10
Suicidality Among Acculturating Mexican Americans: Current Knowledge and Directions for Research

Joseph D. Hovey and Cheryl A. King

Despite the dramatic increase in Mexican-American immigration over the past two decades, the acculturative experience and its relationship to suicide risk have received little attention within the field of suicidology. This paper summarizes findings from community-based studies that have explored suicide and risk factors among immigrant and Mexican-American groups, and suggests directions for future research. Most of these studies have been epidemiologic, and relatively few have addressed risk and protective factors within well-defined acculturating groups. Further study of the full continuum of suicidal thoughts and behaviors that examines precise cultural risk factors, and uses methodologies that combine quantitative and qualitative data, may improve our understanding of suicide risk among acculturating Mexican Americans.

I don't know how my future will be because sometimes I feel as if the world was standing on its head and as if day to day I become sick and my head hurts. Rejection from those I love hurts. I feel as if I don't matter. I think my future will worsen, each day a bit more. . . . I don't know if it will be better. I don't know and I am not interested in knowing. Life for me is not worth anything now, nor will it ever. . . . (17-year-old male immigrant of Mexican descent) (Hovey & King, 1996, p. 1189)

The thought that suicide may stem from the lack of meaningful social interactions and close relationships within the community dates back to Durkheim (1897/1951). According to Durkheimian thought, "anomie" sets in and individuals are at a higher risk for suicide when the accustomed relationship between the individual and his or her society is shattered. This may occur when an individual migrates to a new country. In the new country an individual may feel pulled between the values of his or her ethnic group and that of the mainstream society. Caught in this state, certain individuals may experience heightened levels of psychological distress. This suggests that – during the acculturative process – immigrants may be at an increased risk for suicidal ideation and behavior.

Acculturative stress is a term currently used (e.g., Berry & Kim, 1988; Padilla, Cervantes, Maldonado, & Garcia, 1988; Williams & Berry, 1991) to describe the stress that directly results from, and has its source in the acculturative process. According to Williams and Berry (1991), acculturative stress may result in a particular set of emotions and behaviors including depression and anxiety, feelings of marginality and alienation, heightened psychosomatic symptoms, and identity confusion.

MODEL OF ACCULTURATIVE STRESS

Berry and Kim (1988) and Williams and Berry (1991) present a conceptual framework for studying the acculturative process and its relationship to mental health.

Joseph D. Hovey is with the Department of Psychology, University of Michigan. Cheryl A. King is with the Department of Psychiatry and Psychology, University of Michigan. Address correspondence concerning this article to Joseph D. Hovey, Department of Psychology, University of Michigan, 525 E. University, Ann Arbor, MI 48109-1109. E-mail: joehovey@umich.edu

Their model identifies the cultural and psychological variables that may govern the relationship between acculturation and mental health. These include social support found within the new community; immediate and extended family support networks; socioeconomic status (SES), including work-status changes and specific characteristics of SES such as education and employment; premigration variables such as adaptive functioning (self-esteem, coping ability, psychiatric status), knowledge of the new language and culture, and motives for the move (voluntary versus involuntary); cognitive attributes such as attitudes toward acculturation (positive or negative) and expectations toward the future; and the nature of the larger society—that is, the degree of tolerance for, and acceptance of cultural diversity (multicultural versus assimilationist) within the mainstream society.

These variables may serve as "buffers" in the reduction of acculturative stress. Acculturating individuals with relatively high levels of family and social support may, for example, experience less acculturative stress than individuals without the same support. It is important to note that there is great variation in the amount of acculturative stress experienced by acculturating individuals. As Williams and Berry (1991, p. 634) state, the acculturative experience may eventually "enhance one's life chances and mental health or virtually destroy one's ability to carry on." One's acculturative outcome depends on the individual and group factors that moderate the acculturative process.

As shown in Figure 1, we have extended Williams and Berry's (1991) acculturative stress model to include possible *consequences* of heightened levels of acculturative stress. More specifically, we have suggested (Hovey & King, 1996) that the acculturative experience leads to varying levels of acculturative stress, and that elevated levels of acculturative stress may result in significant levels of depressive symptoms and suicidal ideation. Figure 1 illustrates this connection and lists the factors that possibly moderate levels of acculturative stress, depression, and suicidal ideation. The broken arrows represent influences that are probabilistic rather than deterministic.

SUICIDALITY WITHIN IMMIGRANT POPULATIONS

Scant attention has been given to the study of suicidality within immigrant populations. Moreover, those studies that do involve immigrant populations (e.g., Boor, 1981; Lester, 1989; Stack, 1981a, 1981b; Trovato, 1986a, 1986b) have usually focused on immigrants in a general sense, not on immigrants of specific ethnic groups, and have focused on completed suicide rate as the variable of study, rather than the continuum of suicidal thoughts and behaviors.

