

Perceived Stress, Psychopathology, and Family Support in Korean Immigrants and Nonimmigrants

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The purpose of this study was to determine the effects of immigration on perceived stress, psychopathology, and family support in Korean immigrants. A total of 105 immigrants and 32 nonimmigrants responded to the questionnaire. The Global assessment of recent stress(GARS) scale as well as anxiety, depression and somatization scales of the symptom checklist-90-revised (SCL-90-R), and the perceived social support scale were used to measure perceived stress, psychopathology and extent of family support. Immigrants scored significantly higher on the somatization scale than nonimmigrants. However, no significant differences were found in scores on the anxiety and depression scales of SCL-90-R, total GARS scores and scores for family support between the two groups. Immigrants with lower incomes had significantly higher scores on the anxiety, depression and somatization scales as well as total GARS scores than those with higher incomes, whereas the former were significantly lower in family support than the latter. Immigrants with nonprofessional occupations had significantly higher scores on the anxiety and somatization scales and lower scores for family support than those with professional occupations. The extent of satisfaction for family(spouses and children), job, and friendship had significantly negative correlations with scores on all three scales of SCL-90-R in immigrants. These results suggest that Korean immigrants had more somatization than nonimmigrants, and that the immigrants' psychopathology, including somatization, could be greatly influenced by income, type of occupation, satisfaction for job, family and friendship.

Key Words: Korean immigrants, nonimmigrants, perceived stress, psychopathology, family support, somatization

The movement of individuals from a native cultural context to a different geographic area which distances them from their usual support systems has generally been seen as very stressful (Griffith, 1988). Thus, migration which requires psychological acculturation has for many years been regarded as a cause of psychopathology (Canino and Canino, 1980).

People undergoing this kind of culture shock ex-

perience a variety of emotions - isolation, anxiety and depression, often accompanied by a sense of loss comparable to mourning (Sadock, 1995).

Koreans are one of the fastest-growing immigrant groups in the U.S., with approximately 30,000 being admitted annually (Hurh and Kim, 1988).

A number of studies have revealed various stressful immigrant experiences which seem to have contributed significantly to mental health-related problems such as family violence, alcoholism, juvenile delinquency, alienation of the elderly, marital and inter-generational conflicts, and other mental disorders in Korean immigrants (Kuo, 1984; Kiefer, 1985; Koh *et al.* 1986; Yu, 1986; Taylor, 1988; Yim, 1988). Recently, elderly Korean immigrants

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were reported to suffer from major depression and somatization disorder. In particular, those who met the criteria for depression were more likely to experience culture-specific Korean somatic symptoms than those who did not meet the criteria (Pang and Lee, 1994).

According to Kuo's study on the prevalence of depression among Asian Americans in Seattle, Korean Americans exhibited the highest depression scores compared with Chinese, Japanese and Filipino Americans (Kuo, 1984). He listed several factors that might be related to Korean immigrants' relatively high rates of depression: shorter length of residence in the U.S.; higher rates of under-employment (a better education but lower-prestige jobs); limited ability in English; and a higher concentration in small business located in high-risk minority districts (Kim and Hurh, 1985).

It has been reported that Korean men suffered a more difficult role adjustment when compared with Japanese and Chinese migrants in Hawaii. Korean culture had instilled in these men such an exceptionally superior status that their loss was more profound. As a result, depression was more common and the suicide rate was higher among these men compared with Korean women (Harvey and Chung, 1980).

The recently-migrated family may try to adjust to the new environment, reshaping its new reality and maximizing both the family's continuity in terms of identity and its compatibility with the environment (Sluzki, 1987). Many family rules and values that were effective in the country of origin may prove to be less adaptive in the culture and circumstances of the adopted country (Sluzki, 1987). Such changes in family may weaken immigrants' family ties.

Thus, in this study, a comparison was made regarding perceived stress, psychopathology, and family support between Korean immigrants and nonimmigrants to find out the effects of immigration on each of these variables.

MATERIALS AND METHODS

Subjects

Data for this study were gathered from an epide-

miologic survey of 137 Korean residents (105 immigrants and 32 nonimmigrants; 20 years and older) residing in the Chicago area. The Chicago area includes the inner city of Chicago and some 70 suburban communities. According to the 1980 census, the number of Korean residents in Cook County, which includes Chicago, was 17,323; however, the Korean population in the Greater Chicago area in 1985 was estimated at about 70,000 (Hurh and Kim, 1988).

