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Acculturative Stress and Specific Coping Strategies Among Immigrant and Later Generation College Students

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Acculturative stress and specific coping strategies were assessed in a group of 214 multicultural college undergraduates of both sexes who were divided into four generational status groups: early immigrants (immigrated before 12 years of age) and late immigrants (immigrated after age 12), second-generation and third-generation. Also explored was the relationship of acculturative stress to self-esteem, locus of control and loyalty to American culture. The self-administered questionnaire contained the short version of the Padilla SAFE Acculturative Stress Measure, a loyalty toward American culture scale, Rotter's Internal/External Locus of Control scale, and the Coopersmith Self-Esteem Inventory. Findings revealed that late immigrant students experienced greater acculturative stress than the other groups. Also, late immigrants coped with stress more frequently by taking a direct, planned action (individualistic) approach, while second- and third-generation groups more often coped by talking to others about the problem (social network). Early immigrants employed both coping strategies.

Acculturation is an adaptive process of cultural adjustment that takes the individual through several different phases changing his/her conditions of life. The acculturative process begins as a result of contact and interaction between two or more autonomous cultural groups. Conflict often arises for immigrants in their efforts

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to resolve or minimize their cultural differences. This conflict is termed acculturative stress (Born, 1970). To reduce this stress immigrants adopt various long-term and/or short-term coping strategies. This study will attempt to identify situational-specific coping mechanisms utilized by immigrant students to confront these "conflicts." It is worthwhile to mention that the above is a simplistic view of the acculturative process. This process is in fact a multivariable interaction between the individuals' internal resources, the support resources available to them, and the actual types of stressors they experience (Cervantes & Castro, 1985).

As for internal resources, a recent study has shown that self-esteem is predictive of stress perceptions among Japanese and Japanese American students (Padilla, Wagatsuma, & Lindholm, 1985). Self-esteem is a personality dimension associated with a person's capacity to respond to a stressful environment. Chan (1977) states that "an individual becomes vulnerable to negative maladaptive stress reactions by virtue of seeing himself being of low self-esteem, and of high anxiety proneness, powerless and helpless, and externally oriented and unable to cope" (p. 97). Padilla and his colleagues in a second study found that individuals who experienced the greatest acculturative stress, such as students who immigrated after about age 14 years, also scored lowest on the Coopersmith Self-Esteem Scale (Padilla, Alvarez, & Lindholm, 1986).

Furthermore, another personality variable that may be important for immigrants in mediating acculturative stress is locus of control. An individual with an external locus of control, perceives that he/she is not in control of a situation. Thus, external control is relatively more stressful than if individuals perceive themselves to be in control of a situation (Lazarus & Opton, 1966; Cervantes & Castro, 1985).

Lastly, perceived racial self-discrimination is a dimension which has not previously been investigated as a possible source of potential stress. The hypothesis is that individuals, especially immigrants, may believe that because of their ethnic background, they are being discriminated against and/or taken advantage of, without having any evidence of this in actuality. This perception can well be a predictor of stress resulting from the acculturative adjustment as a whole.

The method of coping utilized by immigrants is of special interest, considering that it has been shown that immigrants experience more stress than non-immigrants (Dyal & Dyal, 1981). Coping is defined as a cognitive response that reduces or removes

the negative effects of stress. Thus, coping mechanisms are responses to stress which Pearlin and Schooler (1978) have suggested can take three forms: psychological resources, social resources, and specific coping responses.

Psychological resources are personality characteristics which people employ to help them deal with threats imposed by the environment. Individuals showing an internal locus of control, a strong commitment to themselves, and an outlook that views life changes as challenges rather than threats would appear to have a "hardy" personality, thus, more effective resources. On the other hand, *social resources* refers to support from family and friends which mediates stress by helping the person to become fully aware of the stress event, encouraging him or her to take control of the situation (thereby developing coping techniques) and lastly, communication with family and friends which helps reduce anxiety.