As an example of such a study, Trovato (1986a) examined suicide mortality within a data set consisting of several ethnic-immigrant groups in Canada (English–Welsh, American Scottish, Irish, German, Italian, Portuguese, other foreign born). He evaluated three dimensions of immigration–ethnicity: the assimilation thesis, which supposes that the greater the degree of social assimilation among immigrant-ethnic groups, the greater the suicide rate; the ethnic community integration explanation, which predicts that immigrant-ethnic groups with strong levels of community cohesiveness reveal reduced suicide rates; and the socioeconomic hypothesis, which states that immigrant-ethnic groups with greater socioeconomic levels reveal lower suicide rates. Analyzing the immigrant-ethnic groups together as a whole, Trovato conducted a factor analysis on aggregated social demographic characteristics and a consequent multiple regression analysis (on the factors corresponding to the three dimensions of immigration–ethnicity). He found some support for the assimilation and ethnic community integration hypotheses.
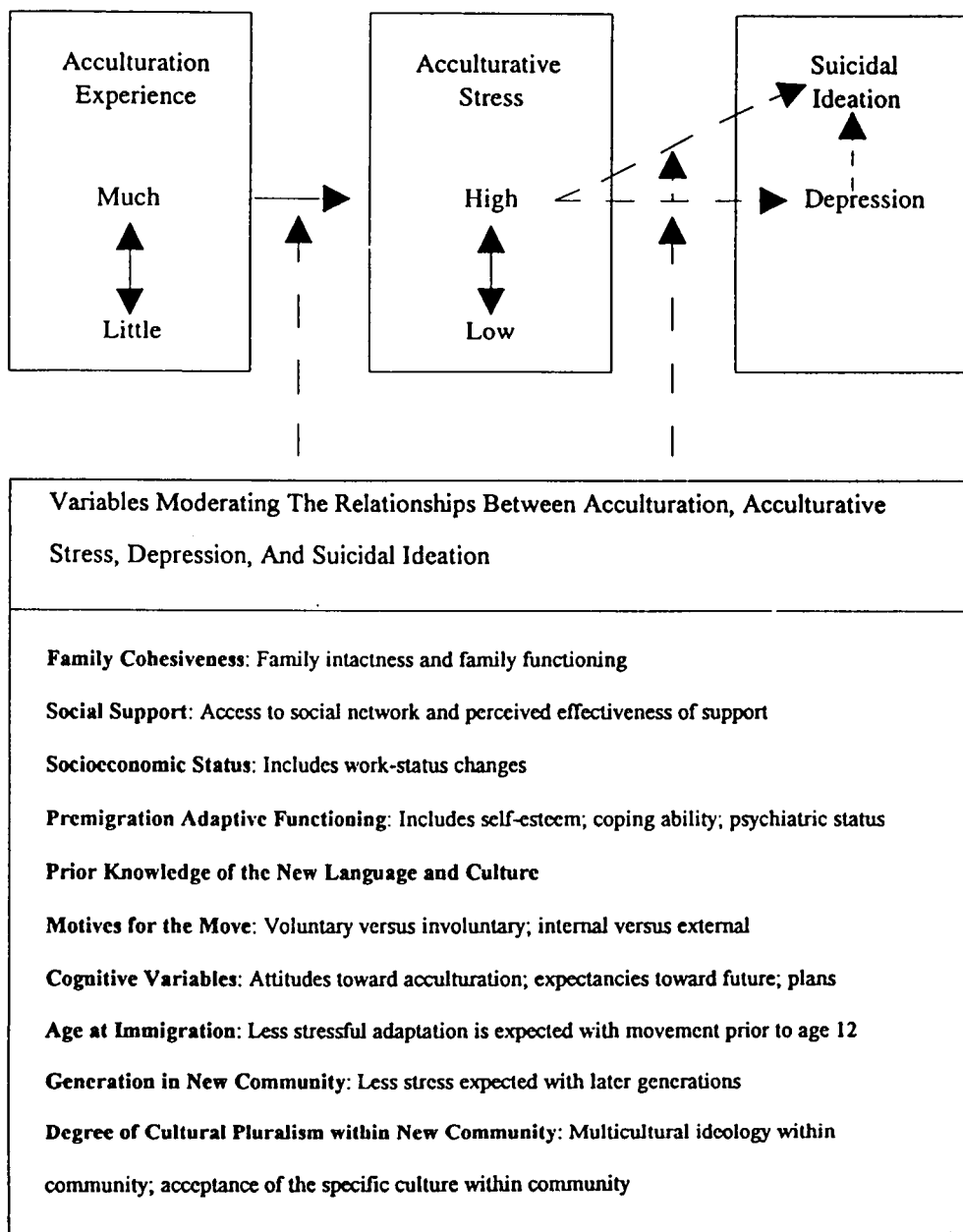
Figure 1. Model of acculturative stress, depression, and suicidal ideation.

SUICIDALITY AMONG MEXICAN AMERICANS

When looking at suicidality within the more specific immigrant–ethnic population of Mexican Americans, we again find little research. There are only a handful of studies exploring suicidality within the Mexican-American population. Most of these studies concentrate on adults. As examples, in a pair of community-based studies, Sorenson and Golding (1988a, 1988b) examined lifetime rates of suicidal ideation and suicide attempts among Lat-

inos and non-Latino Whites. In the first study (Sorenson & Golding, 1988a), Mexican Americans born in Mexico revealed significantly lower age- and gender-adjusted lifetime rates of suicidal ideation (4.5%) than Mexican Americans born in the United States (13.0%), who revealed significantly lower rates than non-Latino Whites born in the United States (19.2%). Adjusted rates of suicide attempt were lowest among Mexican Americans born in Mexico (1.6%) and higher among both Mexican Americans (4.8%) and non-Latino Whites (4.4%) born in the United States. In the second study (Sorenson & Golding, 1988b), fewer Latinos (of which 87% were Mexican American) reported suicidal ideation (8.8% vs. 18.9%) and suicide attempts (3.2% vs. 5.1%) than non-Latino Whites.

