RESEARCH

Socio-Psychological Predictors of Acculturative Stress among Latino Adults

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The study aimed to predict the acculturative stress experienced by Latino adults from socio-psychological factors. A random sample of 197 members of two social services agencies completed a demographic questionnaire and objective instruments to assess family cohesion and adaptability, acculturation, acculturative stress, and stress coping-resources effectiveness. The results suggest that the acculturative stress experienced by Latinos relates to the efficacy of stress-coping resources, degree of acculturation, cohesion of the family, language use, and length of residence in the United States. These variables accounted for 48% of the variability in the acculturative stress of adult Latinos. The findings highlight the complexity of acculturative stress for Latinos.

Acculturation is the process of adjusting to a nonnative culture (Rogler, Cortes, & Malgadi, 1991). It involves changes in identity, values, behaviors, cognitions, and attitudes (Berry, 1990; Liebkind, 1996). Frequently, such changes engender a unique type of distress referred to as acculturative stress (Berry & Anis, 1974; Weaver, 1993).

Initial formulations of acculturative stress suggested that negative psychological consequences of acculturating such as emotional distress, shock, and anxiety were inevitable (Marcos, 1976). More recent views, however, do not emphasize the inevitability of these negative consequences. Contemporary views acknowledge the ameliorating effects of environmental, familial, demographic, and other factors on the outcomes of acculturation (Miranda & Umhoefer, 1998).

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Berry (1980) was one of the earliest researchers to rely on a stress-coping framework in discussing acculturative resilience. He emphasized the importance of stress-coping resources in buffering the negative effects of acculturation. He maintained that dysfunctional and psychopathological consequences occur from acculturation when coping resources prove inadequate. His view accords nicely with the comprehensive model of stress coping constructed by Matheny, Aycock, Pugh, Curlette, and Canella (1986) from their meta-analytic study of the effectiveness of treatments for stress disorders. The model suggests that stress is the consequence of an imbalance between perceived demands and perceived resources, and it draws on the appraisal process conceptualized by Lazarus and Folkman (1984). Accordingly, people first appraise the seriousness of the demands being encountered and then the adequacy of their resources for coping. When perceived resources are judged to be deficit, the stress response is automatically triggered regardless of the nature or origin of the demand. These models, which emphasize the critical role of coping resources in preventing stressful reactions to stressors such as acculturative stress, have derived considerable support from empirical research (Fleishman, 1984; Hobfoll, 1989; Lazarus, Kanner, & Folkman, 1980; Price, Jurs, Jurs, Rhonehouse, & Isham, 1985).

Although these models seem appropriate to the investigation of acculturative stress among Latinos, such research is yet in its infancy. This seems highly unfortunate given that Latinos are predicted to become the largest minority group in the United States by the year 2010, and they continue to confront serious obstacles as they attempt to participate in economic and educational opportunities offered by the dominant culture (Frevert, Miranda, & Kern, 1998). In order to design effective mental health interventions to lessen the impact of acculturative stress on Latinos, we must first identify the contributing factors.

In this study we examine environmental, demographic, and familial factors that are commonly identified as correlates of acculturative stress along with a measure of stress-coping resources. Although much evidence exists that acculturative stress is a dynamic and multifaceted experience, limited attention has been given to the relative contribution of the aforementioned factors to the experience. More remarkable has been that models of acculturative stress tend to neglect the effectiveness of stress-coping resources as general resistance factors against such stress. In designing the study, we hypothesized that each of these factors would help to determine the degree of acculturative stress and that stress-coping resources would prove to have the greater buffering effect. Before a presentation of the results, we explore the nature of acculturative stress and its influence on Latinos.

LATINOS' EXPERIENCE OF ACCULTURATIVE STRESS

Acculturative stress has been associated with fatalistic thinking (Ross, Mirowsky, & Cockerham, 1983; Smart & Smart, 1991). Also, it has been related to decreased self-efficacy expectations (Kanter, 1977), decreased career self-efficacy (Miranda & Umhoefer, 1998), depression and suicidal ideation in adolescents (Hovey & King, 1996), and depression and low social interest (Miranda, 1995; Miranda, Frevert, & Kern, 1998). Smart and Smart (1995) concluded that acculturative stress has a pervasive, life-long influence on Latinos' psychological adjustment, decision-making abilities, occupational functioning, and physical health.