The purpose here is to examine specific coping responses of university students to selected acculturative stressors. The students differed in generational status in the United States which allows for a generation-by-generation analysis of changes in acculturative stress and coping strategies. The stress items themselves were developed in an earlier investigation and were shown to differentiate between students who differed by generation. However, in the earlier studies coping strategies to these acculturative stressors were not assessed. In this study, we examine both stress and coping simultaneously.

METHODS

Subjects

Subjects were 214 undergraduate university students, 96 males and 118 females, who participated in the study to partially fulfill a requirement for their introductory psychology class. Most of the students (83%) were freshmen or sophomores with a mean age of 19.1 years. Generational status was determined by asking about respondents' and their parents' place of birth. Subjects were then grouped into the following categories: first generation (immigrant status), second generation (both parents foreign born, but respondent born in U.S.), third or later generation (both parents and respondent born in U.S.) and mixed generation (respondent and one parent born in U.S. and one parent foreign born). This grouping resulted in 86 first-generation, 37 second-generation, 75 third-

Table 1
List of Coping Strategies

-
- A. I try to actively find out more about the situation and I take some positive, planned action.
 - B. I talk with others about the problem (friends, relatives).
 - C. I don't worry about it. Everything will probably work out fine.
 - D. I become involved in other activities in order to keep my mind off the problem.
 - E. I pray and/or consult a priest or a minister.
 - F. I seek professional advice (physician, psychologist, counselor).
 - G. I draw upon my past experiences; perhaps similar situations might help.
 - H. I seek support from members of my cultural group.
 - I. I try to reduce tension (e.g., drink, eat, drugs, smoke, more exercise).
-

generation, and 16 mixed-generation respondents. The ethnic/racial backgrounds of the first-generation immigrant group included 61 Asians, 9 Hispanics, 7 Europeans, 4 Middle Easterns, 3 Canadians, 1 South African and 1 Indian. The immigrant students were categorized as either early or late immigrants depending upon their age at the time of their immigration to the U.S.

Materials

To assess levels of acculturative stress a modified short version of the original 60-item SAFE scale (Padilla et al., 1985) was used. This 17-item version of the SAFE scale measures acculturative stress in Social, Attitudinal, Familial and Environmental contexts. The 17 items were found in an earlier study (Padilla et al., 1985) to discriminate between generations for both Japanese and Mexican American students. Also, seven new statements were added which pertained to perceived discrimination or majority group stereotypes toward immigrant populations. Subjects were required to rate each item that applied to them on a 1 to 5 Likert-type scale ranging from *Not stressful* (rated as 1) to *Extremely stressful* (rated as 5). If an item was not applicable to subjects, it was assigned a score of 0. The possible scores for the SAFE ranged from 0 to 120.

In addition to the stress appraisal, subjects were asked to select from a set of nine alternatives the most frequently used coping strategies for each acculturative stress item. The nine coping strategies supplied were a somewhat modified version of the coping strategies proposed by Sidle, Moos, Adams and Cady (1969). The coping strategies are shown in Table 1.

Strategies A, B, C, D, G and I were slightly reworded from those that appear on the Sidle et al. list. Items E "*I pray and/or consult a priest or a minister*" and H "*I seek support from members of my cultural group*" were added to assess the importance of cultural supports, while strategy F "*I seek professional advice (physician, psychologist, counselor)*" was added to tap the utilization of professional mental health resources.

Self-esteem was assessed using the brief version of the Coopersmith Self-Esteem Inventory (1967). The scale contained 25 statements that can be answered either "unlike me" or "like me". The items evaluate attitudes toward the self in various dimensions: family, personal, social, and academic. The possible range of the scale was 0 to 25. Locus of control was assessed by Rotter's (1966) Internal/External Locus of Control Scale. This scale contained 23 forced choice question pairs and six filler questions.