Concerning suicide mortality, Smith, Mercy, and Warren (1985) compared suicide rates among Anglos and Latinos (of which 86% were Mexican American) in five southwestern states and found that, for all ages, the suicide rate for Latinos (9.0) in the area was less than that for Anglos (19.2). This discrepancy between groups, however, was less for adolescents (ages 15–19), as the suicide rate for Latino adolescents was 9.0 compared to 11.9 for Anglo adolescents. Suicides, moreover, occurred at a younger age for Latinos (32.9% under age 25) than for Anglos (17.3% under age 25). Anatore and Loya (1973), Hatcher and Hatcher (1975), and Hoppe and Martin (1986) also found that suicide rates for Mexican Americans declined with age. This pattern contrasts to the pattern typically found among both Anglos and individuals in Mexico, and thus suggests that suicide among Mexican Americans is more of a youthful phenomena.

As alluded to, very few studies (Hovey & King, 1996; Loya, 1976; Swanson, Linskey, Quintero-Salinas, Pumariega, & Holzer, 1992) have investigated suicidality among Mexican-American adolescents. Swanson et al. (1992) explored suicidal ideation, depressive symptoms, and drug use in a sample of Mexican and Mexican-American adolescents (ages 11–19) at-tending school in six border cities in Texas and neighboring Mexico. In comparison to the Mexican adolescents, the Mexican-American adolescents reported higher rates of current suicidal ideation (23.4 vs. 11.6%), depressive symptoms (48.1% vs. 39.4% scored above 16 on the Center for Epidemiologic Studies Depression Scale, which constitutes the scale's cutoff for determining caseness), and illicit drug use (21% vs. 5%). To explore the relationship between variables, the authors utilized logistic regression analyses and found a strong linkage between depressive symptoms, drug use, and suicidal ideation within adolescents of both countries.

Hovey and King (1996) explored the relationship between acculturative stress, depressive symptoms, and suicidal ideation in a sample of immigrant and second generation Latino-American (87% Mexican–American) adolescents. One fourth of the adolescents reported critical levels of depression and suicidal ideation, which were correlated positively with acculturative stress ($p < .01$ and $p < .001$, respectively). The authors used multiple regression analyses to explore the best predictors of elevated levels of acculturative stress. They found that perceived family dysfunction and nonpositive "expectations for the future" were significant predictors of acculturative stress; and that acculturative stress, perceived family dysfunction, and nonpositive "expectations for the future" were significant predictors of depression and suicidal ideation. Their overall results suggest that some acculturating Latino adolescents experience high levels of acculturative stress, and that these adolescents are also "at risk" for experiencing critical levels of depression and suicidal ideation. Positive family functioning and positive expectations towards the future may act as buffers against acculturative stress.

DEPRESSION AND PSYCHIATRIC SYMPTOMATOLOGY AMONG MEXICAN AMERICANS

As with suicidality, relatively few studies of depression in the Mexican-American

population exist and, again, most of these focus on adults. There are, moreover, no consistent findings in this area. In looking at the relationship between acculturation level and depression, for example, some findings (e.g., Salgado de Snyder, 1987; Vega, Kolody, Valle, & Hough, 1986; Vega, Warheit, Buhl-Auth, & Meinhardt, 1984; Vega, Warheit, & Palacio, 1985) suggest that acculturation level is negatively associated to depressive symptoms, whereas other studies find either the opposite connection (e.g., Burnam, Hough, Karno, Escobar, & Telles, 1987; Golding & Burnam, 1990) or no relationship between acculturation and depressive symptoms (e.g., Burnam, Timbers, & Hough, 1984; Griffith, 1983; Moscicki, Locke, Rae, & Boyd, 1989).

Vega et al. (1984) reported findings from an epidemiologic field study conducted among Mexican Americans and Anglos living in Santa Clara, California. The investigators found that females, those with disrupted marriages, those with low educational achievement, and those under 30 years of age had significantly higher levels of depressive symptoms than their counterparts; and that Spanish-speaking Mexican Americans reported significantly higher levels of depressive symptoms than Anglos and English-speaking Mexican Americans.

Given the relatively high prevalence of depressive symptoms reported among Mexican-American women, both Salgado de Snyder (1987) and Vega et al. (1986) explored depressive symptoms and their correlates among immigrant Mexican women. In a sample of married women in Los Angeles County, Salgado de Snyder found significant associations between levels of depressive symptoms and acculturative stress, lack of English proficiency, lack of spousal support, and lack of control over the decision to migrate. Similarly, Vega et al., in a sample of Mexican immigrant women in San Diego County, found significant associations between depressive symptoms and recent migration, low family income, low educational achievement, reduced health sta-

tus, disrupted marital status, and the lack of confidant support. Both Salgado de Snyder's and Vega et al.'s samples revealed a high prevalence of depression (64% caseness on CES-D and 42% caseness on CES-D, respectively). Their overall findings suggest that a relatively high proportion of Mexican immigrant women may be at risk for the development of psychological problems.