Smart and Smart (1995) maintained that much of acculturative stress experienced by Latinos originates from the lack of successful role models and results in role entrapment and status leveling. Additionally, they maintain acculturative stress increases "when there are minimal rewards for learning English and is a disturbing influence on counselor-client relationships" (p. 35).

Acculturative stress has multiple contributors and cannot be attributed to the stage of acculturation alone (Ward & Kennedy, 1994). Padilla (1980) and Sciarra and Ponterotto (1991) suggested that beyond the effects of acculturation, language familiarity and use, cultural heritage, ethnic pride and identity, and interethnic interaction influenced acculturative stress among Latinos. Among these factors, language familiarity and use have received the greatest attention by researchers (Bluestone & Vella, 1982; Casas & Vasquez, 1989; Marrero, 1983; Ponterotto, 1987; Ruiz, 1981). Liebkind (1996) offered a multifaceted view of the determinants of acculturative stress and in doing so implicated sociodemographic characteristics, pre-immigration experiences, social context of the host society, post-migration acculturation experiences, and the degree of acculturation attained. It is interesting to note that Liebkind's listing of influences conspicuously omits mention of internal factors such as coping resources.

Low socioeconomic status, the orientation of the host society toward cultural diversity (Berry & Kim, 1988), and generational status and age (Hovey & King, 1996) also appear to influence acculturative stress. Younger Latinos of second and subsequent generations appear to experience less acculturative stress than older, first generation Latinos.

Psychological and familial factors also have been examined for their influence on acculturative stress. Berry and Kim (1988) found that attitudes and expectations regarding acculturation influenced its impact. The functionality of the family environment appears to buffer Latinos from acculturative stress (Cortes, 1995; Keefe & Padilla, 1987; Miranda, Estrada, & Firpo-Jimenez, 2000). Cortes found that "feelings of loyalty, reciprocity, and solidarity toward members of the family as well as the notion of the family as an extension of

self" protect Latinos from acculturative stress. Hovey and King (1996) found the buffering effects of family functionality to be especially important in the early stages of acculturation.

METHOD

Participants

Of the 197 participants, 124 (63%) were females and the remaining 73 (37%) were males. The participants represented many areas of Spanish-speaking America. Specifically, 47% of the participants were of Mexican ancestry, 34% were of Central American, and 19% were of South American descent. Twelve nationalities were represented in the study. The average age of participants was 28.7 (SD = 4.5; range 18.4 to 68.7). The average age of migration to the United States was 22.5 (SD = 5.2; range 4.2 to 41.7). The average length of residence in the United States was 3.9 years (SD = 3.7; range 1.3 to 9.5).

The majority of participants in the study indicated some form of legal residence (52%). However, the remaining 48% indicated illegal resident status or neglected to indicate their legal status. About half of the participants (48%) were married, 37% indicated that they were single, and the remaining 15% were either divorced or separated. Most of the participants (78%) indicated that they were members of households earning less that \$20,000 yearly income.

Instruments

Demographic questionnaire. A demographic questionnaire solicited information about the participant's age, gender, marital status, national origin, age of migration, length of residence in the United States, and socio-economic and legal status.

The American-International Relations Scales (AIRS). The AIRS (Sodowsky & Plake, 1992) is a 34-item, self-report, paper-and-pencil, objective instrument designed to measure acculturation. It includes three scales: Acculturation, Language Use, and Perceived Prejudice. Sodowsky and Plake (1991) discussed the development of the AIRS and offered information about its psychometric properties. The Cronbach's alpha for the over all AIRS score in this study was .91 (.90 for the Acculturation scale, .89 for the Language Use scale, and .78 for the Perceived Prejudice scale).

Family Adaptation and Cohesion Scale - Third Version (FACES-III). The FACES-III (Olson, 1986) is a 20-item, paper-and-pencil, self-report, objective instrument designed to assess family functioning along two dimensions—cohe-

sion and adaptability. Cohesion extends along a continuum from enmeshment to disengagement and adaptability along a continuum from rigidity to flexibility. Because a curvilinear relation between adaptability and cohesion is an assumption of Olson's Circumplex Model, moderate scores represent balance in family functioning. Conversely, scores that are either too low or too high represent family dysfunction. Olson (1986) reported internal consistency coefficients of .77 for cohesion and .62 for adaptability. In the present study, the internal consistency coefficients were .59 for cohesion and .67 for adaptability.

