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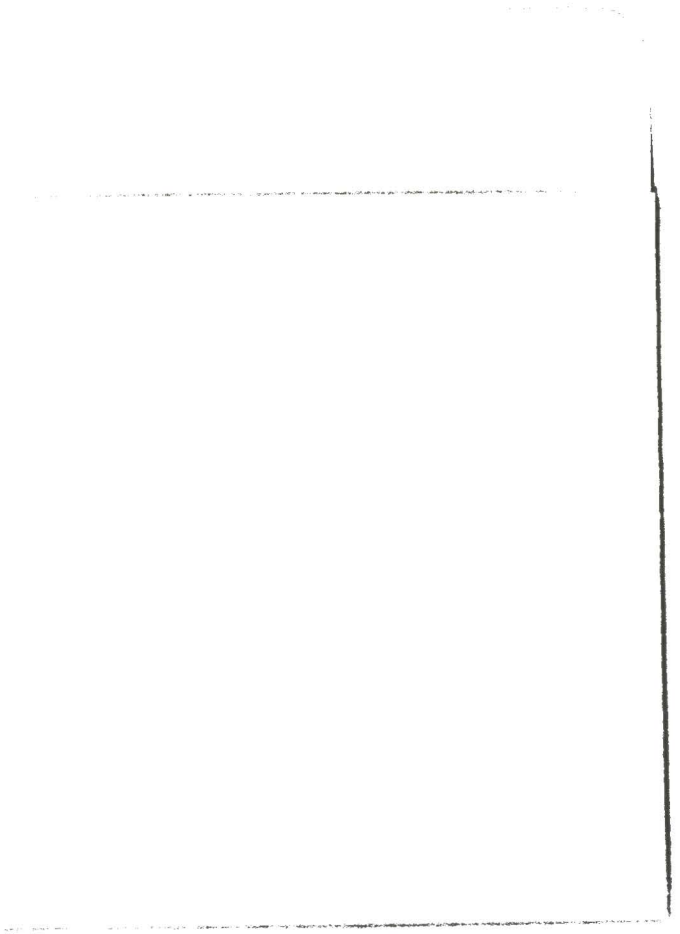

ACCULTURATION AND PSYCHOLOGICAL

DISTRESS IN MEXICAN-AMERICAN

HEALTH FAIR PARTICIPANTS

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ACCULTURATION AND PSYCHOLOGICAL DISTRESS IN MEXICAN-AMERICAN HEALTH FAIR PARTICIPANTS

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Immigrants who have integrated into their host culture along with maintaining their cultural identity have better psychological well-being. Greater degrees of psychological distress in less acculturated immigrants may occur due to stressors associated with the transition. This isolation has prevented providers from addressing their mental health needs. This project studied psychological well-being as it relates to acculturation. Self-report questionnaires were offered at the Hispanic Health Fair in Fort Worth, Texas. Psychological distress was significantly higher for the low acculturated (LA) than the moderately acculturated (MA). Specifically, a higher degree of anxiety for the LA group was found compared to the MA. The difference in depression was not significant, however results suggest that mild psychological distress is likely prevalent in the LA. Results underscore the importance of gaining knowledge about the needs of Mexican-Americans that are rarely seen within traditional health service.

Acculturation and Psychological Distress in Mexican-American Health Fair Participants

Many studies examine the prevalence of psychological distress among Mexican-Americans (Roberts, 1981; Roberts, 1980; Burnam, Hough, Karno, Escobar & Telles, 1987; Golding & Burnam, 1990; Tran, Fitzpatrick, Berg, & Wright, 1996). However, none of those studies have used participants of health fairs. Roberts (1980) found few differences between Chicanos and the overall population with respect to psychological distress, however when acculturation is added to the model, results change. Acculturation has been defined as psychological changes that occur when individuals originating from one culture immigrate to a new host culture (Burnam et al., 1987). It has also been defined as the process by which individuals change in response to contact with another culture (Berry, 1990). This process can occur voluntarily among immigrants or involuntarily among indigenous people and refuges (Dana, 1996).