For sampling, a two-step procedure was used. First, a list of 11,726 Korean households was compiled as the target population based on the Korean Community Directory of Chicago, 1988~1989 and 8 telephone directories of the city of Chicago and contiguous suburban communities. Second, a sample of 1,000 households was randomly selected from the master list as prospective respondents and letters were sent out to them requesting their cooperation. Among the materials enclosed in the letter was a return card in which the prospective respondent was asked to respond to the questionnaire. The questionnaire included sociodemographics, the GARS scale, anxiety, depression and somatization scales of the SCL-90-R, and the perceived social support scale. Due to the poor return rate, letters enclosing the questionnaire were sent out again to the non-respondents. The total number of respondents was 149, among which 12 were excluded because of insufficient data.

Measurements

Subjects were tested using the Korean version (Koh, 1988) of the global assessment of recent stress (GARS) scale, which was developed to assess current stress perception by Linn (1985). In the Korean version, the extent of stress perception was explained in Korean underneath each score on the scale to enable the subjects to fully understand it (Koh, 1988). The Korean version (Kim *et al.* 1984) of anxiety, depression and somatization scales in the SCL-90-R (symptom checklist-90 revised; Derogatis *et al.* 1976) and the perceived social support scale (Procidano, 1983) were used to measure psychopathology and the extent of family support, respectively. Six variables such as family satisfaction (for spouses and children), job satisfaction, friendship

satisfaction, satisfaction in church activity, satisfaction in other group activities, and overall life satisfaction were rated on a 5-point scale ranging from 1, 'very dissatisfied' to 5, 'very satisfied'. In addition, a social assets scale (Luborsky *et al.* 1973) was included in the questionnaire to find out sociodemographic factors.

Statistical analysis

The differences in sociodemographic variables between immigrants and nonimmigrants were tested by either χ^2 -test or Student's t-test. A comparison of

total GARS scores, scores of SCL-90-R, and scores for family support between the above two groups was made by Student's t-test. Extent of satisfaction for family (spouses and children), job, friendship, church activity, other group activities, and overall life was compared between the two groups using Mann-Whitney u test. The relationship of demographic factors with scores for each scale of SCL-90-R, total GARS scores and scores for family support was tested by Student's t-test or analysis of variance (ANOVA). The relationship of the extent of satisfaction in each area with scores for each scale of SCL-90-R and total scores on the GARS

Table 1. Demographic data

	Immigrants (N=105) N(%)	Nonimmigrants (N=32) N(%)	χ^2	df	p
Gender					
male	64 (66.7)	19 (67.9)	0.000001		1.0
female	41 (33.3)	13 (32.1)			
Age					
mean \pm s.d.	43.6 \pm 8.6	42.3 \pm 9.0	t=0.74	df=135	p=0.46
(range)	(28~65)	(27~65)			
20~39	42 (40.0)	14 (43.8)			
40~49	40 (38.1)	11 (34.4)			
over 50	23 (21.9)	7 (21.9)			
Education*					
graduate (2 years or more)	17 (16.2)	20 (62.5)	28.	2	0.00001
college	73 (69.5)	12 (37.5)			
high school	15 (14.3)	0			
Marital status					
married	99 (94.3)	31 (96.9)	0.94	2	0.63
divorced, separated, widowed	3 (2.9)	1 (3.1)			
single	3 (2.9)	0			
Occupation					
professional [§]	41 (39.0)	19 (59.4)	7.02	3	0.07
private business	28 (26.7)	7 (21.9)			
employed workers	23 (21.9)	2 (6.3)			
none	13 (12.4)	4 (12.5)			
Income (1,000 dollars) [†]					
more than 70	20 (19.0)	13 (40.6)	7.97	3	0.046
50 to 70	35 (33.3)	5 (15.6)			
30 to less than 50	27 (25.7)	8 (18.8)			
15 to less than 30	23 (21.9)	8 (25.0)			
Duration of residence (years)					
less than 5	16 (15.2)	6 (18.8)	0.39	2	0.82
5 to 10	27 (25.7)	9 (28.1)			
more than 10	62 (59.0)	17 (53.1)			

Immigrants had significantly lower education* and lower income[†] than nonimmigrants.

[§]: indicates people working in special areas such as professors, doctors, researchers, engineers, etc., but does not include skilled workers and clerical staff.

scale was tested by Pearson correlation.