Vega et al. (1985) explored psychiatric symptomatology within a sample of Mexican-American farmworkers in central California and found associations between level of psychiatric symptoms, environmental stressors, and reduced health status. Middle-aged individuals reported elevated symptom levels. The authors conjectured that middle age is an especially high-risk period for farmworkers since significant occupational and life hazards exist to degrade farmworker's health and functional capacities, and farmworkers have few available resources for health maintenance or preventive care. According to Vega et al., the severe lifestyle (high frequencies of environmental stressors, including hazardous working conditions) of Mexican-American farmworkers places them at extraordinary psychiatric risk.

Contrary to the above four studies, the findings of Burnam et al. (1987) and Golding and Burnam (1990) do not suggest a negative association between depressive symptoms and acculturation level. Burnam et al. looked at acculturation and lifetime prevalence of major DSM-III (American Psychiatric Association, 1980) psychiatric disorders among Mexican-American adults in Los Angeles. The authors found that the group of Mexican Americans they defined as "more acculturated" had increased lifetime rates of phobia and substance abuse or dependence; and that United States-born Mexican Americans had a higher prevalence of depressive disorders than did immigrant Mexican Americans. Similarly, Golding and Burnam, in their assessment of depressive symptoms among Mexican Americans in Los Angeles, found that U.S.-born Mexican Americans reported

more depressive symptoms than immi-grant Mexican Americans. Tests of inter-action terms suggested that the U.S.-born Mexican Americans were more vulnerable to the effects of low acculturation than were the immigrant Mexican Americans. According to the authors, this immigrant status difference was possibly due to un-measured variables such as the selective migration of persons with better coping skills and the selective return of depressed individuals to Mexico.

Only a handful of studies (Emslie, Wein-berg, Rush, Adams, & Rintelmann, 1990; Hovey & King, 1996; Roberts & Sobhan, 1992; Swanson et al., 1992; Weinberg & Emslie, 1987) have addressed depression among Mexican-American adolescents. Generally, these studies revealed a high prevalence of depressive symptoms among Mexican-American adolescents in comparison to both Anglo adolescents (Emslie et al., 1990; Roberts & Sobhan, 1992; Weinberg & Emslie, 1987) and Mexi-can adolescents (Swanson et al., 1992).

FATALISM AND CATHOLICISM

It should be noted that both the concept of fatalism and the Catholic religion have been theorized to affect levels of psycho-logical distress within the Mexican-American population. A long-standing as-sumption among behavioral scientists (e.g., Edmonson, 1957; Madsen, 1973) is that fatalism (external control) is a promi-nent characteristic of Mexican-American culture. As stated by Madsen (1973, p. 18), within Mexican-American culture "it is generally believed that the good or bad fortune of the individual is predestined and every occurrence in human existence comes to pass because it was fated to do so." A belief in external control is associ-ated with psychological distress because it reduces both the will and the ability to cope with life's problems (Pearlin, Lieber-mann, Menaghan, & Mullan, 1981). Other authors (e.g., Casavantes, 1970), however, have argued that fatalism is not a charac-teristic of Mexican-American culture, but

a function of socioeconomic factors. Mexi-can Americans are fatalistic because they tend to be poor.

Previous research on fatalism among Mexican Americans have revealed incon-sistent findings. For example, Buriel and Rivera (1980) found that ethnic differ-ences in locus of control disappeared when they statistically controlled for family in-come. Their findings lend support to the notion of fatalism as a class-bound charac-teristic. Chandler (1979), on the other hand, controlled for occupation and educa-tion and found that Mexican Americans were more likely than Anglos to believe in external control. Mirowsky and Ross (1984) and Ross, Mirowsky, and Cocker-ham (1983) controlled for income and found that fatalistic attitudes among Mexican Americans resulted in greater levels of depressive symptoms. They sug-gested that this relationship is counter-balanced by protective aspects of Mexi-can-American culture, such as strong levels of family support and social sup-port.

Another long held belief is that the Catholic religion is an inherent part of Mexican-American culture (Mosqueda, 1986). Catholicism may influence suicide among Mexican Americans in a couple of ways. First, the Catholic religion itself may serve as a deterrent against suicide. Within the religion it is considered a sin to take a life under any circumstances, and religious concepts — such as the belief in an afterlife — may make suffering more en-durable and thus lower the risk for suicide. Thus, given Catholicism's ideology, those most involved religiously would be ex-pected to reveal less suicide (Maris, 1981; Stack, 1992).

The Catholic religion may further play a protective role through its influence on cultural norms. Within Mexican-Ameri-can culture, religious ceremonies (e.g., Baptism, Communion, Confirmation, the Quinceañera, the "Day of the Dead" cele-bration) are considered social events. These celebrations strengthen bonds among family and friends, and extend support systems. As an example, the bap-

tismal ceremony is the foundation for *compadrazgo* (being a Godparent). A *compadre* (Godparent) is expected to accept religious and social obligations to the Godchild and the Godchild's family. These responsibilities are usually accepted even during those instances when compadres do not consider themselves to be religious (Mosqueda, 1986). Thus, oftentimes the responsibilities formed through religious ceremonies such as compadrazgo function primarily as social obligations.

