

## PSYCHOSOCIAL PREDICTORS OF DEPRESSION AMONG CENTRAL AMERICAN IMMIGRANTS<sup>1</sup>

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*Summary.*—The present study investigated the relationship between stress and depression associated with acculturation among Central American immigrants (64 women, 14 men) and identified the best predictors of depression among Central American immigrants. Elevated acculturative stress was significantly associated with higher depression. Family dysfunction, ineffective social support, lack of hopefulness toward the future, and low socioeconomic status were also significantly associated with high depression. The overall findings suggest that Central American immigrants who report high acculturative stress may be “at risk” for experiencing depression and that effective family and social support, hopefulness toward the future, and socioeconomic status may serve to protect against depression during acculturation.

Hovey and King (1996, 1997) presented a conceptual framework for studying depression among acculturating groups. This framework suggests that during the acculturative process, those individuals who report elevated acculturative stress (stress which directly results from and has its source in the acculturative process) may be at risk for developing depression. Second, the framework identifies factors that may protect against depression during acculturation. These include family support, social support found within the new community, socioeconomic status including education and income, and cognitive attributes such as attitudes toward acculturation (positive or non-positive) and expectations for the future (hopeful versus nonhopeful). While immigrant groups such as Mexican Americans (Hovey, 2000) and Chinese Americans (Mui, 1996) have been evaluated for depression, no previous studies have examined psychosocial predictors of depression among Central American immigrants in Los Angeles, California.

The purpose of the present investigation was twofold—(1) to estimate the relationship between acculturative stress and depression within a sample of Central American immigrants and (2) to identify the best predictors of depression. The variables explored were family functioning, social support, education, income, and expectations toward the future.

### METHOD

Participants were 64 women and 14 men ( $M$  age = 38.6 yr.,  $SD$  = 16.4) from an English as Second Language program for adults in Los Angeles.

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Thus, English proficiency was extremely limited. All were native speakers of Spanish. Seventy-one percent (71.1%) of the participants originated from El Salvador, 17.1% from Guatemala, 9.2% from Honduras, and 2.6% from Nicaragua.

Spanish versions of the following measures were administered. A background information form assessed education, income, and expectations for the future. The General Functioning subscale of the Family Assessment Device (Epstein, Baldwin, & Bishop, 1983) was used to measure family functioning. Scaled scores on this subscale were anchored by 1.00 (healthy) to 4.00 (unhealthy). With the kind permission of Dr. C. Weinert, the Personal Resource Questionnaire-Part 2 (Weinert, 1987) was used to measure the perceived effectiveness of social support. Possible scores range from 25 to 175, with higher scores indicating greater social support. The Social, Attitudinal, Familial, and Environmental scale (SAFE) (Mena, Padilla, & Maldonado, 1987) was used to measure acculturative stress. Possible scores range from 0 to 120, with higher scores indicating greater acculturative stress. The Center for Epidemiologic Studies Depression Scale (CES-Depression) which Dr. Radloff made available for use (Radloff, 1977) was used to measure depression. Possible scores range from 0 to 60, with higher scores indicating greater depression symptoms.

#### RESULTS AND DISCUSSION

Fifteen percent (14.7%) of participants reported 0 to 2 years of grade school education, 17.3% reported 3 to 5 years, 33.3% reported 6 to 8 years, 16.0% reported 9 to 11 years, 10.7% reported being a high school graduate, 6.7% reported attending some college, and 1.3% reported being a college graduate. The mean years of education was 7.3 ( $Mdn=7$  yr.). Thirty-six percent (35.7%) of participants reported an annual household income of \$0 to \$4,999; 33.9% reported \$5,000 to \$14,999; 21.4% reported \$15,000 to \$24,999; 3.6% reported \$25,000 to \$34,999; 1.8% reported \$35,000 to \$44,999; 1.8% reported \$45,000 to \$59,999; and 1.8% reported \$60,000 to \$80,000. The mean income was \$10,715 ( $Mdn=\$10,000$ ). Of the participants 93.2% were coded as having positive expectations for the future; 6.8% were coded as having nonpositive expectations for the future.

The mean score for Family Functioning was 2.31 ( $SD=0.35$ ). The mean score for Social Support was 120.8 ( $SD=24.3$ ). The mean score for Acculturative Stress was 53.2 ( $SD=15.5$ ). The mean score for Depression was 24.1 ( $SD=9.3$ ). The accepted caseness on the CES-Depression is a score of 16 or over, which indicates the presence of potentially significant depression. Of these participants 77.8% reached this score. Pearson correlation coefficients indicated that high scores on Acculturative Stress ( $r=.42$ ,  $p<.001$ ), on the General Functioning subscale of the Family Assessment Device ( $r=.31$ ,

$p < .005$ ), less social support ( $r = -.31, p < .001$ ), low levels of education ( $r = -.32, p < .01$ ), and low income ( $r = -.27, p < .03$ ) were correlated with higher scores on Depression. An analysis of variance indicated a significant main effect for Expectations for the future ( $F_{1,67} = 7.41, p < .01$ ) on Depression. Those participants who reported less positive expectations also tended to report higher scores on Depression.

A stepwise multiple-regression analysis was conducted to examine the relative strengths of the variables in predicting depression. Each of the variables discussed above were entered. The strongest predictors of Depression were scores on the General Functioning subscale of the Family Assessment Device ( $\beta = .44, t = 3.3, p < .003$ ), education ( $\beta = -.38, t = -.27, p < .01$ ), and Acculturative Stress ( $\beta = .41, t = 2.6, p < .01$ ). These three variables accounted for 35% of the variance in Depression scores. None of the other variables were significant predictors of Depression. The overall equation accounted for 39% of the variance in Depression ( $F = 4.0, p < .005$ ).

As noted, the present findings indicated that 78% of the sample had scores high enough to be considered clinically depressed. This percentage appears to be extremely high. As a comparison, Vega, Kolody, and Valle (1986) estimated that 20% of individuals from general population samples reach such levels on the CES-Depression. It should be noted that the high overall rate of depression found in the present sample does not imply that all Central American immigrants *per se* are highly depressed but that the experiences of being an immigrant potentially influence psychological status. The present findings strongly suggest, for example, that those Central American immigrants who experience high acculturative stress may also experience high depression. The present findings, however, suggest that effective family and social support, hopefulness toward the future, and high education and income may serve to protect against depression during the acculturative process.

The variability in education and income suggests that the sample consists of a highly diverse group of participants. Some Central Americans may have migrated chiefly for economic reasons whereas the migration of others may have been more politically motivated. Berry (1990) noted the importance of considering how premigration factors may relate to adaptive functioning after immigration. Given the recent sociopolitical climate, for example, civil war and violence, government repression, and the resulting trauma, in Central American countries such as El Salvador, Guatemala, and Nicaragua, some individuals in the present sample may have felt "pushed" from their country of origin. Other individuals may not have experienced trauma and may have thus migrated more voluntarily. Exposure to premigration trauma may account for greater distress after immigration.

Given the cross-sectional nature of the study, data were not available to

parse the voluntary and involuntary statuses of individual migration. Researchers should assess premigration variables and their influence on adaptive functioning after immigration. These variables include the reasons for immigration, the type and quantity of premigration trauma, and the premigration coping abilities of immigrants.

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