

# The Feasibility of a Culturally Informed Group Therapy for Patients With Schizophrenia and Their Family Members

Jessica Maura and Amy Weisman de Mamani  
University of Miami

Research suggests that group-based psychosocial treatments for schizophrenia provide benefits to patients and family members alike. However, few existing treatments consider cultural factors that may enhance their efficacy with diverse populations. The current study examined the feasibility of a culturally informed group therapy for schizophrenia (CIGT-S), which incorporates collectivistic principles and spiritual coping into the treatment protocol. The feasibility of the group protocol was tested by examining differences in patient symptom severity and patient and family member depression, anxiety, and stress after completion of the group program. Within-groups analyses were conducted comparing baseline data to group termination data from 12 patients and 11 family members. Additionally, between-groups analyses were conducted comparing waitlist termination data from 20 patients and 13 family members to group termination data from 12 patients and 11 family members. Finally, we examined participant satisfaction with the group protocol, including qualitative reports on components of the protocol that participants deemed most valuable. Results indicated that patients demonstrated lower levels of symptom severity upon completion of the CIGT-S program; however, no other significant effects were found. Results examining overall patient and family member satisfaction with the treatment protocol indicated that patients and family members both reported being highly satisfied by the treatment program. This was also represented in participant's open-ended responses to our satisfaction questionnaire. These findings indicate that CIGT-S may represent a feasible, cost-effective approach that can be flexibly used with patients and family members of diverse racial and ethnic backgrounds.

*Keywords:* schizophrenia, culture, group therapy

Schizophrenia is a chronic and debilitating psychiatric disorder that is associated with significant impairments in patient's social, psychological, and occupational functioning (Freeman et al., 2014; Pinkham et al., 2012) as well as significant psychological distress among family members (Mitsonis et al., 2012). Despite the disabling impact of schizophrenia on patients and family members alike, very few patients and family members receive any mental health services (Drake & Essock, 2009). To address this growing need, recent research has examined the potential utility of group-based interventions which have been deemed not only efficacious, but more time and cost-effective than other psychotherapeutic interventions, as they allow multiple individuals to be treated simultaneously and inherently serve to promote interpersonal relationships and expand upon available social supports (Lockwood, Page, & Conroy-Hiller, 2004; Perkins & Repper, 2003; Segredou et al., 2012).

Although traditional group-based interventions for schizophrenia, such as cognitive-behavioral therapy, psychoeducational therapy, and multifamily group therapy, have demon-

strated promise (for comprehensive reviews see Lyman et al., 2014; Segredou et al., 2012), these interventions subscribe to Western-based models of mental illness and therefore do not consider cultural factors which may impact service delivery and outcomes (Barrio & Yamada, 2010; Benish, Quintana, & Wampold, 2011). This critique of traditional approaches, in combination with the expanding ethnic diversity of the United States, has spurred initiatives to integrate cultural perspectives into mental health systems (APA, 2013; Hall, 2001; Stepick, Stepick, & Vanderkooy, 2011; US Department of Health and Human Services, 2003). As recent research has indicated that culturally adapted interventions may be more effective than traditional, one-size-fits-all approaches (Benish, Quintana, & Wampold, 2011; Griner & Smith, 2006), momentum has developed to examine the potential efficacy of culturally adapted interventions for schizophrenia (APA, 2013; US Department of Health and Human Services, 2003).

We have developed a culturally informed group therapy for schizophrenia (CIGT-S) with the primary aim of reducing patient symptom severity and improving patient and family member's psychological well-being. This group intervention was adapted from a family-focused culturally informed therapy for schizophrenia (CIT-S; Weisman, Duarte, Koneru, & Wasserman, 2006; Weisman de Mamani, Weintraub, Gurak, & Maura, 2014), which incorporated discussions of collectivism and spirituality/religion into the family-focused treatment developed by Falloon, Boyd, and McGill (1984) and Miklowitz and Goldstein (1997). Although the CIT-S and CIGT-S programs are identical

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Jessica Maura and Amy Weisman de Mamani, Department of Psychology, University of Miami.

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Correspondence concerning this article should be addressed to Jessica Maura, Department of Psychology, University of Miami, 5665 Ponce De Leon Boulevard, Coral Gables, FL 33146. E-mail: [Jmaura2@gmail.com](mailto:Jmaura2@gmail.com)

in content, the CIT-S program was more individualized in nature, as it was administered to individual families consisting of at least one patient and one family member. As such, this format allowed for specific tailoring of the intervention to the cultural beliefs and values of the individual family. The CIGT-S program, on the other hand, was offered as an open group in which patients and/or family members of diverse racial/ethnic backgrounds could come together to discuss intervention materials and share their personal experiences and insights with other community members.

The CIGT-S intervention was intended to provide a flexible and adaptable intervention that can be applied to any cultural group. As such, the content of the current intervention was meant to be molded to the values, beliefs, and practices of the individual. We consider this approach to be an essential component of applying a culturally informed intervention to a group setting, in which members may identify as belonging to a variety of cultural groups, and even members who report similar racial/ethnic identities (e.g., Hispanic/Latino) may endorse different values, beliefs, and perspectives. Thus, when discussing culturally relevant information, group members were asked to educate group facilitators on their personal cultural beliefs and values, and how these perspectives have impacted their experience of having schizophrenia, or having a relative with schizophrenia. The cultural diversity of the group also allowed for comprehensive discussions of culturally relevant material, including the role that spirituality/religiosity and familial involvement played in participant's coping with the illness. These broad topics appear to be relevant across racial/ethnic groups as literature suggests that collectivistic orientations and spiritual/religious coping may be linked to better mental health among both minority and nonminority patients and family members (for a comprehensive review on this topic see [Maura & Weisman de Mamani, 2017](#)). Thus, the incorporation of these broad topics into the protocol allowed for increased generalizability across cultural groups, as all participants were able to share in eclectic but inclusive discussions of the personal relevance of these constructs in the management of schizophrenia.

Recent research has demonstrated promising evidence regarding the efficacy of the CIT-S program, including reductions in patient symptom severity and caregiver burden ([Weisman de Mamani et al., 2014](#); [Weisman de Mamani & Suro, 2016](#)). Given that group programs are considered not only effective but financially efficient, adapting the CIT-S program to a group format represented an opportunity to test the feasibility of a broader program that could be run indefinitely and utilized in community settings. Considering the limited availability of mental health services for those impacted by schizophrenia, we believe that group-based adaptations of culturally informed treatments, like CIT-S, may increase the availability and accessibility of services for this population. The current study is therefore distinctive in that it is the first empirical paper to examine the feasibility of adapting the CIT-S program to a group format. To test the feasibility of the group protocol, we examined differences in patient symptom severity and patient and family member self-report ratings of depression, anxiety, and stress after completion of the group program. We also examined participant satisfaction with the group protocol, including qualitative reports on components of the protocol that participants deemed most valuable.

## Culturally Adapted Group Interventions for Schizophrenia

[Bernal and colleagues \(2009\)](#) define a cultural adaptation as, "The systematic modification of an evidence-based treatment (EBT) or intervention protocol to consider language, culture, and context in such a way that it is compatible with the client's cultural patterns, meanings, and values." Various cultural constructs have been identified in the literature base as particularly important to consider when attempting to integrate culture into an existing EBT, including spirituality/religiosity and collectivism ([Hall, 2001](#)).

The use of spiritual/religious beliefs to cope with symptoms of schizophrenia and the ongoing recovery process has been linked to better quality of life ([Shah et al., 2011a, 2011b](#)), lower psychiatric symptoms ([Mohr, Brandt, Borrás, Gilliéron, & Huguelet, 2006](#)), and lower ratings of depression and anxiety ([Rosmarin et al., 2013](#)) among patients with schizophrenia, as well as increased well-being ([Rammohan, Rao, & Subbakrishna, 2002](#)), quality of life ([Duarte, 2010](#)), and self-care ([Murray-Swank et al., 2006](#)) among caregivers of individuals with schizophrenia. Relatedly, collectivistic ideals, which emphasize the family as a priority above the self, have been linked to better mental well-being ([Rodríguez, Mira, Paez, & Myers, 2007](#); [Schwartz et al., 2010](#)), lower relapse rates ([Lopez et al., 2004](#)), and fewer psychiatric symptoms ([Weisman, Rosales, Kymalainen, & Armesto, 2005](#)) among patients, as well as lower ratings of depression, anxiety, and stress ([Weisman, Rosales, Kymalainen, & Armesto, 2005](#)), better psychological health ([Magaña & Smith, 2006](#)), and lower levels of subjective burden ([Weisman de Mamani & Suro, 2016](#)) among caregivers. The inclusion of these constructs into culturally adapted group interventions for schizophrenia has also received some empirical support. Specifically, group interventions integrating collectivistic values and spirituality/religiosity into traditional psychoeducational groups have shown benefits for patients and family members of Chinese ([Chien & Wong, 2007](#)), Latino ([Barrio & Yamada, 2010](#)), and African ([Agara & Onibi, 2007](#)) descent. Thus, it appears that these socio-cultural variables have the potential to play protective roles for individuals with schizophrenia as well as their caregivers, and therefore may be important to target in interventions directed toward this population.