METHODOLOGICAL CONSIDERATIONS

In looking over past research on suicide and risk factors among immigrant and Mexican-American groups, several methodological issues of importance stand out. First of all, as noted earlier, several studies of suicidality within immigrant (e.g., Boor, 1981; Lester, 1989; Stack, 1981a, 1981b; Trovato, 1986a, 1986b) and Mexican-American samples (e.g., Anatore & Loya, 1973; Hatcher & Hatcher, 1975; Hoppe & Martin, 1986; Smith et al., 1985) have focused on suicide rate. These studies have been especially helpful in detailing both the connection between suicide rate and immigrant status, and the elevated suicide rates within specific Mexican-American age groups. At the same time, however, the predominance of such investigations highlights the paucity of research pertinent to the full continuum of suicidal behavior. For example, to our knowledge, only four published studies (Hovey & King, 1996; Sorenson & Golding, 1988a, 1988b; Swanson et al., 1992) have explored suicidal ideation among Mexican Americans. Of these, only Sorenson and Golding (1988a, 1988b) have examined suicide attempts among Mexican Americans. Further exploration of variables that are sometimes precursors to suicide — suicidal ideation and nonlethal attempts — among immigrants and acculturating Mexican Americans is thus imperative, as is the need for precise measurement and statistical analyses of the variables of theoretical interest (e.g., when possible, using regression analyses to explore specific conceptually based research questions).

The second issue of concern relates, to some degree, to the notion of variance within acculturating groups. A large proportion of past research on immigrants, in general, and Mexican-American immigrant–ethnic groups, in specific, either fails to address or ignores variability within groups (see Zuckerman, 1990, for a discussion of the exploration of variance within groups). In the studies that investigated the relationship between immigrant status and suicide rate (e.g., Boor, 1981; Lester, 1989; Stack, 1981a, 1981b; Trovato, 1986a, 1986b), the groups of interest consisted of immigrants of different ethnicities. Such studies, however, are inherently limited. Although these studies are valuable in pointing out the connection between immigrant status and suicide rate, they fail to provide new information about specific ethnic groups. To some extent, the findings of such studies depend on particular sets of immigrants sampled. Lester (1989, p. 1298) appears to recognize this when he states that the replication of findings on the relationship between immigration and suicide rate depends on the "particular sample nations chosen for the analyses." We need to acknowledge that characteristics among particular ethnic groups may vary. Immigrant Irish Americans, for example, may reveal variables of interest that differ from those of immigrant Japanese Americans. Given these concerns, a study such as that reported by Smith et al. (1985), which explores suicide rate within a specific ethnic context, is welcome.

We must also acknowledge variability within particular ethnic populations. For example, several studies have compared the prevalence of suicidality (e.g., Hoppe & Martin, 1986; Sorenson & Golding, 1988a, 1988b; Smith et al., 1985) or symptomatology (e.g., Burnam et al., 1984; Roberts & Sobhan, 1992; Vega et al., 1984) among Mexican Americans and Anglos.

This is useful for epidemiological purposes. Until somewhat recently, we had no information pertaining to the prevalence of depressive and other psychiatric symptomatology among ethnic minority populations (see Vega & Rumbaut, 1991). However, there are major difficulties inherent in any effort to generalize across the entire acculturating Mexican-American population. It is difficult to answer questions such as:

Are Mexican Americans more depressed than Anglos?
Are Mexican Americans more at risk for developing psychiatric disorders?

Some studies suggest yes. Some studies do not. These questions are very general and it is almost impossible to make general statements, given the variance found within the population of acculturating Mexican Americans.

Not all Mexican Americans are suicidal or depressed. It seems likely, for example, that migrant farmworkers living a severe, migratory lifestyle may be more prone to distress than individuals living a more stable, supported (by family and community) lifestyle in Los Angeles. What is important is that we rephrase our questions of interest; for example:

Which Mexican Americans are depressed?
Which Mexican Americans are suicidal?
What are the (immediate) factors that contribute to or buffer suicidality and depression found among Mexican Americans?

Some researchers have begun to explore risk within the Mexican-American population. For example, we have findings that suggest that some immigrant women (e.g., Salgado de Snyder, 1987; Vega et al., 1986), adolescents experiencing high levels of acculturative stress (Hovey & King, 1996), and farmworkers (Vega et al., 1985) may be at extreme risk for the development of psychiatric problems. On the other hand, variables such as (among others) family support (e.g., Hovey & King, 1996; Vega, Kolody, Valle, & Weir, 1991),

social support (e.g., Padilla et al., 1988), spousal support (Salgado de Snyder, 1987; Sorenson & Golding, 1988b), positive cognitive attributes (Hovey & King, 1996), and English-language proficiency (Padilla et al., 1988; Salgado de Snyder, 1987; Vega et al., 1985) may help buffer against distress.

This last point closely relates to our third methodological consideration, namely the need to identify and examine the precise aspects of culture that relate to suicidality and depressive and other symptomatology. As mentioned, several "cross-cultural" studies have looked at suicidality and depression among immigrants and Mexican Americans through the use of comparison groups. This type of research, however, does not address the question "What about the culture influences suicidality and depression?" It is one thing to note that a specific cultural group is at risk. It is something else to begin to answer the question of why specific individuals within the group may be at risk. We can begin to answer the question of why by striving to be precise with our research – that is, by being specific with our research questions, our theoretical constructs of interest, our corresponding operational definitions and measures, and the characteristics of populations sampled.

As an example, Betancourt and Lopez (1993) note that several studies – in examining the relationship between level of acculturation and psychological distress – confound the notions of acculturation and acculturative stress in their interpretations of results. Level of acculturation may also indirectly reflect other less general variables such as "adherence to specific cultural values." To better measure specific cultural influences without the possible confounding of variables, researchers should incorporate specific measures of culture-relevant variables (e.g., using an acculturative stress scale if pertinent to the conceptual model).