The process of acculturation is thought to lead to four possible alternatives: assimilation, integration, separation, and marginalization (Berry, 1990). In assimilation, individuals relinquish their cultural heritage and identity and embrace the cultural identity of the host culture. Those who have integrated, have embraced the host's culture without relinquishing the values, beliefs, and practices of the culture of origin. This type of individual would speak the language of both cultures, participate in economic, social, and political domains of the host country, and develop friendships with people originating from the host country. For those who are in the separation stage, they maintain a close tie to their cultural heritage and do not adopt the culture of the host country. Finally, marginalization represents a loss and alienation in which people reject their own cultural heritage and the culture of the

settlement. Berry and Sam (1998) found a positive correlation between being integrated into the host culture and healthy psychological adaptation during the acculturation process.

A major focus of acculturation research has been in studying the difference between Mexican-Americans and Anglo-Americans. According to the U.S. Census (2001), Mexicans accounted for 12.5% of the U.S. population and 32% of the total population in Texas. A majority of the Hispanics in the U.S. settle in Texas, New Mexico, California, or Arizona (U.S. Census, 2001). If research includes relevant cultural variables, a better understanding of health outcomes might be possible. It can serve as a way to understand the role of culture and acculturation on psychological well-being. Acculturation for Latinos can be complex and mediated by numerous variables such as previous experiences, education, and money. According to the census, 22.6% of the Latino population was under poverty level and 52.4% of this population earned a high school education. In comparison, non-Hispanic Whites had a poverty rate of 8.1% and 83.6% of the population had a high school diploma (U.S. Census, 2001).

Research varies on psychological distress and acculturation. Some authors report a positive correlation between the variables and other report a negative correlation. A majority of this research looks at language spoken comparing Spanish versus English speaking Mexican-Americans. Griffith (1983) reported that Spanish-speaking Mexican Americans suffered from significantly less psychological dysfunction that English speaking Mexican-Americans. This occurred even though anxiety was greater in Spanish speakers. Depression was not significantly different between the groups.

Similarly, Golding and Burnam (1990) found that U.S. born respondents report significantly more depression that immigrants. When demographic variables are entered into the model, level of acculturation is not a significant predictor of depression while immigration status still is. Respondents from the United States even have higher depression scores when exposure to stress, availability of social resources, and vulnerability to these variables are controlled.

A study of migrant farm workers revealed that 39% of the sample had a high level of depression. No main effects were found for gender, age, generation level, or language preference on acculturation stress, anxiety, or depression. Anxiety was in the average range for this sample. Low self-esteem, poor social support, family dysfunction, lack of agreement to live as a migrant, and higher levels of education, acculturative stress, and anxiety were related to higher levels of depression (Hovey & Magana, 2002).

Prevalence of psychiatric disorders, using DIS/DSM-III criteria, has also been examined. No relationship was found for acculturation level and prevalence of major depression, dysthymia, obsessive-compulsive or panic disorder. Mexican-Americans who were highly acculturated had significantly more phobia disorder, antisocial personality, and alcohol and drug abuse/dependence (Burnam et al., 1987).

There appears to be differences in psychological distress and acculturation between age groups. Based on CES-D scores, highly acculturated young adults had the highest CES-D scores while the highly acculturated older adults had the lowest scores (Kaplan & Marks, 1990; Krause & Goldenhar, 1992). This held irrespective of gender (Kaplan & Marks, 1990). Tran et al. (1996) found that older adults were less susceptible to financial, family, or

personal stresses, but more likely to experience social stresses. It was also noted that English proficiency and ethnicity had no direct effects on stress, but they did have significant indirect effects. The extent of the indirect effects was not examined. With elderly Hispanics, the less acculturated individuals had more self-reported health problems than those with a higher level of acculturation. However, Krause and Goldenhar (1992) found that older Hispanics do suffer from financial strain when combined with a strong ethnic identity and low language acculturation which will lead to social isolation. High acculturation served as a protective factor against financial problems and social isolation. Having more education did not lead to less depression; it leads to fewer positive self-feelings. However, when direct and indirect effects are combined, results indicate that as education level increases, older Hispanics experience fewer depressed affect symptoms. Indirect effects of education indicate that as education levels increases, people experience more positive self-feelings. It appears that this occurs through a linkage of language acculturation and financial strain.