Coping Resources Inventory for Stress (CRIS). The CRIS (Matheny, Curlette, Aycock, Pugh, & Taylor, 1987) is a 280-item, self-report, paper-and-pencil, objective instrument for assessing stress-coping resources. There are 12 primary and 3 composite resource scales, 5 validity keys, and an overall score called the Coping Resources Effectiveness (CRE) score. Internal consistency reliability coefficients (Cronbach's alpha) for the 15 scales range from .84 to .97, with test-retest reliabilities ranging from .77 to .95. The internal consistency coefficient for the over all score, CRE, is given as .97 and test-retest reliability coefficient as .95. In the present study, the internal consistency coefficient for the CRE was found to be .93. Construct validity was established by a series of factor analyses; content and criterion-related validities were established in several empirical studies (Curlette, Aycock, Matheny, Pugh, & Taylor, 1992).

SAFE short version. The short version of the SAFE (Padilla, 1986) was used to assess acculturative stress in social, attitudinal, familial, and environmental contexts. It also provides a measure of perceived discrimination. Items use a Likert-type 5-point format with options ranging from "not stressful" to "extremely stressful." Scores range from 0 to 120. Mena, Padilla, and Maldonado (1987) reported an internal consistency reliability coefficient of .89 for the scale. In this study, the internal consistency reliability coefficient was .87.

Procedure

Two organizations that provided social services to the Latin population of a southeastern metropolitan area gave access to lists of their active members to the principal investigator. Members voluntarily joined these social service organizations to secure services such as job placement, immigration, housing, and health assistance.

The random sampling of participants began with the use of a pseudo-random number generator to set a random starting point on a list (Lambert, 1991); 300 adults were randomly selected from the lists of the two agencies. Each was contacted by phone by a bilingual social worker to solicit participation; 263 members agreed to participate. Immediately upon their agreement to participate, a packet was mailed to them containing a consent form,

| Table 1.Frequency, | Means, | Standard | Deviations | and | Variable | Range |
|--------------------|--------|----------|-------------------|-----|----------|-------|
| (N = 197) | | | | | | |

| Variable | Frequency | M | SD | Range |
|--------------------------------|-----------|-------------|------|-------------|
| Female | 73 (37%) | | | |
| Male | 124 (63%) | | | |
| Mexican | 93 (47%) | | | |
| Central American | 67 (34%) | | | |
| South American | 37 (19%) | | | |
| Legal residence | 102 (52%) | | | |
| Illegal residence/no response | 95 (48%) | | | |
| Married | 95 (48%) | | | |
| Single | 73 (37%) | | | |
| Divorced/Separated | 29 (15%) | | | |
| Age | | 28.7 | 4.5 | 18.4 - 68.7 |
| Age at migration | | 22.5 | 5.2 | 4.2 - 41.7 |
| Length of U.S. Residence | | 3.9 | 3.7 | 1.3 - 9.5 |
| Acculturation | | 32.5 | 4.6 | 14.2 - 45.8 |
| Language Use | | 10.7 | 1.9 | 6.0 - 21.0 |
| Perceived Prejudice | | 71.2 | 12.1 | 32.0 - 88.0 |
| Family Cohesion | | 34 2 | 8.9 | 26.3 - 51.7 |
| Family Adaptability | | 27.2 | 9.3 | 8.5 - 47.8 |
| Coping Resources Effectiveness | s | 69 3 | 15.1 | 45.2 - 99.1 |
| Acculturative Stress | | 78.3 | 11.6 | 30.0 - 90.0 |

a demographic questionnaire, the research inventories along with instructions for completing them, and a self-addressed, return envelope. The order of the inventories was alternated to minimize the effects of response sets or other undesirable influences. Professional translators translated all of the instruments to Spanish.

After a 30-day data collection period, 203 completed questionnaires were returned. Of the 203 instrument packets completed, 6 had substantial missing data and were omitted from the data analyses. Consequently, we analyzed data from the completed inventories of 197 participants (a response rate of 65.6%).