Finally, to measure both the students' and their parents' levels of loyalty toward American culture two new scales were developed. The Subjects' Loyalty Scale (SLS) contained 13 items, nine of which dealt with the subjects' ethnic preference (e.g., What is the ethnic background of the majority of your good friends?), and four items assessed the subjects' language preference (e.g., In what language do you speak to your closest friend?) If the subjects' response to a particular item showed a clear preference for American culture, then one point was given for that item. Conversely, if the response to an item was in favor of cultures other than American the item score was 0. Based on this criteria the possible range of the scale was 0 to 13. Appendix A contains the 13 items from the SLS.

The Parents' Loyalty Scale (PLS) was constructed in a fashion similar to the SLS. The scale consisted of eight items, seven of which assessed the parents' language preference (e.g., What language does your mother use to speak to your father?) and one item asked about the ethnic background of the parents' friends. The possible range for this scale was 0 to 8. Appendix B contains the 8 items from the PLS.

Procedure

Subjects were asked to complete the self-report questionnaire anonymously either individually or in small groups. All questionnaires were administered in English. Approximately 30 minutes were required to complete the instrument.

RESULTS

First, a reliability check on the SAFE stress scale with this multicultural group of students was conducted resulting in a Cronbach Alpha coefficient of .89. Thus, the stress scale is highly reliable for use with our student sample. Next, we sought to determine whether age of arrival in the United States was a critical variable differentiating acculturative stress among our immigrant respondents ($N=86$). As shown in Table 2 results revealed that subjects who immigrated before age 12 years ($N=47$) (early immigrants) had significantly ($F=1.15$; $df=1,84$; $p<.05$) lower acculturative stress scores as measured by the SAFE ($\bar{X}=35.5$) than those subjects who immigrated after age 12 ($N=39$) (later immigrants) ($\bar{X}=43.5$). No other differences were found between early and late immigrant subjects. It is important to note that no sex differences were observed among the entire group of respondents on levels of stress, self-esteem, and locus of control. Accordingly, all data analyses were conducted by generational grouping rather than by sex.

Levels of acculturative stress as measured by the SAFE differ significantly among the four generational groups ($F=17.67$; $df=3,210$; $p<.001$). As seen in the table, first-generation respondents reported the highest SAFE scores ($\bar{X}=39.1$), followed by the mixed-generation group ($\bar{X}=29.9$), then second- ($\bar{X}=23.9$) and third-generation subjects ($\bar{X}=23.0$). Regarding self-esteem, an analysis of variance revealed significant differences between groups ($F=8.37$; $df=3,210$; $p<.001$). First-generation subjects scored significantly lower in self-esteem ($\bar{X}=14.9$) than second- ($\bar{X}=18.0$), and third-generation ($\bar{X}=18.4$) respondents. No significant differences were found in the locus of control measure between the four generational groups.

Next, the subjects' scores were dichotomized into high and low score categories by using the median as the cut off point for each scale. As shown in Table 3, 70% of the total first-generation group fell into the high acculturative stress category contrasted to only 27% of the second, 31% of the mixed, and 37% of the third-generation respondents. Within the first-generation group, 82% of the late immigrants and 60% of the early immigrants fell in the high SAFE score category. As for self-esteem, 67% of the first-generation group fell in the category of low self-esteem while 62% of the second, and 65% of the third-generation respondents fell in the high self-esteem category. Once again, the group distribution into external and internal locus of control did not differ

Table 2
**Respondents' Mean Scores on the Measures of Stress,
 Self-Esteem and Locus of Control by Generation**

	Stress \bar{X}	Self- esteem \bar{X}	Locus of Control \bar{X}
All Subjects (<i>N</i> = 214)	30.2	16.9	17.4
<i>Generation</i>			
First (<i>N</i> = 86)	39.1 ^b	14.9 ^b	17.2
Early Immigrants (<i>N</i> = 47)	35.5 ^a	15.2	17.4
Late Immigrants (<i>N</i> = 39)	43.5 ^a	14.6	17.0
Second (<i>N</i> = 37)	23.9 ^b	18.0 ^b	18.0
Third (<i>N</i> = 75)	23.0 ^b	18.4 ^b	17.5
Mixed (<i>N</i> = 16)	29.9	17.1	16.5

^aEarly immigrants had significantly ($p < .05$) lower stress scores than late immigrants.

