ensue. Thus, it is not hard to see how the physical composition and the emotional climates of these two perceptions of family may differ. On the FES (used in this study), participants are instructed to answer a series of questions about their family, yet the term *family* is never defined. Additional research that specifically evaluates who participants are including in their perception of family is needed to help to clarify this issue.

In summary, results from this study suggest that there may be little relationship between two members of the same family's perceptions of family cohesion. Findings also indicate that it is a person's own impressions that appear to be associated with mental health, while another family member's view appears to be unrelated to one's own GED. Thus, following the recommendation of Jacob et al. (1999), it

appears essential that clinicians attain separate assessments from each individual member when working with families. Furthermore, in addition to trying to change or enhance the actual functioning of a family, directly targeting perceptions may also enhance the emotional well-being of family members. In other words, time spent on reframing family members' perceptions of family unity and strengths may be just as effective, or more effective, than exercises aimed at actually changing family dynamics.

Study Limitations

Like most research, this study is marked by several limitations. First, the sample size is small, particularly impacting tests in which the sample is subdivided to examine ethnic patterns. Furthermore, the design is cross-sectional, and the small sample size does not allow us to test causal models using statistical techniques such as structural equation modeling. This makes it hard to interpret certain study findings. For example, study results indicate that family cohesion and GED are related, but it is unclear whether there is a causal relationship. Does greater GED make one more pessimistic and likely to view experiences, including one's family environment, more negatively? Does having a supportive and cohesive family help reduce emotional distress by providing social and practical support? Are perceptions of family cohesion and GED both indirectly related through some other factor (e.g., optimism)? Future research is needed with larger samples of men and women from diverse ethnic groups to assess and clarify these and other related questions further (e.g., the role of gender and family functioning in schizophrenia). Studies with longitudinal designs would be especially helpful in assessing and teasing apart causal relationships among family cohesion, GED, and patient psychiatric symptoms.

Another study limitation is that we did not assess for mental illness in family members. Base rates from several existing studies indicate that approximately 10% to 15% of first-degree biological family members in this study would likely also have a major mental illness (American Psychiatric Association, 1994; King, 1990). Future research that examines how relatives' own pathology may interact with their perceptions of family unity and their emotional well-being is needed.

Finally, although in this study we ruled out cases that appeared to be of questionable or inappropriate diagnosis during a prescreening phone interview, we did not conduct a formal entrance interview with patients to verify their psychiatrists' report of schizophrenia. Fortunately, schizophrenia is one of the Axis I DSM-IV mental disorders with the strongest interrater consensus among professionals, with reliability of diagnoses comparable with those of many medical disorders (Bertelsen, 2002; Owens, 2000). Thus, we feel reasonably assured that all of our partici-

pants met study criteria. Nonetheless, the methodology of future studies in schizophrenia will be strengthened by screening study participants with a psychometrically validated diagnostic entrance interview. The Present State Examination (Wing et al., 1974) and the psychosis section of 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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