With younger adults, being highly acculturated may cause a predisposition to isolate themselves from their less acculturated family members (Kaplan & Marks, 1990). This opposes the findings for older adults, which suggest that those who have a lower level of acculturation experience more social isolation (Krause & Goldenhar, 1992). This loss of a sense of belonging may contribute to higher depression. Also, economic and social situations may be difficult for those trying to become more acculturated (Kaplan & Marks, 1990). A study of college students found that the level of acculturation is relevant to minority status stress as opposed to psychological distress (Saldana, 1994). Saldana (1994) suggested that acculturative stress may be different from psychological functioning. However, additional

psychological distress was accounted for by including minority status stress to the model. This occurred even after controlling for college role strains.

Language preference seems to be a common independent variable used in acculturation/stress research. Tran et al. (1996), with a sample of older adults, found on direct effects of language on stress. However, language acculturation was significantly associated to financial strain and social isolation, but not to depressed or positive affect (Krause & Goldenhar, 1992). However as with previous research, there were indirect effects. Less acculturated elderly Hispanics had significantly lower depressed affect and higher positive affect scores. More acculturated Hispanics may benefit from being less acculturated because they experience fewer financial problems, less social isolation, and less depressed affect than their less acculturated counterparts (Krause & Goldenhar, 1992).

Krause and Goldenhar (1992) hypothesized that country of origin would make a difference in psychological distress (Puerto Rico versus Cuba versus Mexico). By combining indirect and direct effects, there were no overall differences in depressed affect. However, immigrants from Mexico had more positive self-feelings than those from Cuba. It was concluded that there are some variables associated to Mexican ancestry that make Mexican-Americans more likely to experience depressed affect. These negative effects are offset by other, unknown factors associated with the life of Mexican-Americans. These results were used to test a model of psychological distress and acculturation that was developed by Krause and Goldenhar (1992). They proposed that education influences acculturation which affects financial problems and social isolation, and then these would lead to psychological distress.

As noted above, key resources are not equivalent among the groups and that there seems to be group-specific factors that can be harmful or beneficial to stressful experiences.

This study was designed to determine the level of psychological well-being as it relates to acculturation for the community of Mexican-Americans who participate in community health fairs. We hypothesized that less acculturated Mexican-Americans will report less psychological distress than those who are more highly acculturated.

Method

Self-report questionnaires were offered as part of a Hispanic health fair booth in Fort Worth, Texas. This annual event was sponsored by the University of North Texas-Health Science Center in Fort Worth, Texas. The fair was advertised through flyers and newspaper advertisements. People who visited the booth saw the questionnaires and were asked to complete them and place them in a box, anonymously. Sixty people completed the surveys. Fifty-one identified themselves as Hispanic and non-Hispanics were excluded from analyses. Participants did not receive compensation for completion of the questionnaire.

Questionnaires were offered in Spanish or English. This items corresponding to the psychological distress scale of the Multidimensional Health Profile (MHP) were administered along with a 5 question acculturation index. The MHP is used to assess the overall degree of psychological disturbance, anxious affect, and depressed affect. The overall degree of psychological distress encompassed guilt/self-blame, psychomotor retardation, cognitive anxiety, and somatic/motor anxiety. Based on the normative data for this instrument, the reliabilities for the scales were .88, .75, and .79, respectively. It has a test-

retest stability of .75, .66, and .44, respectively. Cronbach's alpha (internal consistency) was 0.81 for the psychological distress scale (Ruehlman, Lanyon, & Karoly, 1998).

The 5 question general acculturation index (GAI) was developed by Balcazar, Castro, & Krull (1995) to study cancer risk in Mexican-American women. They obtained a Cronbach's alpha reliability of .82. It was also found that this measure significantly correlated with education ($p < .001$). This index inquires about language typically written and spoken, geographic location of childhood, ethnicity of friends, and degree of pride in one's Hispanic background. Answers can be chosen from a 1-5 Likert scale. To obtain the acculturation index, the answers are summed and divided by 5. As the number increase from one to five, the level of acculturation into the host culture also increased.

Demographic characteristics (see Table 1) were also collected including the presence of diabetes, cardiovascular disease, obesity, hypertension, and hyperlipidemia. Also gathered was the length of time in the U.S., first generation in the U.S., highest grade achieved, and primary language spoken at home.