^bFirst generation Ss had significantly ($p < .001$) higher stress scores and lower self-esteem scores than second and third generation Ss.

among generations except surprisingly for the second generation. Sixty-two percent of this group scored higher on externality than either the first or third-generation groups of whom 49% of each group scored at about the median on the external dimension of locus of control.

One variable not analyzed in previous studies was ethnic loyalty as it relates to both acculturative stress and self-esteem. In order to explore this relationship, a loyalty score was first computed for each of the subjects (SLS) and for their parents (PLS). A check for internal consistency on each scale resulted in a Cronbach Alpha coefficient of .75 for the SLS and .94 for the PLS.

Contrasting subjects who scored above (high) and below (low) the median on SLS, results showed that 61% of the respondents with low SLS scores fell into the high stress category. Similarly, 57% of the subjects with low SLS scores also scored low on self-

Table 3
Percentage of Respondents Scoring Above and Below Median by Generation

	Stress		Self-esteem		Locus of Control	
	Low %	High %	Low %	High %	Internal %	External %
All Subjects (<i>N</i> = 214)	51.9	48.1	50.0	50.0	49.1	50.9
<i>Generation</i>						
First (<i>N</i> = 86)	30.2	69.8	67.4	32.6	51.2	48.8
Early Immigrants (<i>N</i> = 47)	40.4	59.6	66.0	34.0	48.9	51.1
Late Immigrants (<i>N</i> = 39)	17.9	82.1	69.2	30.8	53.8	46.2
Second (<i>N</i> = 37)	73.0	27.0	37.8	62.2	37.8	62.2
Third (<i>N</i> = 75)	62.7	37.3	34.7	65.3	50.7	49.3
Mixed (<i>N</i> = 16)	68.8	31.2	56.3	43.7	56.3	43.7

esteem. On the other hand, subjects with scores above the SLS median scored low on the SAFE (62%) and high on self-esteem (58%). Nearly identical results were obtained when parents' loyalty scores (PLS) were examined in relationship to subjects' levels of stress and self-esteem. The similarity in scores may be explained by the strong and significant correlation found between the subjects (SLS) and parents (PLS) loyalty scales ($r = .57$; $p < .001$).

Correlations were also computed for SLS, PSL, SAFE and self-esteem. Negative relationships were found between SAFE and SLS ($r = -.35$, $p < .001$) and SAFE and PLS ($r = -.35$, $p < .001$). Both SLS ($r = .25$, $p < .001$) and PLS ($r = .26$, $p < .001$) correlated positively and significantly with self-esteem.

Our next step was to analyze and compare the degree of perceived stressfulness for each of the 24 items of the SAFE scale among early, ($N = 47$) and late ($N = 39$) immigrants, and a combined second/third generation group ($N = 112$). Mixed generation

subjects were excluded from this analysis. Table 4 presents the 24 items ranked in order from the most to the least stressful item according to the ranking of the late immigrant group. As can be seen, the two most stressful items for this group of subjects were, "*I feel uncomfortable when others make jokes about or put down people of my ethnic background*" ($\bar{X}=3.1$), and "*I have more barriers to overcome than most people*" ($\bar{X}=3.1$), while the second/third generation group reported lower mean scores on both items ($\bar{X}=2.3$) and ($\bar{X}=2.4$), respectively. Other items with high stress ratings among late immigrants involved perceived discrimination, such as "*In looking for a good job, I sometimes feel that my ethnicity is a limitation*" ($\bar{X}=2.7$), and "*Because I am different I do not get enough credit for the work I do*" ($\bar{X}=2.3$). One way analyses of variance showed that nine out of twenty-four stress items (1,2,5,7,8,9,17,20,22) were significantly different among the three generational groups. Most of these items (1,2,5,7,9,17,20) received significantly higher stress ratings from late immigrants than from the second/third generation group. Late immigrants also scored significantly higher than early immigrants on items 1,5,8, and 17. Finally, early immigrants scored significantly higher than second/third generation respondents on items 7 and 22.