RESULTS

Sociodemographic data (Table 1)

Immigrants had a significantly lower education and lower income than nonimmigrants. However, no significant differences were found between the two groups in sex, age, marital status, occupation and duration of residence. In regard to recent stressors for both immigrants and nonimmigrants, economic difficulty (N=21, 15.3%) was the most common, followed by language problem (N=14, 10.2%), education of children (N=13, 9.5%), conflict within family (N=10, 7.3%), (extrafamilial) interpersonal difficulty (N=10, 7.3%), job dissatisfaction (N=9, 6.6%), health problem (N=7, 5.1%), lack of leisure (N=6, 4.4%), and others (N=24, 17.5%).

Comparison of perceived stress, psychopathology and family support between immigrants and nonimmigrants (Table 2)

Immigrants had significantly higher scores on the somatization scale of SCL-90-R than nonimmigrants. However, there were no significant differences in the anxiety and depression scales between the two groups. As to perceived stress indicated by total GARS scores and family support, no significant differences were found between immigrants and nonimmigrants.

Comparison of life satisfaction between immigrants and nonimmigrants

Regarding the extent of satisfaction for spouses ($u=1082.0$ $p=0.008$), children ($u=787.5$ $p=0.0001$), and job ($u=1146.5$ $p=0.01$), immigrants were significantly lower than nonimmigrants, respectively. However, no significant differences were found between immigrants and nonimmigrants in regard to satisfaction for friendship ($u=1396.0$ $p=0.19$), church activity ($u=1505.0$ $p=0.36$), other group activities ($u=476.0$ $p=0.30$), and overall life ($u=1382.0$ $p=0.10$).

The relationship of sociodemographic factors with psychopathology and perceived stress in immigrants and nonimmigrants (Table 3)

Immigrants with lower incomes had significantly higher scores for anxiety, depression and somatization scales and higher total GARS scores than those with higher incomes. Immigrants with nonprofessional occupations such as private business or employed workers were significantly higher in scores on the anxiety and somatization scales than those with professional occupations. However, any other demographic factors such as sex, age, education, and duration of residence did not show any significant differences in psychopathology or perceived stress.

On the other hand, among nonimmigrants, females had significantly higher scores on the depression scale and total GARS scores than males. Nonimmigrants with nonprofessional occupations had significantly higher scores on the anxiety and depression scales than those with professional occupations. Nonimmigrants with lower incomes were significant-

Table 2. Psychopathology, perceived stress and family support in immigrants and nonimmigrants

	Immigrants (N=105) mean \pm s.d.	Nonimmigrants (N=32) mean \pm s.d.	df	p
SCL-90-R [†]				
anxiety	4.6 \pm 5.4	3.7 \pm 4.0	0.86	135
depression	8.5 \pm 7.7	6.2 \pm 6.6	1.58	135
somatization*	6.1 \pm 7.0	3.3 \pm 4.7	2.08	135
Total GARS [§]	20.4 \pm 14.1	20.1 \pm 16.4	0.12	135
Family support	13.5 \pm 4.9	13.3 \pm 5.2	0.27	135

Symptom checklist-90-revised, [†]: Global assessment of recent stress

tly higher in scores on the somatization scale than those with higher incomes. Nonimmigrants with a shorter duration of residence had significantly higher scores for depression than those with a longer duration of residence.

The extent of satisfaction for family (spouses and

children), job, and friendship had significantly negative correlations with scores on the anxiety, depression and somatization scales of SCL-90-R in immigrants, respectively (Table 4). However, the extent of satisfaction in church activity and other group activities did not significantly correlate with scores

Table 3. The relationship of sociodemographic factors with psychopathology, perceived stress and family support in immigrants and nonimmigrants