Results

Scores on the acculturation index ranged from 1 – 4.2 on a 5-point scale. The average score was 2.35 (SD = .93) with a bimodal distribution. To dichotomize the acculturation index into low versus high, individuals with a score $2 \leq x < 3$ were excluded from future analyses in order to get two distinct groups. This eliminated 8 individuals. For remaining analyses, the low acculturation (LA) group had a mean acculturation score of 1.42 (SD = .28) and the moderately acculturated (MA) group had a mean acculturation score of 3.32 (SD = .33).

ANOVAs were used to compare the MA and LA group on raw scores of the psychological distress variables (see Table 2). The overall degree of psychological distress was significantly higher for LA than MA, $F(1, 35) = 8.610$, $p = .006$. T scores for overall psychological distress for each acculturation group are as follows: the LA group has a mean of 65.8 ($SD = 10.1$) and the MA group had a mean score of 57.1 ($SD = 8.3$). Analysis of psychological subscales determined a higher degree of anxiety for LA as compared to MA, $F(1, 35) = 6.901$, $p = .013$. The average T score for anxiety for the LA group is 63.4 ($SD = 10.2$) and 55.6 (SD = 7.8) for the MA group. The effect size is large, for overall psychological distress ($\eta = .44$) and for anxiety ($\eta = .41$). Power is fair to good, Power = .81 for overall distress and Power = .72 for anxiety. There was no significant difference between MA and LA on depressed affect, $F(1, 35) = 2.817$, $p = .102$, although the trend was in the same direction as anxiety. Individuals who were part of the LA group had more depressed affect than the MA group.

Post-hoc analyses were performed to identify differences between the LA and MA group on the measure of total psychological distress. Independent sample t-tests were used for this purpose. Results indicated that significant differences existed between the LA and MA groups for all aspects of total psychological disturbances, except for depressed affect, $.001 \leq p \leq .023$. Each subscale contained three questions. One item was significantly different on the anxious affect subscale, "how easily have you felt scared?" $t(35) = 3.22$, $p = .003$. The LA group ($M = 3.32$, $SD = 1.29$) scored higher than the MA group ($M = 2.22$, $SD = .65$). The most differences occurred in the guilt and somatic complaints subscales (see Table 3).

Discussion

Our findings did not support the hypothesis. With this sample of community members, those who were the least acculturated had the most overall psychological distress and more specifically, more anxiety than the moderately acculturated group. A majority of research found that those who were the least acculturated had the least amount of stress (Krause & Goldenhar, 1992; Griffith, 1983; Golding & Burnam 1990). Kaplan and Marks (1990) did find that older Hispanics experiences more social isolation if they were less acculturated. This, perhaps, is one form of psychological distress.

This sample was relatively small and there was not a wide range in acculturation. The range on the scale was 1- 4, however most individuals clustered around 1 or 3. This eliminated a highly acculturated group. Since this sample was taken from health fair participants, the population may not have been representative of all Hispanics who immigrate to the U.S. from Mexico. Krause and Goldenhar (1992) found that as education increased, depressed affect decreased, therefore if this study's population was more representative of the immigrant population from Mexico, then a different range of psychological distress may have occurred. A health fair population may have a lower socioeconomic status, therefore may have less education and subsequently less depressed affect. Walker, Crow, Sands, and Becker (1988) found that as education increases, within health fair participants, they are more likely to have a health promoting lifestyle ($p < .01$) and be responsible about their health ($p < .001$). This was not found in the comparison group. However, a health fair population may be different than a sample derived from a medical or outpatient clinic. A clinic population may be more acculturated since they have adopted the Western medical

system to a greater degree than perhaps a health fair sample. Since a clinic sample is already in the medical system, problems accessing health care may not be as big of a problem. Needs of people attending health fairs may be significantly different and perhaps more basic than other populations typically studied.