A Spearman Rho correlation was computed for the rank ordering of stress items between late and early immigrants and between each of the two immigrant groups and the second/third generation subjects. The resulting coefficient of .29 between early and late immigrants suggests that these two groups have a low degree of agreement for the ranking of the individual of SAFE scale items. The rho value for late versus second/third generation subjects of .26 showed an even lower degree of correspondence. Finally, the ranking of early immigrants versus second/third generation respondents was somewhat more closely aligned ($\rho = .41$).

The most frequently used coping strategies for each stress item rated as 3 or greater on stressfulness are reported in Table 4. Less utilized strategies are not included in this table. The results indicated that overall, late immigrants adopted a more active coping strategy ("*I try to actively find out more about the situations and I take some positive, planned action.*") than did early immigrants or later generation respondents. Conversely, second- and third-generation subjects coped more often by using their social network ("*I talk with others about the problem.*").

In evaluating the coping responses utilized by the subjects, it becomes apparent that not every coping strategy was used with the same frequency. For instance, the most frequently used cop-

Table 4
Mean Stress Rating for the Different Groups of Subjects Based on a Scale of 1 (Not Stressful) to 5 (Extremely Stressful) and the Most Frequent Coping Response(s) to Each Item Rated as 3 or Greater on the Degree of Stressfulness Scale

Stress Items Ranked by Stressfulness for Late Immigrants	Late Immigrants		Early Immigrants		Second & Third Generations	
	Stress Ratings (N=)	Coping Type (%) (N=)	Stress Ratings (N=)	Coping Type (%) (N=)	Stress Ratings (N=)	Coping Type (%) (N=)
1. I feel uncomfortable when others make jokes about or put down people of my ethnic background.	3.1 ^o (N=34)	A,B(23) (N=23)	2.4 ^p (N=44)	A(27) (N=18)	2.3 (N=75)	B(28) (N=32)
2. I have more barriers to overcome than most people.	3.1 ^o (N=32)	A(40) (N=22)	2.9 (N=43)	A(34) (N=26)	2.4 (N=73)	B(30) (N=33)
3. It bothers me that family members I am close to do not understand my new values.	3.0 (N=27)	B(63) (N=19)	2.9 (N=33)	B(36) (N=19)	2.7 (N=60)	B(56) (N=30)
4. Close family members and I have conflicting expectations about my future.	3.0 (N=33)	A(47) (N=19)	3.2 (N=41)	A(42) (N=26)	2.9 (N=74)	B(42) (N=42)
5. It is hard to express to my friends how I really feel.	2.9 ^o (N=31)	B(42) (N=21)	2.0 ^o (N=35)	B(45) (N=11)	2.1 (N=92)	B(28) (N=32)
6. My family does not want me to move away but I would like to.	2.8 (N=22)	A,B(35) (N=14)	2.7 (N=31)	A(37) (N=16)	2.7 (N=63)	B(48) (N=35)

7. It bothers me to think that so many people use drugs.	2.8 ^a (N=29)	C(38) (N=18)	2.8 ^b (N=44)	B(39) (N=28)	2.2 (N=98)	B(59) (N=37)
8. It bothers me that I cannot be with my family.	2.8 (N=26)	D(35) (N=14)	2.0 ^c (N=32)	B(27) (N=11)	2.2 (N=73)	C(33) (N=27)
9. In looking for a good job, I sometimes feel that my ethnicity is a limitation.	2.7 ^e (N=27)	A(40) (N=15)	2.3 (N=26)	D(40) (N=10)	1.7 (N=32)	C(42) (N=7)
10. I don't have any close friends.	2.6 (N=19)	A(27) (N=11)	2.2 (N=13)	I(66) (N=3)	1.7 (N=29)	D(37) (N=8)
11. Many people have stereotypes about my culture or ethnic group and treat me as if they are true.	2.5 (N=31)	A,B(25) (N=16)	2.4 (N=39)	A(37) (N=16)	2.4 (N=58)	A(31) (N=29)
12. I don't feel at home.	2.5 (N=30)	B(42) (N=14)	2.3 (N=23)	B(50) (N=8)	2.0 (N=38)	B(45) (N=11)