RESULTS

There were two stages to the data analysis. The first stage consisted of the calculation of simple descriptive statistics to discern the characteristics of the participants according to the data obtained on the demographic and objective instruments, these are depicted on Table 1. An alpha of .05 was the least stringent level at which results were considered statistically significant.

| Variable | Beta | F |
|--------------------------------|------|--------|
| Coping Resources Effectiveness | 46 | < .001 |
| Acculturation | 41 | < .01 |
| Language Use | .38 | < .01 |
| Family Cohesion | .34 | < .01 |
| Length of U.S. Residence | 27 | < .03 |

Table 2. Summary of the Regression Analysis Predicting Acculturative Stress among Latino Adults (N = 197)

Note. R = .69 (F = 33.24, p < .001), Adjusted $R^2 = .48$

Scores on Instruments

Acculturation, language use, and perceived prejudice. The average score of participants on the Acculturation scale was 32.57 (SD = 4.6; range from 14.2 to 45.8). The average score on Language Use was 10.72 (SD = 1.98; range 6 to 21), with Spanish being the preferred language. The average score for Perceived Prejudice was 71.23 (SD = 12.10; range 32 to 88). Overall, the sample was characterized by low acculturation, preference for the Spanish language, and moderately high scores regarding the perception of prejudice directed toward them.

Family cohesion and adaptability. The average score obtained by the participants on Family Cohesion was 34.22 (SD = 8.9) and on Family Adaptability 27.27 (SD = 9.3). Participants, thus, seemed to picture their family members as being moderately adaptable and highly cohesive.

Stress-coping resources. The average score of participants on the CRE was 69.3 (SD = 15.1; range 45.2 to 99.1). This score placed the average participant at the 59th percentile rank for the standardization group for the instrument, suggesting that participants possessed an average number of coping resources.

Acculturative stress. The average acculturative stress score for participants was 78.3 (SD = 11.6; range 30 to 90). This score suggests that participants endorsed items indicating a significant amount of acculturative stress given that the score placed the average person on the 81 percentile.

Multiple regression analysis of acculturative stress. Table 2 represents the beta weights of the predictors that resulted from the analysis conducted at the second stage. We used a multiple regression analysis to determine the usefulness of predictors in accounting for the acculturative stress, the criterion variable used in this study. The multiple regression model resulted in a multiple

R of .69 (F = 33.24, p < .001), and the adjusted R^2 indicated that 48% of variability in the acculturative stress of Latino adults was explained by five of the predictor variables: coping resource effectiveness (beta weight -.46, p < .001), acculturation (beta weight -.41, p < .01), language use (beta weight .38, p < .01), family cohesion (beta weight .34, p < .01), and length of residence in the United States (beta weight -.27, p < .03). The remaining five variables did not contribute substantially to the prediction of acculturative stress.

The negative beta weights of coping resources effectiveness, acculturation, and length of residence in the United States suggest that deficit stress-coping resources, low levels of acculturation, and limited length of residence in the United States contribute significantly to the prediction of acculturative stress. The positive weights of language use and family cohesion suggest that dependence on Spanish as one's language and high degrees of family cohesion also contribute to the prediction.

Keppel (1973) suggested that standard errors may be used to place confidence intervals on the beta weights of predictor variables to ascertain their order of importance in the prediction of a dependent variable. Thus, the order of importance for the factors used to predict acculturative stress among Latino adults was: Coping Resources Effectiveness (CRE) (.71), Acculturation (.68), Language Use (.57), Family Cohesion (.54), and length of residence in the United States (.49).

DISCUSSION

The results of this study support the views of researchers such as Berry (1990) and Liebkind (1996), who contend that acculturative stress is influenced by multiple factors. Although lesser degrees of acculturation to the dominant culture, a preference for Spanish as one's language, the tightness of cohesive forces within the family, and the short tenure in residency within the adopted country all contributed to acculturative stress, deficits in coping resources appeared to be the strongest predictor. This is particularly interesting inasmuch as Liebkind (1996) makes no mention of such internal resource. It seems that current, influential models of acculturative stress are limited for they look solely to external factors such as demographic factors, immigration experiences, and the social nature of the host society. Perhaps future researchers should include psychological resources to obtain a more complete array of factors influencing acculturative stress.