Finally, past studies of suicidality and depression among immigrant and Mexican-American groups rarely have made

use of qualitative methodology. In this literature there is very little, for example, that is reported in respect to open-ended interviews (for an example, see Padilla et al., 1988). Although qualitative methodology, by itself, does not give us the same statistical power as quantitative methods, in conjunction they can be very revealing. Adding qualitative methods – in a research design – to those more quantitative allows for a depth and richness in the data. As a result of the lack of qualitative data in past research, a "sense of the individual," a sense of individual experience, is almost completely missing. Certainly it is rare that we find a quotation such as the one that begins this article.

EXAMPLE OF QUALITATIVE METHODOLOGY

Let us briefly turn our attention back to Hovey and King (1996). As noted earlier, in a sample of immigrant and second-generation Latino-American (87% Mexican American) adolescents, we examined the relationship between acculturative stress, depressive symptoms, and suicidal ideation; and determined the best predictors of elevated levels of acculturative stress, depression, and suicidal ideation. For this particular study, our research design was guided by the model of acculturative stress, depression, and suicidal ideation (see Fig. 1) that we presented earlier. Using multiple regression analyses, we found that there were significant relationships between acculturative stress, depression, and suicidal ideation; that perceived family dysfunction and nonpositive "expectations toward the future" were significant predictors of acculturative stress; and that acculturative stress, perceived family dysfunction, and nonpositive expectations toward the future were significant predictors of depression and suicidal ideation. Thus, within this sample, it appears that those acculturating individuals experiencing heightened levels of acculturative stress are "at risk" for experiencing critical levels of depression and suicidal ideation, and that

family support and positive expectations toward the future may moderate (buffer against) levels of distress (for a more thorough discussion of these findings, we refer the reader to Hovey & King, 1996). It is our belief that the acculturative stress model holds promise for future research of depression and suicidal ideation among acculturating groups.

In designing that study (Hovey & King, 1996) we were also guided by the methodological concerns discussed in the present paper. For example, to help ascertain which acculturating adolescents are at risk, we explored within-group differences; and in comparison to previous studies of depression and suicidal ideation among acculturating Mexican Americans, we used acculturative stress (focusing on degree of difficulty experienced by acculturating individuals) as our "starting point," rather than level of acculturation. In addition, to further gather an experiential sense of the acculturating adolescents, we collected qualitative data. In measuring expectations toward the future, we asked, "What do you think the future will be like for you and your family?" We coded each response as positive (hopeful), neutral, or nonpositive (nonhopeful).

An underlying theme of the present paper has been that of "not losing a sense of the individual." In keeping with this theme, we would like to take this opportunity to share some of the adolescents' responses to the question concerning their future. These responses are revealing in that they deliver a sense of richness, immediacy, and individual experience not found in mere numbers.

The first response is from a 17-year-old female and points to the possible links among future expectations, family support, and acculturative stress:

Well, I hope and trust in God that my family's future will be better. I hope that I will become something in life and that my family will be proud of me. I hope that we will all understand each other better and that everyone's dreams will be realized.

These next responses reveal the desire for, and the notion that hard work can lead to happiness and success:

I think that only by moving forward can our future be good; not a success but not one of sadness either. I think that it will go well if we set our minds to it, and always forge ahead with much effort. (15-year-old female)

Well, I think it can be a good future, because I'll be able to graduate and study a career that will help me triumph [succeed] in the future. All in my family plan to better ourselves for our own well-being. (16-year-old female)

I will study until I learn English and graduate; to have a good job and be able to help my family in the future; and not to have more problems between my family and me. (16-year-old male)

My future depends on how I live now but I think that if we all continue to work as we have, our future will be good. Although I would like to have my own family, I would like for my family's plans and goals to become a reality; one of these is to live happily and financially well off as a good and happy family. That is all that I think can be done in order to have a good happy future. (19-year-old female)

These last two responses are from adolescents who reveal nonhopeful outlooks toward their future. The first is from an 18-year-old female, briefly expressing her outlook in a blunt manner. The second is from a 17-year-old male who reveals sarcasm in expressing his dissatisfaction with his current life situation:

It will be depressing.

I'm going to go to Mexico to live with my father. My mother is going to be rich and old.

CONCLUSION

The immigrant population in the United States has increased dramatically over the past two decades. This increase is best represented through statistics, which are compelling. Nearly half of the immigrant population in the United States (21.2 million as of 1990) has entered the country since 1980 (Passel & Edmonston, 1992). About one fourth of the nation's immigrant population arrive in California (approximately 250,000 each year) (Stewart, 1993). According to the 1990 census figures (U.S. Department of Commerce,

1993), Latino individuals in California number more than 7.5 million (one fourth of the state's population). Of these individuals, 45% are immigrants, and 85% of these immigrants are of Mexican origin. These statistics do not take into account the undocumented and the uncounted.