## A Culturally Informed Group Therapy for Schizophrenia

CIGT-S is a fully manualized treatment protocol which consists of five modules, each lasting three weeks, for a total of 15 weeks. The CIGT-S group was offered once per week and lasted ~90 min. The treatment protocol combined techniques that have previously been found to be effective among patients with schizophrenia and their family members, such as psychoeducation, communication training, and problem solving, with culturally specific components, including collectivism and spiritual coping, which have also been predictive of positive mental health outcomes ([Krok, 2014](#)). The treatment modules include family collectivism, psychoeducation, spiritual coping, communication training, and problem solving. Detailed descriptions of each treatment segment are provided below. Throughout the CIGT-S program, it is important to note that the intervention modules described below were tailored to best meet the needs of the participants. Specifically, though treatment

handouts were provided to all participants, the information on these handouts was discussed in detail as a group, with members having the option to read, write, or discuss the content depending on their personal preference. Similarly, homework assignments were adapted to best fit the needs of the participants. For example, participants were provided the option to bring in readings or writings, audio files (e.g., voice recordings, music) or even images which were personally relevant and related to session content.

### Family Collectivism

The primary aim of the family collectivism module is to fortify a strong sense of unity and cohesion, and to help group members view each other as members of a team working toward a unified goal (Weisman, 2005; Weisman et al., 2006; Weisman de Mamani et al., 2014). In the first session, all participants are commended for coming to treatment, an action that indicates their commitment to their own and their loved one's wellbeing. Group members are then asked to share their goals in attending therapy, and commonalities, such as improving the patient's well-being, improving family functioning, and gaining a better understanding of the illness, are pointed out. Group members then share in a discussion of their perceptions of their role within their family, including how they contribute to their family system, and discuss their current satisfaction or dissatisfaction with that role. Any relevant generational and gender roles or hierarchies within the family are also discussed and shared within the group setting. During this module, several homework assignments are given to group members, including writing and sharing personal narratives regarding one's role and how they would like to adapt or alter their role to improve family functioning, as well as preparing discussions of specific behaviors in family members that enhance family functioning, and behaviors that may be altered to improve family functioning. Throughout these sessions, the commonalities between family members, and group members as a whole, are identified, and differences are deemphasized, as a means to enhance unity within the family system and the group.

### Psychoeducation

The second module, psychoeducation, was largely pulled from prior work by Falloon, Boyd, and McGill (1984) and Miklowitz and Goldstein (1997). The purpose of this module is to provide information regarding the symptoms of schizophrenia, the known causes of the illness (including genetic, neurobiological, and environmental factors), established treatments for the disorder, and the impact of the family environment and stress on illness progression (Weisman, 2005; Weisman et al., 2006; Weisman de Mamani et al., 2014). In this segment, the construct of expressed emotion, a measure of the family environment characterized by criticism, hostility and emotional overinvolvement, and its detrimental impact on patient prognosis is discussed. The harmful effect of substance use on relapse and prognosis is also discussed. Throughout these discussions, care is taken to assess any feelings of guilt members may have regarding their role in causing the disorder. Through psychoeducation, therapists work to refute any misconceptions regarding their role in causing the disorder and shift focus to ways family members can help patients cope with the illness, such as encouraging medication adherence, discouraging

substance use, and maintaining a low stress home environment (Weisman, 2005).

### Spiritual Coping

The aim of the spiritual coping module is to foster spiritual or existential beliefs that may aid in coping with the illness (Weisman, 2005; Weisman et al., 2006; Weisman de Mamani et al., 2014). Throughout these sessions, group members share their spiritual/religious beliefs (or disbeliefs), notions of morality, and their perceptions of the meaning of life. Group members also discuss participation in spiritual/religious communities, support networks, and practices that they have or would like to engage in. Practices such as kindness, empathy, forgiveness, and appreciation are also discussed in these sessions. Homework assigned in this module includes engaging with a spiritual/religious practice (e.g., attending a religious service, meditation, volunteering, and prayer) and selecting a spiritual/religious reading relevant to coping with mental illness to share with the group. During these sessions, therapists work to reframe any maladaptive uses of spirituality/religion, such as the belief that mental illness is a punishment from God for a prior wrongdoing. In these instances, the therapists guide group members to use their spiritual/religious beliefs adaptively and may share sayings such as, "God uses struggles to build virtue and patience" (Weisman, 2005). In these sessions, therapists do not attempt to steer group members toward any particular spiritual/religious orientation. At the beginning of this module, all group members are asked about their spiritual/religious identification. In the event that a group member identifies as nonreligious, a parallel set of handouts that focuses on philosophical beliefs and spiritual practices is provided to this participant, and homework assignments are adapted similarly to better address their personal values. Relatedly, among patients with spiritual/religious delusions, the parallel existential handouts are utilized.

### Communication Training

The fourth module, communication training, was also largely pulled from prior work by Falloon, Boyd, and McGill (1984) and Miklowitz and Goldstein (1997). The aim of this module is to teach group members skills that will allow them to communicate clearly and efficiently as a means to foster a low key supportive home environment. Specific communication skills including active listening, expressing positive feelings, making positive requests, and expressing negative feelings about specific behaviors. In session, discussion and role-play are utilized to teach skills, and group members are asked to rehearse the skills learned outside of the group setting for homework.

### Problem Solving

The fifth and final module, problem solving, was similarly adapted from prior work by Falloon, Boyd, and McGill (1984) and Miklowitz and Goldstein (1997). The goal of this module is to teach group members specific techniques to assist them in improving their problem solving abilities. Group members are taught to identify and agree upon the problem at hand, brainstorm several possible solutions to the problem, discuss the pros and cons of each solution, and choose the best solution (or combination of solu-

tions). Group members are asked to plan and carry out their chosen solution(s) for homework, and to come to group prepared to discuss the success of the solution, or any issues that arose. Through this module, group members are provided the opportunity to work through problems that have been identified in the earlier sessions, and to view these challenges as external problems that through teamwork are amendable to change.

### The Current Study

The current study aimed to examine the feasibility of the CIGT-S protocol by examining differences in patient symptom severity and patient and family member depression, anxiety, and stress after completion of the group program. We also examined participant satisfaction with the group protocol, including qualitative reports on components of the protocol that participants deemed most valuable. The feasibility of the CIGT-S protocol was examined by looking at differences in symptom severity and self-report ratings of depression, anxiety, and stress both within (comparing baseline and termination data) and between groups (comparing group termination and waitlist termination data). We hypothesized that patients who completed the CIGT-S protocol would demonstrate lower levels of symptom severity and lower levels of depression, anxiety, and stress compared to their functioning at baseline. Similarly, we hypothesized that family members who completed the CIGT-S protocol would demonstrate lower levels of depression, anxiety, and stress compared to their

functioning at baseline. We expected no changes in functioning between baseline and termination scores for patients and family members assigned to the waitlist condition. Second, we compared the CIGT-S treatment group and the waitlist group at termination (controlling for baseline scores). We hypothesized that patients who completed the CIGT-S protocol would demonstrate lower psychiatric symptoms, and that patients and family members would demonstrate lower levels of depression, anxiety, and stress compared to patients and family members assigned to the waitlist control condition.