This sample reported low degrees of acculturation to the dominant culture and a preference for the Spanish language. This is not surprising given that low acculturation and reliance on the native language have been viewed as classic forms of adherence to the Latin culture while in contact with a nonnative one (Berry, Kim, Power, Young, & Bujaki, 1989; Miranda, 1995).

The usual portrayal of the Latino family suggests cohesiveness that nears enmeshment, and the belief is that such strong cohesiveness gives Latinos a sense of support. For example, Sabogal, Marin, and Otero-Sabogal (1987) asserted that a high level of perceived family support was the most fundamental and constant dimension of Latino familism. Salgado de Snyder (1987) and Hovey and King (1996) documented the importance of emotional closeness within the Latino family for averting acculturative stress. In contrast to these views, our study clearly links high degrees of cohesiveness within the Latino family to additional acculturative stress.

Although degrees of family cohesiveness that approach enmeshment may be emotionally rewarding to family members, it may retard the acculturation process and in this manner contribute to acculturative stress. Another possibility is that family cohesiveness, as measured in this study, may not be the same construct as family support. Yet another possible explanation is that moderate degrees of family cohesiveness, rather than the high degree noted in this study, may provide a significant measure of emotional support without contributing to acculturative stress. It may be that only high degrees of family cohesion are associated with increased acculturative stress.

High degrees of cohesiveness may interact with other conditions to increase acculturative stress. This may be particularly true with regard to the sample in this study, given that they had attained only a low degree of acculturation, had limited use of the dominant culture's language, and were reporting significant acculturative stress. Future research efforts attempting to clarify the relationship between family cohesiveness and acculturative stress might increase their usefulness by assessing the interaction of cohesiveness with other conditions influencing Latino acculturation. For example, future studies should consider the entire spectrum of acculturation attainment and not limit their samples to Latinos with low degrees of acculturation, for the degree of acculturation attained by Latino family members may interact with cohesiveness in influencing acculturative stress. These future studies would do well to explore the effects of varying degrees of acculturation attained by family members, for evidence exists that dissimilar rates of acculturation within family members increases dysfunction within Latino families (Roizblatt & Pilowsky, 1996).

Smart & Smart (1995) had observed that Latino immigrants experience the most difficulties early in their contact with nonnative cultures. The results of the present study seem to support their assertion—longer residence in the United States appears to buffer Latinos against acculturative stress. This notion falls well within a culture-learning model that assumes that time of exposure to a nonnative culture leads to increases in the assimilation of skills that are useful in negotiating the requirements of the nonnative culture. It is possible that prolonged exposure to nonnative cultural practices demystifies them and allows

individuals to assimilate a repertoire of functional behaviors, cognition, and affects practiced by the host-culture. Future research studies may examine qualitative and quantitative aspects of the contact with a nonnative culture and their relationships to acculturative stress and acculturation outcomes.

Implications for counseling and limitations

The study's findings have implications for the treatment of Latinos. Mental health professionals should recognize that the acculturative stress of Latinos originates from multiple sources. At the least, stress-coping resources, degree of acculturation, facility with the English language, degree of cohesiveness among family members, and the length of residence within the United States all seem to impact the amount of acculturative stress experienced by Latinos.

It appears that both individual characteristics and environmental factors should be assessed in counseling Latinos who are experiencing acculturative stress. Counseling interventions should be aimed at helping Latinos to build additional coping resources, to increase their proficiency in the English language, and to adopt more effective acculturation strategies. Additionally, the degree of family cohesion should be assessed for its influence on acculturation. Moreover, counselors may include family interventions in their counseling strategies to build levels of cohesion within a Latino family that support members without impeding their efforts to successfully acculturate.

Caution in generalizing the results of this study should be exercised, however, as Latinos are a heterogeneous group, and the acculturation experience is sensitive to unique influences not fully examined in this study. The study suffered from a number of limitations. Self-report inventories were used with participants, and we relied on single informants as sources of data. The study was correlational in nature, and the sample was largely homogenous in regard to acculturation level, national origin, length of U. S. residency, and the area of the country from which the sample was drawn. Moreover, we limited our investigation to 10 predictor variables that were prominently discussed in the literature. Other unexamined variables may prove to influence acculturative stress as well. Despite these limitations, this study contributes significantly to the understanding of conditions that influence acculturative stress among Latinos.

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