Our current knowledge of suicidality among Mexican Americans is limited. However, there is evidence that suggests that some acculturating Mexican Americans may be at an increased risk for suicide. Mexican Americans in the southwest United States have revealed (Smith et al., 1985) an elevated overall suicide rate (9.0 for the period 1976–1980) in comparison to the overall suicide rate found in Mexico (0.7 in 1973) (World Health Organization, 1973). Suicide rates for Mexican Americans decline with age and thus suggest that suicide among Mexican Americans is more of a youthful phenomena. Mexican-American adults born in the United States have revealed (Sorenson & Golding, 1988a) elevated lifetime rates of suicide attempts (4.8% vs. 1.6%) and suicidal ideation (13.0% vs. 4.5%) in comparison to Mexican-American adults born in Mexico. Mexican-American adolescents have revealed (Hovey & King, 1996; Swanson et al., 1992) extremely high levels of suicidal ideation, especially in comparison to Mexican adolescents. Finally, among Mexican-American adolescents, heightened levels of acculturative stress may result in critical levels of suicidal ideation (Hovey & King, 1996). Overall, these findings suggest that acculturating Mexican Americans may feel caught between the influence of traditional values and norms and their experiences in the mainstream society.

As the statistics suggest, the Latino population (comprised predominantly of Mexican Americans) is projected (Portes & Rumbaut, 1990) to become the largest ethnic minority group in the United States by early in the next century. What is striking is that the research this paper addresses pales in comparison to these statistics. It is crucial, in other words, that future research "keeps up" with immigration rates and fully explores depres-

sion, suicidal thoughts and behaviors, and completed suicide among immigrant and specific acculturating groups. This paper has reviewed past research of suicidality and depression among immigrant and Mexican-American groups, identified methodological issues of concern, and suggested directions for future research.

Our suggestions for future research of suicide and risk factors among acculturating groups are summarized as follows:

• Further exploration of the continuum of suicidal thoughts and behavior
• Further exploration of the variance within the acculturating population
• Identification and examination of the precise aspects of culture that relate to suicide risk factors
• Research designs that combine quantitative and qualitative methods, to help gain a sense of individual experience

The importance of future research that explores suicidality and symptomatology in a precise manner cannot be understated. It is only through specificity – in the exploration of within-group risk – that research findings can become more applied and thus benefit immigrant–ethnic groups in this country.

REFERENCES

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.

Anatore, B., & Loya, F. (1973). *An analysis of minority and white suicide rates in Denver.* Paper presented at the Rocky Mountain Psychological Association, Las Vegas, NV.

Berry, J. W., & Kim, U. (1988). Acculturation and mental health. In P. Dasen, J. W. Berry, & N. Sartorius (Eds.), *Health and cross-cultural psychology: Towards application* (pp. 207–236). London: Sage.

Betancourt, H., & Lopez, S. R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist, 48,* 629–637.

Boor, M. (1981). Relationship of 1977 state suicide rates to population increases and immigration. *Psychological Reports, 49,* 856–858.

Buriel, R., & Rivera, L. (1980). The relationship of locus of control to family income and familism among Anglo- and Mexican-American high school students. *Journal of Social Psychology, 111,* 27–34.

Burnam, M. A., Timbers, D. M., & Hough, R. L. (1984). Two measures of psychological distress among Mexican Americans, Mexicans, and Anglos. *Journal of Health and Social Behavior, 25,* 24–33.

Burnam, M. A., Hough, R. L., Karno, M., Escobar, J. I., & Telles, C. A. (1987). Acculturation and lifetime prevalence of psychiatric disorders among Mexican Americans in Los Angeles. *Journal of Health and Social Behavior, 28,* 89–102.

Casavantes, E. (1970). Pride and prejudice: A Mexican-American dilemma. *Civil Rights Digest, 3,* 22–27.

Chandler, C. R. (1979). Traditionalism in a modern setting: A comparison of Anglo- and Mexican-American value orientations. *Human Organization, 38,* 153–159.

Durkheim, E. (1951). *Suicide.* (J. A. Spaulding & A. G. Simpson, Trans.). New York: Free Press. (Original work published 1897)

Edmonson, M. S. (1957). *Los Manitos: A study of institutional values.* New Orleans: Tulane University Press.

Emslie, G. J., Weinberg, W. A., Rush, A. J., Adams, R. M., & Rintelmann, J. W. (1990). Depressive symptoms by self-report in adolescence: Phase I of the development of a questionnaire for depression by self-report. *Journal of Child Neurology, 5,* 114–121.

Golding, J. M., & Burnam, M. A. (1990). Immigration, stress, and depressive symptoms in a Mexican-American community. *Journal of Nervous and Mental Disease, 178,* 161–171.

Griffith, J. (1983). Relationship between acculturation and psychological impairment in adult Mexican-Americans. *Hispanic Journal of Behavioral Sciences, 5,* 431–459.

Hatcher, C., & Hatcher, D. (1975). Ethnic group suicide: An analysis of Mexican American and Anglo suicide rates for El Paso, Texas. *Crisis Intervention, 6,* 2–9.

Hoppe, S. K., & Martin, H. W. (1986). Patterns of suicide among Mexican-Americans and Anglos, 1960–1980. *Social Psychiatry, 21,* 83–88.

Hovey, J. D., & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second generation Latino adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 35,* 1183–1192.

Lester, D. (1989). Immigration and rates of personal violence (suicide and homicide). *Psychological Reports, 65,* 1298.

Loya, F. (1976). *Increases in Chicano suicide, Denver, Colorado, 1960–1975: What can be done?* Paper presented at the American Association of Suicidology, Los Angeles.

Madsen, W. (1973). *The Mexican-Americans of South Texas* (2nd ed). New York: Holt, Rinehart, & Winston.