### Method

#### Sample

A total of 150 participants were enrolled in the CIGT-S program, including 106 patients with schizophrenia (71%) and 44 family members of patients with schizophrenia (29%). Of those enrolled, a total of 33 participants completed the waitlist termination assessment, including 20 patients (61%) and 13 family members (39%), and a total of 23 participants completed the group termination assessment, including 12 patients (52%) and 11 family members (48%). See Figure 1 for a chart outlining the flow of participants through each phase of the study. Patients were primarily male (75.2% male, 24.8% female) with a mean age of 43.5 ( $SD = 10.02$ ) and on average, had been diagnosed with schizo-

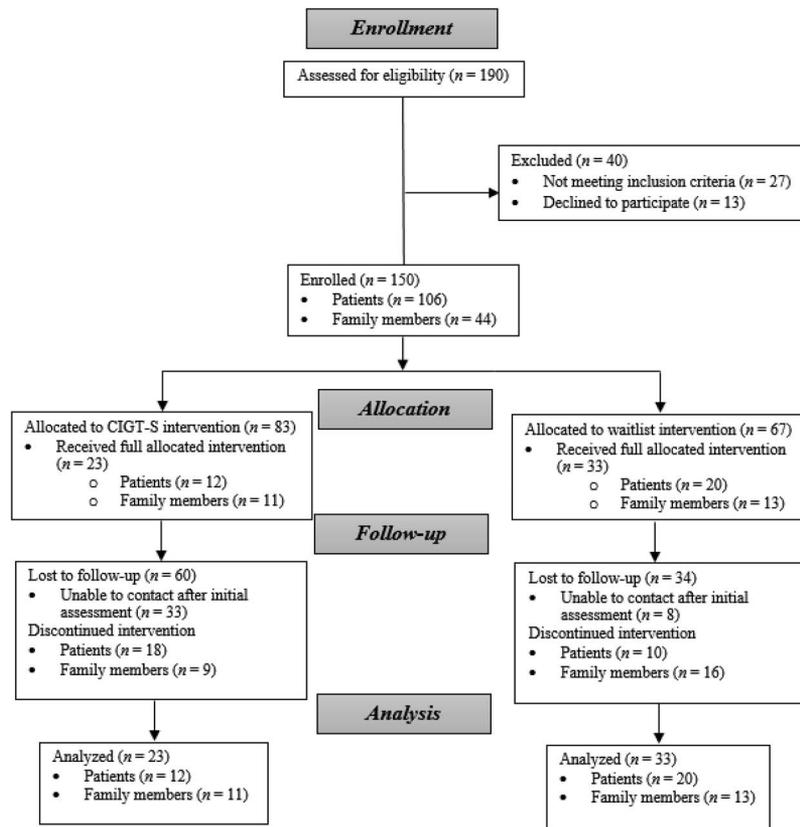


Figure 1. CONSORT flow diagram.

phrenia for  $\sim 18.47$  years ( $SD = 11.74$ ). Patients self-identified their ethnicity as Caucasian (17.7%), African American (51.3%), Hispanic (26.5%), or Other (1.8%). Three patients had missing data for ethnicity (2.7%). Family members were mostly female (46% male, 54% female) with a mean age of 49.22 ( $SD = 13.48$ ). Family members self-identified their ethnicity as Caucasian (30%), African American (20%), Hispanic (38%), Asian American (2%), or Other (6%). Two family members had missing data for ethnicity (4%). Family members identified themselves as mothers (32%), fathers (16%), significant others (6%), children (14%), siblings (18%), or other relatives, such as aunts or nephews (14%). Approximately 1/3 of patients (34.1%) and family members (31.3%) reported some prior experience with support groups, with prior support group involvement including consumer run support groups, NAMI (National Alliance on Mental Illness) groups, family support groups, support groups specific to various medical and mental health diagnoses (e.g., HIV/AIDS, substance abuse), and religiously oriented support groups. Participants were also not restricted from participating in concurrent psychotherapy during the course of the current treatment trial as a means to simulate real-world settings. Of those enrolled in the current protocol, 39.2% of patients reported receiving concurrent individual therapy, 31.8% reported receiving concurrent group therapy, 2% reported receiving concurrent family therapy, and 19.4% reported engagement in a consumer run support group. Similarly, 15.2% of family members reported receiving concurrent individual therapy, 10.9% reported receiving concurrent group therapy, 3% reported receiving concurrent family therapy, and 10.6% reported engagement in a consumer run support group. Although patients were encouraged to regularly take their psychiatric medications and medication compliance was a major focus of education, we did not formally manage patient's medication regimen or adherence. Regarding therapist data, a total of nine graduate-level therapists (33.3% male, 66.7% female) with a mean age of 25.89 ( $SD = 2.62$ ) co-led the CIGT-S groups during the 4-year study period. Therapists self-reported their ethnicity as Caucasian (33.3%), Hispanic (55.6%), and Asian American (11.1%).

## Procedures

Participants were recruited via advertisements on Miami's above ground rail station, local newspapers, radio advertisements, and local hospitals. An initial phone screen was completed with all participants to assess eligibility. To be eligible, patients had to be diagnosed with schizophrenia or schizoaffective disorder. Patients were excluded if they did not meet diagnostic criteria for schizophrenia or schizoaffective disorder, if they had been psychiatrically hospitalized within three months prior to enrollment, and if they had received a score of 6 ("Severe") or 7 ("Extremely Severe") on the psychotic items of the Brief Psychiatric Rating Scale (BPRS; Lukoff, Nuechterlein, & Ventura, 1986; Overall & Gorham, 1962). In the cases of recent psychiatric admission or high levels of symptomatology, research indicates that cognitive-behavioral approaches may not be appropriate for treating acute exacerbations of symptoms (Tarrier & Wykes, 2004), and that instead patients in this phase of illness may be better managed by more comprehensive care (e.g., medication management, prevention of harm, provision of a structured and predictable environment; Lehman et al., 2004). As such, in these instances, patients were provided with local referrals and were invited to return to the treat-

ment trial upon further stabilization (i.e., when psychotic items on the BPRS fell at or below a 5 indicating "Moderately Severe"). Family members were eligible if they had regular contact (defined as a minimum of 1 hour or more per week over the last 3 months) with a patient diagnosed with schizophrenia or schizoaffective disorder. Family members were defined as a biological relative, step-relative, or a significant other.

If participants appeared to be eligible, they were scheduled to complete a baseline assessment interview. At the initial meeting, all participants read and signed an informed consent form in which they were informed of the study process and randomization procedure, as well as their right to discontinue participation in the study at any time without penalization. At this time, patients' diagnosis of schizophrenia or schizoaffective disorder was confirmed with the Structured Clinical Interview for the *DSM-IV*, Patient Edition (SCID-I/P, First, Spitzer, Gibbon, & Williams, 2002). Assessments lasted  $\sim 3$  hours and were conducted in the participant's preferred language (English or Spanish), which was identified during the initial phone screen. In the current study, we did not assess for comorbid diagnoses for several reasons. Primarily, psychiatric comorbidities were not included as exclusion criteria as research indicates that over 50% of individuals with schizophrenia have at least one comorbid mental health disorder (Tsai & Rosenheck, 2013), with rates of comorbidity at  $\sim 50\%$  for depression, 47% for substance abuse, and 29% for posttraumatic stress disorder (Buckley, Miller, Lehrer, & Castle, 2009). As such, limiting enrollment among individuals with psychiatric comorbidities would have significantly limited the ecological validity and generalizability of our results. Second, as our baseline assessment was extensive (lasting  $\sim 3$  hours), we did not include additional SCID-I/P modules as a means to reduce participant burden during the assessment procedure. Trained bilingual graduate students or undergraduate research assistants completed the assessments in interview format (all measures were read to participants) to control for differences in reading proficiency. All participants were compensated with \$25 for their time.

Upon completion of the baseline assessment, participants were randomized to enter the CIGT-S program immediately, or were randomized to a 15-week waitlist control condition. Participants randomized to the waitlist control condition were permitted to join the group program after completing a waitlist termination assessment. All participants completed a termination assessment after completing 15 weeks of the CIGT-S treatment protocol. Participants who completed the group termination assessment were permitted to continue attending the group, however additional data was not collected beyond the termination assessment.