^aEarly immigrants had a significantly ($p < .05$) lower stress score than late immigrants.
^bEarly immigrants had a significantly ($p < .01$) lower stress score than late immigrants.
^cEarly immigrants had a significantly ($p < .001$) lower stress score than late immigrants.
^dLater immigrants Ss had a significantly ($p < .05$) higher stress score than second and third generations Ss.
^eLater immigrants Ss had a significantly ($p < .01$) higher stress score than second and third generations Ss.
^fLater immigrants Ss had a significantly ($p < .001$) higher stress score than second and third generations Ss.
^gEarly immigrants Ss had a significantly ($p < .01$) higher stress score than second and third generations Ss.

Table 4 (continued)

Stress Items Ranked by Stressfulness for Late Immigrants	Late Immigrants		Early Immigrants		Second & Third Generations	
	Stress Ratings	Coping Type (%)	Stress Ratings	Coping Type (%)	Stress Ratings	Coping Type (%)
13. People think I am unsociable when in fact I have trouble communicating in English.	2.5 (N=25)	B(46) (N=13)	2.4 (N=10)	A,B,C(33) (N=3)	1.0 (N=7)	— (N=0)
14. I often feel that people actively try to stop me from advancing.	2.4 (N=22)	A(44) (N=9)	2.0 (N=16)	D(50) (N=4)	1.8 (N=42)	G(36) (N=11)
15. It bothers me when people pressure me to assimilate.	2.3 (N=32)	B(50) (N=16)	1.9 (N=32)	C(33) (N=9)	2.2 (N=62)	B(44) (N=27)
16. I often feel ignored by people who are supposed to assist me.	2.3 (N=24)	B(40) (N=10)	2.3 (N=30)	B(30) (N=10)	2.1 (N=56)	B(44) (N=18)
17. Because I am different I do not get enough credit for the work I do.	2.3 ^a (N=20)	A(40) (N=10)	1.7 ^c (N=20)	B(50) (N=4)	1.2 (N=26)	C(100) (N=1)
18. It bothers me that I have an accent.	2.2 (N=34)	A(35) (N=14)	2.0 (N=23)	A(42) (N=7)	1.4 (N=11)	B(100) (N=1)

19. Loosening the ties with my country is difficult.	2.2 (N=33)	C(33) (N=12)	2.0 (N=35)	B(30) (N=13)	1.5 (N=17)	C(66) (N=3)
20. I often think about my cultural background.	2.2 ^d (N=36)	C(30) (N=10)	1.8 (N=41)	B(41) (N=12)	1.5 (N=69)	B,C(27) (N=11)
21. Because of my ethnic background, I feel that others often exclude me from participating in their activities.	2.0 (N=28)	A(33) (N=12)	2.1 (N=26)	A,C(33) (N=6)	1.5 (N=29)	B(50) (N=4)
22. It is difficult for me to "show off" my family.	1.9 (N=24)	H(33) (N=6)	2.4 ^e (N=32)	C(35) (N=17)	1.6 (N=52)	B,C(25) (N=8)
23. People look down upon me if I practice customs of my culture.	1.8 (N=23)	B,H(40) (N=5)	1.8 (N=29)	C(62) (N=8)	1.7 (N=38)	B,H(37) (N=8)
24. I have trouble understanding others when they speak.	1.8 (N=28)	A(77) (N=9)	1.4 (N=22)	C(100) (N=1)	1.6 (N=44)	A(40) (N=5)

^aEarly immigrants had a significantly ($p < .05$) lower stress score than late immigrants.