The less acculturated individuals expressed more anxiety than their more acculturated counterparts. Further analysis discovered that these more anxious individuals were concerned about feeling scared. Perhaps, they may have been scared because they had lived in the U.S. for a lesser amount of time and had not adopted the U.S. culture to a greater degree when compared to the more acculturated group. Other areas of differences that were found, via post-hoc analyses, included more thought about personal failures and guilt over those failures, fatigue, physiological arousal (shakiness and dizziness), and difficulty focusing. These differences may be explained by acculturative stress or other unknown factors.

There are public health ramifications of this study's results. A nationwide epidemiological study of those with panic disorder (a type of anxiety disorder) found that they had higher rates of poorer physical health, poorer emotional health, more substance abuse, increased health care utilization, and more attempted suicides than non-anxious, non-depressed individuals (Markowitz, Weissman, Ouellette, Lish, & Klerman, 1989). People with mental health problems affects work productivity more than physical illness, especially with decreased quality of work, loss of income, and incapacity to work for acute periods (Dewa & Lin, 2000; Edlund & Swarm, 1987). Specifically, those with anxiety reported more stress than non-anxious individuals (Mughal, Walsh, & Wilding, 1996). Anxiety is associated with less happiness, less ability to function in normal roles, and less quality of life. The

severity of these is proportional to the severity of anxiety. Effective treatment of anxiety leads to increased productivity at work and improvement in mental and physical quality of life (Davidson, 1996).

Burnam et al. (1987) suggested that individuals who immigrate to the U.S. may have better mental health than those who choose not to immigrate and, therefore, less susceptible to having a mental disorder. However, there may be some additional, unknown factors attributed to living in Texas that may be different than living in other parts of the U.S. for Mexican immigrants. Therefore, they may be more prone to psychological distress. Additional knowledge about the relationship between acculturation and psychological distress among low acculturated Mexican-Americans may aid in the development of prevention and treatment plans. A more complex model examining both indirect and direct effects may have provided additional insight into the model of psychological distress experiences by Hispanic health fair participants.

Table 1

Demographic characteristics based on level of acculturation

Characteristic	**Total* (%)**	**MA (%)**	**LA (%)**
Medical Disorder (N=51)			
Diabetes	8	11	10
Hypertension	6	6	10
Obesity	43	44	40
CVD	4	0	10
Hyperlipidemia	12	11	20
Language of questionnaires (N=43)			
Spanish	63	11	100
English	37	89	0
Primary Language at Home (N=42)			
Spanish	55	0	95
English	21	47	0
Both	24	53	5
First Generation in U.S. (N=49)			
1st	33	0	63
2nd	24	22	16
3rd	35	56	21
4th	8	22	0
Length in U.S. (N=46)			
≤ 5 years	13	0	28
6-15 years	20	0	39
>15 years	67	100	33
Highest Grade Achieved (N=41)			
≤ 8 years	27	6	37
9 – 11 years	10	6	16
12 years	39	35	42
> 13 years	24	53	5

Note. LA = low acculturated; MA = moderately acculturated

* Entire Mexican-American Sample

Table 2

Psychological Disturbance (T-scores) versus Acculturation Level

	LA	MA
Psychological Distress	65.8 (10.1)	57.1 (8.3)
Anxiety	63.4 (10.2)	55.6 (7.8)
Depressed Affect	59.4 (13.1)	52.4 (12.1)

Note. LA = low acculturated, MA – moderately acculturated

Table 3

Item Differences Between the Low Acculturated and Moderately Acculturated Groups

Question	*M*	*SD*	*p*
Guilt			
How much have you thought about your failures?			.001
LA	3.53	.90	
MA	2.39	.98	
How much have you tended to feel guilty when things go wrong?			.017
LA	3.63	1.07	
MA	2.83	.86	
Motor Retardation			
How tired have you felt?			.023
LA	3.95	.85	
MA	3.22	1.00	
Anxious Affect			
How easily have you felt scared?			.003
LA	3.32	1.29	
MA	2.22	.65	
Somatic Complaints			
How often have you felt jittery or shaky?			.008
LA	3.26	1.28	
MA	2.22	.94	
How often have you felt lightheaded or dizzy?			.004
LA	3.53	1.07	
MA	2.39	1.14	
Cognitive Disturbances			
How hard has it been to focus on the things that you do?			.004
LA	3.53	.77	
MA	2.61	1.04	

Note. LA = low acculturated; MA = moderately acculturated

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