Maris, R. M. (1981). *Pathways to suicide: A survey of self-destructive behaviors.* Baltimore: Johns Hopkins University Press.

Mirowsky, J., & Ross, C. E. (1984). Mexican culture and its emotional contradictions. *Journal of Health and Social Behavior, 25,* 2–13.

Moscicki, E., Locke, B., Rae, D., & Boyd, J. (1989). Depressive symptoms among Mexican Americans: The Hispanic Health and Nutrition Examination Survey. *American Journal of Epidemiology, 130,* 348–360.

Mosqueda, L. J. (1986). *Chicanos, Catholicism and*

political ideology. Lanham, MD: University Press of America.

Padilla, A. M., Cervantes, R. C., Maldonado, M., & Garcia, R. E. (1988). Coping responses to psychosocial stressors among Mexican and Central American immigrants. *Journal of Community Psychology, 16,* 418-427.

Passel, J. S., & Edmonston, B. (1992). *Immigration and race in the United States: The 20th and 21st centuries.* Washington, DC: The Urban Institute.

Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior, 22,* 337-356.

Portes, A., & Rumbaut, R. G. (1990). *Immigrant America: A portrait.* Berkeley: University of California Press.

Roberts, R. E., & Sobhan, M. (1992). Symptoms of depression in adolescence: A comparison of Anglo, African, Hispanic Americans. *Journal of Youth and Adolescence, 21,* 639-651.

Ross, C. E., Mirowsky, J. & Cockerham, W. C. (1983). Social class, Mexican culture, and fatalism: Their effects on psychological distress. *American Journal of Community Psychology, 11,* 383-399.

Salgado de Snyder, V. N. (1987). Factors associated with acculturative stress and depressive symptomatology among married Mexican immigrant women. *Psychology of Women Quarterly, 11,* 475-488.

Smith, J. C., Mercy, J. A., & Warren, C. W. (1985). Comparison of suicides among Anglos and Hispanics in five southwestern states. *Suicide and Life-Threatening Behavior, 15,* 14-26.

Sorenson, S. B., & Golding, J. M. (1988a). Prevalence of suicide attempts in a Mexican-American population: Prevention implications of immigration and cultural issues. *Suicide and Life-Threatening Behavior, 18,* 322-333.

Sorenson, S. B., & Golding, J. M. (1988b). Suicide ideation and attempts in Hispanics and non-Hispanic Whites: Demographic and psychiatric disorder issues. *Suicide and Life-Threatening Behavior, 18,* 205-218.

Stack, S. (1981a). Comparative analysis of immigration and suicide. *Psychological Reports, 49,* 509-510.

Stack, S. (1981b). The effect of immigration on suicide: A cross-national analysis. *Basic and Applied Social Psychology, 2,* 205-218.

Stack, S. (1992). Marriage, family, religion, and suicide. In R. W. Maris, A. L. Berman, J. T. Maltsberger, & R. I. Yufit (Eds.), *Assessment and prediction of suicide* (pp. 540-552). New York: Guilford Press.

Stewart, D. W. (1993). *Immigration and education: The crisis and the opportunities.* New York: Lexington Books.

Swanson, J. W., Linskey, A. O., Quintero-Salinas, R., Pumariega, A. J., & Holzer, C. E. (1992). A binational school survey of depressive symptoms, drug use, and suicidal ideation. *Journal of the American Academy of Child and Adolescent Psychiatry, 31,* 669-678.

Trovato, F. (1986a). Suicide and ethnic factors in Canada. *International Journal of Social Psychiatry, 32*(3), 55-64.

Trovato, F. (1986b). A time series analysis of international immigration and suicide mortality in Canada. *International Journal of Social Psychiatry, 32*(2), 38-46.

U.S. Department of Commerce. (1993). *1990 census of population: Social and economic characteristics of California.* Washington, DC: U.S. Department of Commerce.

Vega, W. A., Kolody, B., Valle, R., & Hough, R. (1986). Depressive symptoms and their correlates among immigrant Mexican women in the United States. *Social Science and Medicine, 22,* 645-652.

Vega, W. A., Kolody, B., Valle, R., and Weir, J. (1991). Social networks, social support, and their relationship to depression among immigrant Mexican women. *Human Organization, 50,* 154-162.

Vega, W. A., & Rumbaut, R. G. (1991). Ethnic minorities and mental health. *Annual Review of Sociology, 17,* 351-383.

Vega, W. A., Warheit, G., Buhl-Auth, J., & Meinhardt, K. (1984). The prevalence of depressive symptoms among Mexican Americans and Anglos. *American Journal of Epidemiology, 120,* 592-607.

Vega, W. A., Warheit, G., & Palacio, R. (1985). Psychiatric symptomatology among Mexican American farmworkers. *Social Science and Medicine, 20,* 39-45.

Weinberg, W. A., & Emslie, G. J. (1987). Depression and suicide in adolescents. *International Pediatrics, 2,* 154-159.

Williams, C. L., & Berry, J. W. (1991). Primary prevention of acculturative stress among refugees: Application of psychological theory and practice. *American Psychologist, 46,* 632-641.

World Health Organization (1973). Vital statistics and cause of death. In *World health statistics annual.* Geneva: Author.

Zuckerman, M. (1990). Some dubious premises in research and theory on racial differences: Scientific, social, and ethical issues. *American Psychologist, 45,* 1297-1303.