^bEarly immigrants had a significantly ($p < .01$) lower stress score than late immigrants.

^cEarly immigrants had a significantly ($p < .001$) lower stress score than late immigrants.

^dLater immigrants Ss had a significantly ($p < .05$) higher stress score than second and third generations Ss.

^eLater immigrants Ss had a significantly ($p < .01$) higher stress score than second and third generations Ss.

^fLater immigrants Ss had a significantly ($p < .001$) higher stress score than second and third generations Ss.

^gEarly immigrants Ss had a significantly ($p < .01$) higher stress score than second and third generations Ss.

ing strategies were A and B (See Table 1). Late immigrants coped by using strategy A 50% of the time, while the early immigrant group and second/third generation group used it 33% and 8% of the time, respectively. On the other hand, late and early immigrants used coping strategy B 42% of the time while the second/third generation group used strategy B 63% of the time. Among the strategies which were never used as the preferred mode of coping were "I try to reduce tension (e.g., drink, eat, drugs, smoke more, exercise)" (Strategy I); "I pray and/or consult a priest or a minister" (Strategy E); "I seek professional advice" (Strategy F); and, "I draw upon my past experiences; perhaps similar situations might help" (Strategy G). Similarly, "I don't worry about it. Everything will probably work fine," (Strategy C) and "I become involved in other activities in order to keep my mind off the problem" (Strategy D) were rarely used by any of the respondents. Interestingly, when these lower frequency coping modes were utilized it was primarily to deal with lower stress situations (See Table 4). Conversely, for high stress situations, the subjects employed coping strategy A or B.

DISCUSSION

The stress immigrants experience in their efforts to adapt to a new culture has begun to be a topic of interest to some investigators in recent years. This topic becomes even more important in Southern California, a port of entry for large numbers of immigrants. In this study we examined level of acculturative stress, self-esteem, and locus of control across different generations of university students. In addition, coping strategies employed by immigrants to reduce acculturative stress are compared to later generational groups.

In earlier studies Padilla et al. (1985, 1986) developed an instrument to measure acculturative stress among immigrants. Padilla et al. (1986) showed that subjects who immigrated at the age of 14 years or older had higher stress scores than subjects who immigrated before age 14 years. In this study by comparing age of immigration more systematically, we found that 12 years was the critical age for determining high levels of stress among immigrants. It is probable that 12 years of age more accurately identifies an important transitional period going from childhood to adolescence in an individual's normal psychosocial development.

It is during adolescence that social behaviors such as the increased importance of peer group acceptance and the increased autonomy from parents take place. If normal psychosocial development during adolescence is interrupted by immigration and the subsequent process of adaptation to a new culture, the young person may experience stress that is different in type and severity from that experienced by non-immigrant youngsters.

The SAFE scale items which were rated as most stressful were those that pertained to perceived discrimination and feeling like an outsider. These findings suggest that for immigrants, the most stressful phase of acculturation is the reevaluation of their proper role within the host society and their feelings of not belonging. Interestingly, the more tenaciously respondents hold on to their ethnic identity, the greater the stress they report and the lower their self-esteem.

In general, the two coping strategies most frequently utilized to counter the effects of acculturative stress among all respondents were either to take an active, planned action to reduce the stress or just to talk with others about the problem. It is interesting that although the first-generation subjects used both of these coping methods, they elected more often to take direct action to handle the stressful situation. One possible interpretation of this more individualistic coping pattern among immigrant college students is that they may have a smaller social network with whom to talk about problems of adapting to a new culture and consequently have little recourse but to take direct action in response to a stressor. Furthermore, the immigrants' lower self-esteem does not seem to significantly discourage them from taking action in dealing with stressful events. If anything, this active strategy of coping with stress may eventually increase the immigrant's self-esteem. A longitudinal study would help delineate changes in self-esteem across time more adequately.