Therapist training involved reading the treatment manual and watching tapes of prior sessions. All groups were co-led by graduate-level therapists and all therapists received weekly supervision by a Ph.D. Licensed Clinical Psychologist who was the creator of both the CIGT-S and CIT-S (individual family focused) treatment protocols. During supervision (which included regular review of group session tapes), therapists' fidelity to the treatment protocol was closely monitored and group content was discussed. Over the entire course of the study, a total of nine graduate-level therapists were involved in cofacilitating the group; however, only two group leaders were active at one time. Although formal assessment of treatment fidelity was not assessed in the CIGT-S group, a prior study using the same therapists examined therapist competence and adherence to the individual family-focused CIT-S program by

rating 69 videotaped sessions from the first 23 families who entered the program (see Carlson & Weisman de Mamani, 2010) using a variant of the Therapist Competency Adherence Scale (Weisman, Nuechterlein, Goldstein, & Snyder, 1998). This measure included a manual and assessed recommended and proscribed therapist behaviors within the CIT-S (active treatment) and Psycho-Ed (control) conditions using a 7-point scale (1 = "poor", 7 = "excellent"). Overall, this study found that therapists demonstrated excellent ( $M = 6.29$ ,  $SD = .45$ ) competence and adherence to the treatment protocol (Carlson & Weisman de Mamani, 2010).

### Translation of Measures

Assessments were conducted in English or Spanish, depending on the participant's preference. An editorial board was utilized to translate all measures from English to Spanish. Members of the editorial board included the principal investigator (Amy Weisman de Mamani), a nonnative Spanish speaker, and native Spanish speakers of Cuban, Nicaraguan, Costa Rican, Columbian, Mexican, and Puerto Rican descent. First, all measures were translated to Spanish by a native speaker of Cuban descent. Then, all members of the editorial board independently reviewed and compared the translations to their original English versions. The editorial board then discussed any discrepancies in the Spanish translations that were identified, and worked together to create language-generic versions of the measures that would be understood by a wide range of Spanish-speaking individuals. All measures were reviewed again by the editorial board, and additional discrepancies were discussed until a consensus was reached that all measures were language generic, captured the constructs intended by the measures, and were analogous to the English versions.

### Measures

**Diagnostic confirmation.** The SCID-I/P (Version 2.0), Psychotic Symptoms Module (First et al., 2002) is a semistructured diagnostic interview that was used to confirm lifetime criteria for a schizophrenia or schizoaffective disorder diagnosis. The SCID-I/P has demonstrated high interrater reliability and diagnostic accuracy (Ventura, Liberman, Green, Shaner, & Mintz, 1998). In the current study, interrater reliability was determined by having all interviewers and the study's principal investigator (Amy Weisman de Mamani) watch and independently rate six videotaped SCID-I/P interviews to determine an overall diagnosis. Interrater agreement using Cohen's Kappa was 1.0, indicating perfect agreement among all interviewers regarding the presence or absence of a schizophrenia/schizoaffective disorder diagnosis.

**Symptom severity.** The BPRS (Lukoff, Nuechterlein, & Ventura, 1986; Overall & Gorham, 1962) is a 24-item semistructured interview that was used to determine the severity of patient symptomatology at baseline and termination assessments. The BPRS evaluates the following areas: unusual thought content, hallucinations, conceptual disorganization, depression, suicidality, self-neglect, bizarre behavior, and hostility. Items are assessed using a 7-point Likert rating scale with 1 indicating "Not Present" and 7 indicating "Extremely Severe". Total BPRS scores are obtained by summing patient scores on all 24 items, with higher overall scores indicating greater symptom severity. The BPRS has demonstrated high interrater reliability by the scale's creators (Ventura, Green,

Shaner, & Liberman, 1993) and good interrater reliability in a prior study done by the principal investigator, with a Cronbach's alpha ranging from .74 to 1.00 on all scale items (Weisman de Mamani et al., 2014). The principal investigator (Amy Weisman de Mamani) demonstrated reliability with Dr. Joseph Ventura who created the BPRS training and quality assurance program at the University of California, Los Angeles. The principal investigator trained all graduate student interviewers. In the current study, interrater reliability was determined by having all interviewers code six training tapes selected by Dr. Joseph Ventura. Intraclass correlations between interviewers and consensus ratings of Dr. Ventura ranged from .79 to .98 for total BPRS scores. In the current study, the BPRS demonstrated good reliability (Cronbach's alpha = .81).

**Depression, anxiety, and stress.** The Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995) is a 42-item scale that was used to measure patient's and family member's overall levels of depression, anxiety, and stress. Items are rated using a 4-point Likert scale, with 0 indicating "Did not apply to me at all" and 3 indicating "Applied to me very much, or most of the time". Total DASS scores were obtained by summing scores on all 42 items, with higher overall scores indicating greater self-reported depression, anxiety, and stress. Items capturing ratings of depression include, "I felt sad and depressed," and "I couldn't seem to experience any positive feeling." Items capturing ratings of anxiety include, "I felt scared without any good reason," and "I felt that I was using a lot of nervous energy." Finally, items capturing ratings of stress include, "I found it difficult to relax," and "I found it hard to wind down." Prior literature in schizophrenia has demonstrated high overall (Cronbach's alpha = .96 for family members, .97 for patients) and individual subscale (depression Cronbach's alpha = .94, anxiety Cronbach's alpha = .89-.90, stress Cronbach's alpha = .91) reliability estimates for the DASS (Weisman et al., 2005). In the current study, the DASS demonstrated high overall reliability estimates for both patients (Cronbach's alpha = .98) and family members (Cronbach's alpha = .97).

**Consumer satisfaction.** At the end of each group session, a 7-point Likert scale, with 1 indicating "Very dissatisfied" and 7 indicating "Very Satisfied" was given to assess participant's satisfaction with each individual group therapy session. Satisfaction ratings from each group therapy session were averaged and overall means were analyzed to examine consumer satisfaction with the treatment protocol. In addition, participants provided open-ended responses to the following questions: "What did you think of today's session? What would you like to focus on in the next session? Please provide any additional comments if you wish?"

### Statistical Analyses

All statistical analyses were conducted using SPSS Statistics software, Version 22. All study variables were examined for normality and outliers. Normality was examined using Kline's (2005) criteria, such that a variable was deemed to have a non-normal distribution when the absolute value of the skew index is greater than 3 and the absolute value of the kurtosis index is greater than 8. Relationships between demographic variables (age, gender, ethnicity) and dependent variables (symptom severity, depression/anxiety/stress) were examined as potential covariates prior to conducting primary analyses. An independent samples *t* test was used to test gender differences and a one-way ANOVA

was used to test differences between ethnic groups on variables of interest. For the continuous demographic variable (age), a Pearson correlation coefficient was calculated and tested for significance. The primary analyses aimed to examine differences in patient symptom severity and patient and family member depression, anxiety, and stress after completion of the group program. A series of one-way analysis of covariances (ANCOVAs) was used to evaluate differences in means on patient symptom severity and patient and family member depression/anxiety/stress both within (mean difference between baseline and group termination assessments) and between (mean differences between group termination and waitlist termination) groups (controlling for baseline scores).

## Results

### Preliminary Analyses

All variables were within normal limits and therefore no transformations were conducted. Missingness within the primary outcome variables was assessed to determine whether missing data was missing at random. All missing data was found to be missing completely at random, indicating that no systematic missingness existed within the data, Little's MCAR Test Chi-Square = 2272.39 ( $df = 21.92, p = .113$ ). No significant relationships were found between demographic variables (age, gender, ethnicity) and dependent variables (symptom severity, depression/anxiety/stress). Patients and family members who were randomized to either enter the group immediately or enter the group after the waitlist period were designated as "non-completers" if they attended at least one group session but did not complete the treatment or termination assessments. Results indicated that there was a significant amount of attrition (65% of patients, 58% of family members) within the current sample. However, among patients, a chi square test indicated that no significant differences existed between the treatment groups on attrition, with 18 (53%) patients dropping out of the group condition and 10 (45%) patients dropping out of the waitlist condition,  $\chi^2(1) = .29, p = .58$ . With respect to family members, a chi square test also indicated no significant differences between the treatment groups on attrition, with 9 (41%) family members dropping out of the group condition, and 16 (53%) family members dropping out of the waitlist condition,  $\chi^2(2) = 1.94, p = .38$ .