As for second/third generation respondents, they coped with acculturative stress more often by simply talking to others about their worries. This finding is understandable since these U.S. born later generation subjects are likely to have an extensive social network from whom they can seek support.

Finally, an interesting finding which has also been reported in previous studies (Padilla et al., 1985, 1986) is the absence of locus of control as a predictor of acculturative stress for all generational groups. Clearly, one's perception of control of a stressful situation is far outweighed by the importance of self-esteem as a mediating variable between the individual and the environment.

RESUMEN

El estrés de aculturación y estrategias específicas de adaptación fueron evaluadas en un grupo de 214 estudiantes universitarios de ambos sexos de una universidad multicultural. Los sujetos se dividieron en cuatro grupos generacionales: (a) inmigrantes tempranos (inmigraron antes de los 12 años de edad); (b) inmigrantes tardíos (inmigraron después de los 12 años de edad); (c) segunda generación y (d) tercera generación. También se exploró la relación de estrés de aculturación con autoestima, locus de control y lealtad a la cultura americana. El cuestionario autoadministrado contenía una versión corta de la Escala de Estrés de Aculturación de Padilla (SAFE), una escala de lealtad hacia la cultura americana, la Escala de Locus de Control Interno/Externo de Rotter y el Inventario de Autoestima de Coopersmith. Los resultados indican que los inmigrantes tardíos tenían niveles más altos de estrés de aculturación que los otros grupos. Además, los inmigrantes tardíos enfrentaban el estrés más frecuentemente tomando una acción directa o una acción programada de enfoque individualista. Los grupos de segunda y tercera generación enfrentaban el estrés con mayor frecuencia conversando con otros sobre su problema (red de apoyo social). Los inmigrantes tempranos empleaban ambas respuestas de adaptación.

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Appendix A
Subjects' Loyalty Scale

1. What is the ethnic background of your closest friend?
Anglo_____ Other (Specify)_____(0)
2. What is the ethnic background of the majority of your good friends?
Anglo_____(1) Other (Specify)_____(0)
3. Do you prefer to socialize with?
Anglo_____(1) Other (Specify)_____(0)
4. What ethnic group members do you prefer to date?
Anglo_____(1) Other (Specify)_____(0)
5. How would you identify yourself?
American_____(1) Other (Specify)_____(0)
6. If someone were to insult the U.S., would you feel offended?
Yes_____(1) No_____(0)
7. If someone were to insult Americans, would you feel offended?
Yes_____(1) No_____(0)
8. Do you prefer to be with those who share your cultural heritage?
Yes_____(1) No_____(0)
9. Do you prefer to eventually marry a person of your own ethnic origin?
Yes_____(1) No_____(0)
10. In what language(s) do you speak to your closest friend?
English_____(1) Other (Specify)_____(0)
11. In what language(s) does she/he speak to you?
English_____(1) Other (Specify)_____(0)
12. In what language(s) do you speak to the majority of your friends?
English_____(1) Other (Specify)_____(0)
13. What language(s) is/are often spoken where you live?
English_____(1) Other (Specify)_____(0)

Appendix B
Parents' Loyalty Scale

1. What is the ethnic background of most of your parents' friends?
Anglo_____ (1) Other (Specify)_____ (0)
2. What language does your mother use to speak to your father?
English_____ (1) Other (Specify)_____ (0)
3. What language does your mother use to speak to her children?
English_____ (1) Other (Specify)_____ (0)
4. What language does your mother use to speak to her friends?
English_____ (1) Other (Specify)_____ (0)
5. What language does your father use to speak to your mother?
English_____ (1) Other (Specify)_____ (0)
6. What language does your father use to speak to his children?
English_____ (1) Other (Specify)_____ (0)
7. What language does your father use to speak to his friends?
English_____ (1) Other (Specify)_____ (0)
8. Do your parents watch television programs in a non-English language?
No_____ (1) Yes_____ (0)