### Primary Analyses

Our primary analyses examined differences in patient symptom severity and patient and family member depression, anxiety, and stress after completion of the group program. Interpretations of effect sizes were determined using guidelines from Cohen (1988). Results indicated that there was a significant mean difference in patient symptom severity within groups, such that patient symptom severity scores decreased between the baseline ( $M = 55.16, SE = 1.28$ ) and group termination ( $M = 46.59, SE = 3.79$ ) assessments ( $M$  difference = 8.57,  $SE = 4.02, p < .05$ ) with a medium effect size (Cohen's  $d = .66$ ). Results examining patient symptom severity between groups indicated that no significant differences were found between the group termination ( $M = 46.59, SE = 3.79$ ) and waitlist termination ( $M = 53.23, SE = 2.99$ ) groups ( $M$  difference = -6.64,  $SE = 4.83, p > .05$ ). Although the mean difference between these groups was not significant, a medium

effect size was observed (Cohen's  $d = .51$ ), indicating that non-significant results may have been due to limited power associated with a small sample at follow-up. Next, an ANCOVA was used to evaluate the differences in means on patient depression/anxiety/stress, again examining differences both within (mean difference between baseline and group termination assessments) and between (mean differences between group termination and waitlist termination) groups. Results indicated that no significant differences were found between patient baseline depression/anxiety/stress ( $M = 47.54, SE = 3.54$ ) and group termination depression/anxiety/stress ( $M = 30.91, SE = 10.37$ ) scores ( $M$  difference = 16.64,  $SE = 10.98, p > .05$ ). Similarly, no significant differences in depression/anxiety/stress scores were found between the group termination ( $M = 30.91, SE = 10.37$ ) and the waitlist termination ( $M = 46.01, SE = 8.18$ ) groups ( $M$  difference = -15.10,  $SE = 13.20, p > .05$ ).

An ANCOVA was used to evaluate the differences in means on family member depression/anxiety/stress, both within and between groups. Results indicated that family member depression/anxiety/stress did not differ from baseline ( $M = 19.4, SE = 3.17$ ) to group termination ( $M = 20.69, SE = 7.2; M$  difference = -1.29,  $SE = 8.02, p > .05$ ). Further, between-groups analyses indicated that no significant differences were found in family member depression/anxiety/stress between the group termination ( $M = 20.69, SE = 7.2$ ) and the waitlist termination ( $M = 28.6, SE = 6.02$ ) groups ( $M$  difference = -7.91,  $SE = 9.33, p > .05$ ). As multiple family members within one family unit were permitted to join the group, to assess the potential influence of nonindependence of data, these analyses were rerun examining only data collected from the primary caregiver. No significant differences emerged when examining outcomes using family member or primary caregiver data. Specifically, family member depression/anxiety/stress did not differ from baseline ( $M = 20.32, SE = 3.72$ ) to group termination ( $M = 20.45, SE = 8.48; M$  difference = -.13,  $SE = 9.46, p > .05$ ). Further, between-groups analyses indicated that no significant differences were found in family member depression/anxiety/stress between the group termination ( $M = 20.45, SE = 8.48$ ) and waitlist termination ( $M = 30.02, SE = 6.81$ ) groups ( $M$  difference = -9.56,  $SE = 10.85, p > .05$ ). See Table 1 for an overview of these findings.

Table 1  
Baseline, Waitlist Termination, and Group Termination Means for Primary Variables

Variable	BL mean	WL_Term mean	Group_Term mean	Mean difference
Within groups				
BPRS	55.16		46.59	8.57*
DASS_IP	47.54		30.91	16.64
DASS_Fam	19.4		20.69	-1.29
Between groups				
BPRS		53.23	46.59	-6.64
DASS_IP		46.01	30.91	-15.10
DASS_Fam		28.6	20.69	7.9

Note. BL = Baseline; WL\_Term = Waitlist Termination; Group\_Term = Group Termination; BPRS = Brief Psychiatric Rating Scale; DASS\_IP = Patient Ratings on Depression, Anxiety, and Stress Scale; DASS\_Fam = Family Member Ratings on Depression, Anxiety, and Stress Scale.

\* Indicates significant at  $p < .05$ .

## Exploratory Analyses

Exploratory analyses were also conducted to examine overall patient and family member satisfaction with the treatment protocol, utilizing both quantitative and qualitative measures. The quantitative measure of consumer satisfaction asked participants to rate how satisfied they were with each session, where "Very Dissatisfied" represented a 1 and "Very Satisfied" represented a 7. Results indicated that, patients ( $M = 6.18$ ,  $SD = 1.17$ ) and family members ( $M = 6.38$ ,  $SD = .57$ ) both reported being highly satisfied by the treatment program. Qualitative data were also examined to identify specific aspects of the program that participants reported as most valuable. Broadly, qualitative results suggest that patients viewed the CIGT-S group as a forum in which they could learn new concepts and discuss concerns in an open, validating environment (e.g., *Good open dialogue; Allowed me to share some things with my family; It really gave me time to debrief; It brought me peace of mind to share what was on my mind; I look forward to having a place to go over my problems*). Patients also reported that the group provided a sense of comfort in knowing they are not alone in their illness (e.g., *It was very helpful to find people that are going through the same situation as me. People who have experience some of the things that I have experience; I enjoyed the session today. It feels good to know I'm not alone in my illness; I have met really good people here. A family of sorts in itself*). The CIGT-S group also appeared to be a place for patients to gain insights not only into their own experiences, but into the experiences of other family members (e.g., *Very good, gave me quite an insight; Very interesting, all aspects, parent, caretaker, patients perspective; It brought me a lot: insight, understanding, etc. I can't wait for next session*).

Similarly, qualitative data indicated that family members viewed the group as safe and nonthreatening (e.g., *It was a very comfortable atmosphere; I liked it. It was very safe and comfortable; Very non-threatening environment*). Further, family members appeared to be satisfied with the content of the group discussions (e.g., *Good - discussing family dynamics is important; Great topic! Family plays a very important role in mentally ill people; Good to review symptoms of schizophrenia with family members present; I think the spirituality discussion helped me better get to know the group better; Very informative and helpful to trigger an interest to learn about spiritual development and applying it to more mental health*). Family members also discussed how including patients and family members in the CIGT-S program allowed them to gain different perspectives into both patient and family member experiences (e.g., *It was interesting because I saw things (family and relationships) from a different perspective; It was good to meet other people who have the illness and family members; It was very interesting to hear different perspectives on how to balance family involvement*). Further, family members shared significant insights gained as a result of the CIGT-S experience (e.g., *I learned I need to treat my mentally ill son with more respect and dignity - as I would any other adult; Very revealing while difficult. Made me think and reflect; Helped me think about . . . need for having more patience to myself and other - also adjust my expectations with myself and others*). Finally, family members discussed the most helpful components of the CIGT-S group, including encouraging communication and sharing experiences (e.g., *I think it was helpful in getting (Patient) and I to talk; It was great! Everyone sharing*

*their experiences is very helpful; Parents sharing about their personal experiences is tremendously helpful*).

Qualitative data also provided useful information regarding ways to improve upon the CIGT-S program. Patients described additional topics that may be useful to incorporate into the program, (e.g., *Stigma, labels; Self-esteem; Invasion of privacy. Discrimination. Violation of right*). Additionally, patients reported interest in continued discussion of specific family related issues that may be useful to address in depth within the group setting (e.g., *Family goals; On the love of my family - but feeling judged; Feeling included by my family*). Finally, patients also discussed specific skills that they would like to work on in the group, including emotional expression and future planning (e.g., *Life planning on how to be able to handle the anxiety of dealing with daily life such as making a living; Expressing my feelings*). Family members also provided additional topics that may be helpful to address in the program, including concrete (e.g., *Concrete planning, like budgets; Where to find resources*) and emotional (e.g., *Anger and letting go; Ways to cope with stressful situations as caregivers*) skill building. Family members also highlighted the importance of the family dynamic (e.g., *More about family interaction; More on family dynamics*), and requested continued in-depth discussions regarding how to best support their ill relative (e.g., *How to improve our roles; How family can provide support; How to deal with SZ in loved one. Discuss ways to help the person with SZ; Family and how we can continue to support our mentally ill person*). A final major theme that arose for family members included ways to support continued independence of the patient (e.g., *More on independence of family member; How to set "realistic" expectations; Problem solving to work toward independence*).

## Discussion

The current study aimed to examine the feasibility of the CIGT-S protocol by examining differences in patient symptom severity and patient and family member depression, anxiety, and stress after completion of the group program. On an exploratory basis, we also aimed to examine participant satisfaction with the group protocol, including qualitative reports on components of the protocol that participants deemed most valuable. Results indicated that patients demonstrated lower levels of symptom severity upon completion of the CIGT-S program, supporting study hypotheses. Though not significant, trends in the data indicated that patients who completed the CIGT-S program demonstrated lower levels of symptom severity than those who had been assigned a waitlist control condition, indicating that improvements in patient symptom severity do not appear to be the result of mere passage of time. When considering the null findings observed among family members, it is important to note that mean levels of depression, anxiety, and stress were within the normal to mild clinical cut offs in our sample (ranging from the 65th-81st percentiles; Crawford & Henry, 2003; Lovibond & Lovibond, 1995). Thus, it is possible that the low levels of depression, anxiety, and stress observed among family members may have created a floor effect in which changes in this variable were difficult to detect. As such, follow-up research with more participant variability in baseline depression, anxiety, and stress scores may more clearly determine the potential benefits of the CIGT-S program for family members.

Results also indicated that patients and family members both reported being highly satisfied by the treatment program. Generally, it appeared that respondents viewed the group as a safe and open environment in which new concepts could be learned and concerns could be discussed. Patients reported the group was helpful in allowing them to share their experiences, meet others with similar experiences, and gain insights regarding the perspectives of other patients and family members. Family members discussed their satisfaction with the group content, and reported greater understanding and insight regarding patient experiences. Regarding ways to improve upon the program, patients added additional topics to explore (e.g., stigma, self-esteem) and specific skills they would like to work on in the group setting, including emotional expression and future planning. Family members reported interest in concrete (e.g., finding resources) and emotional (e.g., ways to cope with stress) skill building, as well as ways to support the independence of the patient. Both patients and family members highlighted the importance of discussing the family dynamic and ways to support the family as a whole. Overall, these findings indicate that CIGT-S is feasible and may be an avenue in which to address the paucity of programs which are culturally informed, attend to the needs of both patients and family members, and can be adapted for use with individuals of diverse cultural backgrounds. As very few individuals with schizophrenia or family members of individuals with schizophrenia receive any mental health services (Drake & Essock, 2009), this practical and flexible approach to treatment may serve as an effective means to expand upon the availability of services within this population.

There were various limitations within the current study. Primarily, this study was limited by a small sample size. As such, we consider this to be a pilot study that, despite limited power, demonstrates promising results regarding the impact of CIGT-S for patients with schizophrenia. Follow-up research utilizing a larger sample may help to clarify the potential efficacy of the group program for both patients and family members. Additionally, patients within the current sample were primarily African American men. Therefore, results regarding the effectiveness of the CIGT-S program on patient symptom severity may not generalize to a broader sample of patients. Follow-up research with a more ethnically diverse sample may provide more insights regarding the impact of this program on individuals of various ethnic backgrounds. Another limitation of the current study was the lack of an active comparison condition. Future research examining the differential effect of the CIGT-S program compared to a matched length family-focused treatment would allow for insights as to whether the culturally adapted modules (family collectivism, spirituality) are driving change above and beyond the otherwise identical traditional family-focused treatment. This research would also assist in ruling out alternative possibilities (e.g., mere passage of time, broader social support provided by the group format) for the observed reductions in symptom severity.

Another major limitation within the current study was the high degree of attrition, which may have impacted our ability to detect significant effects within the CIGT-S outcome data. Literature suggests that when collapsing across diagnoses, attrition from psychosocial interventions ranges between 20 and 60% (Hamilton, Moore, Crane, & Payne, 2011; Salmoiraghi & Sambhi, 2010; Wierzbicki & Pekarik, 1993) with attrition rates appearing to be highest among individuals with schizophrenia and psychotic-based

disorders (Hamilton et al., 2011). Further, ethnic minority samples have been found to drop out of treatment significantly more often than do Whites (Carpenter-Song, Whitley, Lawson, Quimby, & Drake, 2011; US Department of Health and Human Services, 2001), with >70% of ethnic minorities dropping out of treatment after the first session (Aguilar-Gaxiola et al., 2002). Though literature examining attrition among racial/ethnic minorities with schizophrenia is limited, prior literature suggests that racial/ethnic minorities with schizophrenia may be at greater risk for dropping out of mental health treatments prematurely (Kreyenbuhl, Nossel, & Dixon, 2009). For example, in a study examining rates of service use among 164,150 veterans with schizophrenia and bipolar disorder, Fischer and colleagues (2008) found that being Black was associated with an increased likelihood of experiencing a 12-month gap in Veteran Association mental health services (Odds Ratio = 1.45). Given that our sample consisted primarily of ethnic minorities with schizophrenia/schizoaffective disorder (79.6% of sample self-reported as African American, Hispanic, or Other), our attrition rate (65% for patients, 58% of family members), while disturbing, is consistent with the psychotherapy research targeted toward ethnically diverse schizophrenia populations.

Given the presence of significant treatment disparities within this population, future research examining patient and family member factors that may impact attrition rates in group therapy is imperative. Factors which have been identified within the literature base as having the potential to influence treatment engagement and attrition in this population and therefore may be useful to consider include stigmatizing beliefs about mental illness, mistrust or lack of confidence in mental health services, familial involvement in treatment, spiritual/religious values, and cultural differences in explanatory models of mental illness and treatment seeking behaviors (for detailed discussions of these factors see Kreyenbuhl et al., 2011; Yamada & Brekke, 2008). In the current study, encouragement of familial involvement within the group and discussions of spirituality/religiosity were incorporated into the treatment protocol. Despite this, high rates of attrition continued to be observed. As such, we discuss additional ways to adapt the current protocol to better meet the needs of racial/ethnic minorities with schizophrenia.

One strategy to better consider culture may include discussions of cultural differences in explanatory models of mental illness within the Psychoeducation module. Specifically, the use of culturally specific phrases and metaphors when providing psychoeducation may serve to enhance understanding of and engagement with session content. Further, group discussions regarding how cultural beliefs and behaviors serve to influence perceptions of mental illness and appropriate means of intervention may assist in validating the personal experiences of group members while also allowing for opportunities to provide specific feedback, correct misinformation, and develop integrative approaches in which both modern and alternative (e.g., prayer) mental health practices can be utilized by group members. Explicit discussions of stigma and discrimination may also serve to provide opportunities to disconfirm common stereotypes about mental illness and allow the group to share and encourage positive antistigma messages with one another, facilitating a sense of unity and integration among the group. This adaptation may also include discussions of the impact of belonging to two minority groups (severe mental illness, racial/ethnic minority), and how these experiences have influenced help seeking and confidence in mental health services. Finally, prior

work examining the impact of the family focused CIT-S program found that rates of attrition dropped significantly after the introduction of the Spiritual Coping module, indicating that this content may have been particularly engaging among participants (Gurak, Weisman de Mamani, & Ironson, 2017). As drop out of treatment is most likely to occur during the first few sessions of therapy, this may represent a critical period in which to establish trust and engagement in the therapeutic process (Kreyenbuhl, Nossel, & Dixon, 2009). Thus, introducing the Spiritual Coping module earlier on within the CIGT-S protocol may serve to enhance engagement and protect against attrition, particularly among racial/ethnic minorities with schizophrenia who report high rates of religious coping when dealing with adversity (Hwang, Myers, Abe-Kim, & Ting, 2008). Further work and expansion in these areas may provide increased support for the CIGT-S program as a feasible, cost-effective approach that can be flexibly used with patients and family members of diverse racial/ethnic backgrounds.

## References

- Agara, A. J., & Onibi, O. E. (2007). Effects of group psychoeducation (GPE) on compliance with scheduled clinic appointments in a neuro-psychiatric hospital in southwest Nigeria: A randomised control trial (RCT). *Annals of the Academy of Medicine, Singapore*, *36*, 272–275.
- Aguilar-Gaxiola, S. A., Zeleny, L., Garcia, B., Edmondson, C., Alejo-Garcia, C., & Vega, W. A. (2002). Mental health care for Latinos: Translating research into action: Reducing disparities in mental health care for Mexican Americans. *Psychiatric Services*, *53*, 1563–1568. <http://dx.doi.org/10.1176/appi.ps.53.12.1563>
- American Psychological Association. (2013). Recognition of psychotherapy effectiveness. *Psychotherapy*, *50*, 102–109. <http://dx.doi.org/10.1037/a0030276>
- Barrio, C., & Yamada, A. M. (2010). Culturally based intervention development: The case of Latino families dealing with schizophrenia. *Research on Social Work Practice*, *20*, 483–492. <http://dx.doi.org/10.1177/1049731510361613>
- Benish, S. G., Quintana, S., & Wampold, B. E. (2011). Culturally adapted psychotherapy and the legitimacy of myth: A direct-comparison meta-analysis. *Journal of Counseling Psychology*, *58*, 279–289. <http://dx.doi.org/10.1037/a0023626>
- Bernal, G., Jiménez-Chafey, M. I., & Domenech Rodríguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology, Research and Practice*, *40*, 361–368. <http://dx.doi.org/10.1037/a0016401>
- Buckley, P. F., Miller, B. J., Lehrer, D. S., & Castle, D. J. (2009). Psychiatric comorbidities and schizophrenia. *Schizophrenia Bulletin*, *35*, 383–402. <http://dx.doi.org/10.1093/schbul/sbn135>
- Carlson, R. G., & de Mamani, A. G. W. (2010). Client characteristics and therapist competence and adherence to family therapy for schizophrenia. *Revista Interamericana de Psicología*, *44*, 342–351.
- Carpenter-Song, E., Whitley, R., Lawson, W., Quimby, E., & Drake, R. E. (2011). Reducing disparities in mental health care: Suggestions from the Dartmouth-Howard collaboration. *Community Mental Health Journal*, *47*, 1–13. <http://dx.doi.org/10.1007/s10597-009-9233-4>
- Chien, W. T., & Wong, K. F. (2007). A family psychoeducation group program for chinese people with schizophrenia in Hong Kong. *Psychiatric Services*, *58*, 1003–1006. <http://dx.doi.org/10.1176/ps.2007.58.7.1003>
- Cohen, J. (1988). *Statistical power analysis for the behavior science*. Hillsdale, NJ: Lawrence Erlbaum Association.
- Crawford, J. R., & Henry, J. D. (2003). The Depression Anxiety Stress Scales (DASS): Normative data and latent structure in a large non-clinical sample. *British Journal of Clinical Psychology*, *42*, 111–131.
- Drake, R. E., & Essock, S. M. (2009). The science-to-service gap in real-world schizophrenia treatment: The 95% problem. *Schizophrenia Bulletin*, *35*, 677–678. <http://dx.doi.org/10.1093/schbul/sbp047>
- Duarte, E. A. (2010). General religiosity and use of religious coping as predictors of treatment gains for patients with schizophrenia and their relatives. *Dissertation Abstracts International*, *70*, 5156.
- Falloon, I. R., Boyd, J. L., & McGill, C. W. (1984). *Family care of schizophrenia: A problem-solving approach to the treatment of mental illness*. New York, NY: Guilford Press.
- First, M., Spitzer, R., Gibbon, M., & Williams, J. B. W. (2002). *Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition With Psychotic Screen (SCID-I/P W/PSY SCREEN)*. New York, NY: Biometrics Research, New York State Psychiatric Institute.
- Fischer, E. P., McCarthy, J. F., Ignacio, R. V., Blow, F. C., Barry, K. L., Hudson, T. J., . . . Valenstein, M. (2008). Longitudinal patterns of health system retention among veterans with schizophrenia or bipolar disorder. *Community Mental Health Journal*, *44*, 321–330. <http://dx.doi.org/10.1007/s10597-008-9133-z>
- Freeman, D., Startup, H., Dunn, G., Wingham, G., Černis, E., Evans, N., . . . Kingdon, D. (2014). Persecutory delusions and psychological well-being. *Social Psychiatry and Psychiatric Epidemiology*, *49*, 1045–1050. <http://dx.doi.org/10.1007/s00127-013-0803-y>
- Griner, D., & Smith, T. B. (2006). Culturally adapted mental health intervention: A meta-analytic review. *Psychotherapy*, *43*, 531–548. <http://dx.doi.org/10.1037/0033-3204.43.4.531>
- Gurak, K., Weisman de Mamani, A., & Ironson, G. (2017). Does religiosity predict attrition from a culturally-informed family treatment for schizophrenia that targets religious coping? Manuscript submitted for publication.
- Hall, G. C. (2001). Psychotherapy research with ethnic minorities: Empirical, ethical, and conceptual issues. *Journal of Consulting and Clinical Psychology*, *69*, 502–510. <http://dx.doi.org/10.1037/0022-006X.69.3.502>
- Hamilton, S., Moore, A. M., Crane, D. R., & Payne, S. H. (2011). Psychotherapy dropouts: Differences by modality, license, and DSM-IV diagnosis. *Journal of Marital and Family Therapy*, *37*, 333–343. <http://dx.doi.org/10.1111/j.1752-0606.2010.00204.x>
- Hwang, W. C., Myers, H. F., Abe-Kim, J., & Ting, J. Y. (2008). A conceptual paradigm for understanding culture's impact on mental health: The cultural influences on mental health (CIMH) model. *Clinical Psychology Review*, *28*, 211–227. <http://dx.doi.org/10.1016/j.cpr.2007.05.001>
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.
- Kreyenbuhl, J., Nossel, I. R., & Dixon, L. B. (2009). Disengagement from mental health treatment among individuals with schizophrenia and strategies for facilitating connections to care: A review of the literature. *Schizophrenia Bulletin*, *35*, 696–703. <http://dx.doi.org/10.1093/schbul/sbp046>
- Kreyenbuhl, J., Slade, E. P., Medoff, D. R., Brown, C. H., Ehrenreich, B., Afful, J., & Dixon, L. B. (2011). Time to discontinuation of first- and second-generation antipsychotic medications in the treatment of schizophrenia. *Schizophrenia Research*, *131*(1–3), 127–132. <http://dx.doi.org/10.1016/j.schres.2011.04.028>
- Krok, D. (2014). Religiousness and social support as predictive factors for mental health outcomes. *Archives of Psychiatry and Psychotherapy*, *16*, 65–76. <http://dx.doi.org/10.12740/APP/31319>
- Lehman, A. F., Lieberman, J. A., Dixon, L. B., McGlashan, T. H., Miller, A. L., Perkins, D. O., . . . The American Psychiatric Association, & the Steering Committee on Practice Guidelines. (2004). Practice guideline for the treatment of patients with schizophrenia, second edition. *The American Journal of Psychiatry*, *161*(2, Suppl.), 1–56.

- Lockwood, C., Page, T., & Conroy-Hiller, T. (2004). Effectiveness of individual therapy and group therapy in the treatment of schizophrenia. *International Journal of Evidence-Based Healthcare*, 2, 309–338. <http://dx.doi.org/10.1097/01258363-200411000-00001>
- López, S. R., Nelson Hipke, K., Polo, A. J., Jenkins, J. H., Karno, M., Vaughn, C., & Snyder, K. S. (2004). Ethnicity, Expressed Emotion, Attributions, and Course of Schizophrenia: Family Warmth Matters. *Journal of Abnormal Psychology*, 113, 428–439. <http://dx.doi.org/10.1037/0021-843X.113.3.428>
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the beck depression and anxiety inventories. *Behaviour Research and Therapy*, 33, 335–343. [http://dx.doi.org/10.1016/0005-7967\(94\)00075-U](http://dx.doi.org/10.1016/0005-7967(94)00075-U)
- Lukoff, D., Nuechterlein, K. H., & Ventura, J. (1986). Appendix A: Manual for expanded Brief Psychiatric Rating Scale (BPRS). *Schizophrenia Bulletin*, 12, 594–602.
- Lyman, D. R., Braude, L., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., & Delphin-Rittmon, M. E. (2014). Consumer and family psychoeducation: Assessing the evidence. *Psychiatric Services*, 65, 416–428. <http://dx.doi.org/10.1176/appi.ps.201300266>
- Magaña, S., & Smith, M. J. (2006). Psychological distress and well-being of Latina and non-Latina white mothers of youth and adults with an autism spectrum disorder: Cultural attitudes towards coresidence status. *American Journal of Orthopsychiatry*, 76, 346–357. <http://dx.doi.org/10.1037/0002-9432.76.3.346>
- Maura, J., & Weisman de Mamani, A. W. (2017). Culturally adapted psychosocial interventions for schizophrenia: A review. *Cognitive and Behavioral Practice*. Advance online publication. <http://dx.doi.org/10.1016/j.cbpra.2017.01.004>
- Miklowitz, D. J., & Goldstein, M. J. (1997). *Bipolar disorder: A family-focused treatment approach*. New York, NY: Guilford Press.
- Mitsonis, C., Voussour, E., Dimopoulos, N., Psarra, V., Kararizou, E., Latzouraki, E., . . . Katsanou, M. N. (2012). Factors associated with caregiver psychological distress in chronic schizophrenia. *Social Psychiatry and Psychiatric Epidemiology*, 47, 331–337. <http://dx.doi.org/10.1007/s00127-010-0325-9>
- Mohr, S., Brandt, P. Y., Borrás, L., Gilliéron, C., & Huguélet, P. (2006). Toward an integration of spirituality and religiousness into the psychosocial dimension of schizophrenia. *The American Journal of Psychiatry*, 163, 1952–1959. <http://dx.doi.org/10.1176/ajp.2006.163.11.1952>
- Murray-Swank, A. B., Lucksted, A., Medoff, D. R., Yang, Y., Wohlheiter, K., & Dixon, L. B. (2006). Religiosity, psychosocial adjustment, and subjective burden of persons who care for those with mental illness. *Psychiatric Services*, 57, 361–365. <http://dx.doi.org/10.1176/appi.ps.57.3.361>
- Overall, J. E., & Gorham, D. R. (1962). The brief psychiatric rating scale. *Psychological Reports*, 10, 799–812. <http://dx.doi.org/10.2466/pr0.1962.10.3.799>
- Perkins, R., & Repper, J. (2003). *Social inclusion and recovery: A model for mental health practice*. Kent, UK: Baillière-Tindall.
- Pinkham, A. E., Mueser, K. T., Penn, D. L., Glynn, S. M., McGurk, S. R., & Addington, J. (2012). Social and functional impairments. In J. A. Lieberman, T. S. Stroup, D. O. Perkins, J. A. Lieberman, T. S. Stroup, & D. O. Perkins (Eds.), *Essentials of schizophrenia* (pp. 93–130). Arlington, VA: American Psychiatric Publishing, Inc.
- Rammohan, A., Rao, K., & Subbakrishna, D. K. (2002). Religious coping and psychological wellbeing in carers of relatives with schizophrenia. *Acta Psychiatrica Scandinavica*, 105, 356–362. <http://dx.doi.org/10.1034/j.1600-0447.2002.10149.x>
- Rodríguez, N., Mira, C. B., Paez, N. D., & Myers, H. F. (2007). Exploring the complexities of familism and acculturation: Central constructs for people of Mexican origin. *American Journal of Community Psychology*, 39:61–77. <http://dx.doi.org/10.1007/s10464-007-9090-7>
- Rosmarin, D. H., Bigda-Peyton, J. S., Öngür, D., Pargament, K. I., & Björgvinsson, T. (2013). Religious coping among psychotic patients: Relevance to suicidality and treatment outcomes. *Psychiatry Research*, 210, 182–187.
- Salmoiraghi, A., & Sambhi, R. (2010). Early termination of cognitive-behavioural interventions: Literature review. *The Psychiatrist*, 34, 529–532. <http://dx.doi.org/10.1192/pb.bp.110.030775>
- Schwartz, S. J., Weisskirch, R. S., Hurley, E. A., Zamboanga, B. L., Park, I. J., Kim, S. Y., . . . Greene, A. D. (2010). Communalism, familism, and filial piety: Are they birds of a collectivist feather? *Cultural Diversity and Ethnic Minority Psychology*, 16, 548–560. <http://dx.doi.org/10.1037/a0021370>
- Segredou, I., Xenitidis, K., Panagiotopoulou, M., Bochtsou, V., Antoniadou, O., & Livaditis, M. (2012). Group psychosocial interventions for adults with schizophrenia and bipolar illness: The evidence base in the light of publications between 1986 and 2006. *International Journal of Social Psychiatry*, 58, 229–238. <http://dx.doi.org/10.1177/0020764010390429>
- Shah, R., Kulhara, P., Grover, S., Kumar, S., Malhotra, R., & Tyagi, S. (2011a). Relationship between spirituality/religiousness and coping in patients with residual schizophrenia. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, 20, 1053–1060. <http://dx.doi.org/10.1007/s11136-010-9839-6>
- Shah, R., Kulhara, P., Grover, S., Kumar, S., Malhotra, R., & Tyagi, S. (2011b). Contribution of spirituality to quality of life in patients with residual schizophrenia. *Psychiatry Research*, 190, 200–205. <http://dx.doi.org/10.1016/j.psychres.2011.07.034>
- Stepick, A., Stepick, C. D., & Vanderkooy, P. (2011). Becoming American. In S. J. Schwartz, K. Luyckx, V. L. Vignoles, S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of identity theory and research* (Vols 1 and 2, pp. 867–893). New York, NY: Springer Science + Business Media. [http://dx.doi.org/10.1007/978-1-4419-7988-9\\_37](http://dx.doi.org/10.1007/978-1-4419-7988-9_37)
- Tarrier, N., & Wykes, T. (2004). Is there evidence that cognitive behaviour therapy is an effective treatment for schizophrenia? A cautious or cautionary tale? *Behaviour Research and Therapy*, 42, 1377–1401. <http://dx.doi.org/10.1016/j.brat.2004.06.020>
- Tsai, J., & Rosenheck, R. A. (2013). Psychiatric comorbidity among adults with schizophrenia: A latent class analysis. *Psychiatry Research*, 210, 16–20. <http://dx.doi.org/10.1016/j.psychres.2013.05.013>
- US Department of Health and Human Services. (2001). *Mental Health: Culture, Race and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*. Rockville, MD: Department of Health and Human Services. *Substance Abuse and Mental Health Services Administration, Center for Mental Health Services*.
- US Department of Health and Human Services. (2003). *Achieving the promise: Transforming mental health care in America*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Ventura, J., Green, M. F., Shaner, A., & Liberman, R. P. (1993). Training and quality assurance with the Brief Psychiatric Rating Scale: “The drift busters”. *International Journal of Methods in Psychiatric Research*, 3, 221–244.
- Ventura, J., Liberman, R. P., Green, M. F., Shaner, A., & Mintz, J. (1998). Training and quality assurance with the structured clinical interview for DSM-IV (SCID-I/P). *Psychiatry Research*, 79, 163–173. [http://dx.doi.org/10.1016/S0165-1781\(98\)00038-9](http://dx.doi.org/10.1016/S0165-1781(98)00038-9)
- Weisman, A. (2005). Integrating culturally based approaches with existing interventions for Hispanic/Latino families coping with schizophrenia. *Psychotherapy*, 42, 178–197. <http://dx.doi.org/10.1037/0033-3204.42.2.178>
- Weisman, A., Duarte, E., Koneru, V., & Wasserman, S. (2006). The development of a culturally informed, family-focused treatment for schizophrenia. *Family Process*, 45, 171–186. <http://dx.doi.org/10.1111/j.1545-5300.2006.00089.x>

- Weisman, A. G., Nuechterlein, K. H., Goldstein, M. J., & Snyder, K. (1998). Expressed emotion, attributions, and schizophrenia symptom dimensions. *Journal of Abnormal Psychology, 107*, 355.
- Weisman, A., Rosales, G., Kymalainen, J., & Armesto, J. (2005). Ethnicity, family cohesion, religiosity and general emotional distress in patients with schizophrenia and their relatives. *Journal of Nervous and Mental Disease, 193*, 359–368. <http://dx.doi.org/10.1097/01.nmd.0000165087.20440.d1>
- Weisman de Mamani, A., & Suro, G. (2016). The effect of a culturally informed therapy on self-conscious emotions and burden in caregivers of patients with schizophrenia: A randomized clinical trial. *Psychotherapy, 53*, 57–67. <http://dx.doi.org/10.1037/pst0000038>
- Weisman de Mamani, A., Weintraub, M. J., Gurak, K., & Maura, J. (2014). A randomized clinical trial to test the efficacy of a family-focused, culturally informed therapy for schizophrenia. *Journal of Family Psychology, 28*, 800–810. <http://dx.doi.org/10.1037/fam0000021>
- Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research And Practice, 24*, 190–195. <http://dx.doi.org/10.1037/0735-7028.24.2.190>
- Yamada, A. M., & Brekke, J. S. (2008). Addressing mental health disparities through clinical competence not just cultural competence: The need for assessment of sociocultural issues in the delivery of evidence-based psychosocial rehabilitation services. *Clinical Psychology Review, 28*, 1386–1399. <http://dx.doi.org/10.1016/j.cpr.2008.07.006>

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