	Immigrants (N=105)/ Nonimmigrants (N=32)									
	Anxiety		Depression		Somatization		GARS		Family support	
Age	0.49 (2)	0.61/	0.81 (2)	0.45/	0.29 (2)	0.75/	0.79 (2)	0.45/	0.24 (2)	0.79/
Education	1.65 (2)	0.21	1.37 (2)	0.27	0.54 (2)	0.59	0.92 (2)	0.41	5.25 (2)	0.01
Income	0.75 (2)	0.48/	0.61 (2)	0.55/	2.48 (2)	0.09	0.43 (2)	0.65/	1.25 (2)	0.29/
Occupation	2.72 (1)	0.11	1.68 (1)	0.20	0.09 (1)	0.77	2.27 (1)	0.14	0.04 (1)	0.84
Duration of residence	-4.10 (3)	0.009*	-4.98 (3)	0.003*	-4.59 (3)	0.005*	-5.81 (3)	0.001*	3.09 (3)	0.03*
Gender(mean ± s.d.)	-0.89 (3)	0.46	-0.56 (3)	0.64	-3.53 (3)	0.03	-0.41 (3)	0.75	13.55 (3)	0.00001
male	-2.75 (3)	0.047†	-1.48 (3)	0.22/	-3.52 (3)	0.02†	-1.73 (3)	0.17/	6.67 (3)	0.0004†
female	-3.33 (3)	0.03	-10.03 (3)	0.0001	-2.39 (3)	0.09	-1.31 (3)	0.29	0.62 (3)	0.61
t(df) p	-1.15 (2)	0.32/	-1.49 (2)	0.23/	-1.18 (2)	0.31/	-1.60 (2)	0.21/	1.35 (2)	0.26/
	-2.05 (2)	0.15	-4.45 (2)	0.02	-2.43 (2)	0.11	-0.73 (2)	0.49	3.65 (2)	0.04
	4.0 ± 5.1/		8.0 ± 8.4/		5.1 ± 6.3/		19.2 ± 14.2/		13.9 ± 5.0/	
	3.3 ± 4.1		4.8 ± 5.8		3.3 ± 5.0		16.7 ± 10.2		12.8 ± 5.4	
	5.4 ± 5.9/		9.2 ± 6.5/		8.0 ± 8.3/		20.2 ± 11.8/		13.5 ± 4.2/	
	5.6 ± 4.1		10.8 ± 7.4		4.7 ± 4.6		34.1 ± 20.7		13.8 ± 3.7	
	-1.23 (94)	0.22/	-0.70 (94)	0.49/	-1.88 (94)	0.06/	-0.36 (94)	0.72/	0.33 (94)	0.74/
	-1.34 (26)	0.19	-2.33 (26)	0.03	-0.71 (26)	0.49	-3.01 (26)	0.006	-0.47 (26)	0.64

*: Immigrants with lower income had significantly higher scores of anxiety, depression and somatization scales, total GARS scores than those with higher income, whereas the former group had significantly lower scores of family support than the latter.

†: Immigrants with private business or employed workers had significantly higher scores of anxiety and somatization scales and lower scores of family support than those with professional occupations.

t: t-test, F: F-test, df: degree of freedom

Table 4. The correlation between the extent of life satisfaction and scores of 3 dimensions in SCL-90-R in immigrants

Area of satisfaction	r		
	Anxiety	Depression	Somatization
Spouses	-0.38*	-0.35*	-0.24†
Children	-0.40*	-0.37*	-0.28*
Job	-0.34*	-0.44*	-0.29*
Friendship	-0.29*	-0.40*	-0.24†
Church activity	-0.03	-0.14	0.06
Other group activities	0.13	0.11	0.17
Overall life	-0.24†	-0.35*	-0.16

*: 0.001, †: 0.01, r: Pearson correlation coefficient

for any psychopathology.

The relationship of sociodemographic factors with family support in immigrants and nonimmigrants (Table 3)

Immigrants with lower incomes had significantly lower scores for family support than those with higher incomes. However, sex, age, education and duration of residence showed no significant differences in scores for family support.

Younger nonimmigrants were significantly lower in scores for family support than older ones. Nonimmigrants with lower incomes or with a shorter duration of residence were significantly lower in scores for family support than those with higher incomes or a longer duration of residence, respectively.

DISCUSSION

Next to Los Angeles and New York, the largest concentration of Koreans in the United States has been congregating in the Chicago area. The demographic characteristics of Korean immigrants in the Chicago area were found to be quite similar to those of Korean immigrants in other metropolitan areas (Kim, 1981; Yu *et al.* 1982; Hurh and Kim, 1984).

In this study, immigrants had more somatization than nonimmigrants, but there were no significant differences in anxiety and depression between the two groups. Among older Soviet immigrants, somatization was also reported to be predominant (Goldstein, 1979; Wheat *et al.* 1983). Somatization has been documented to be increased in non-Western populations (Schwab and Traven, 1979). In traditional oriental thought, somatic illness is known to be an effective way to obtain rest and to seek treatment (Tseng and McDermott, 1981). In fact, in order to deal with accumulated stress, tension, and conflict, family members will frequently activate the socially acceptable pattern of somatic complaints (Sluzki, 1987).

As immigrants were significantly lower in education and income than nonimmigrants, however, it should be also considered likely that there would be

more predominance of somatization in immigrants compared with nonimmigrants.

First, education was not associated with any psychopathology among immigrants. In another study (Hurh and Kim, 1988), however, Korean immigrants who were less educated had more depression than those who were more educated. Among older Soviet immigrants, education has also been found to be strongly associated with somatization; the lower the educational attainment, the higher the somatization scores (Kohn *et al.* 1989).

Economic difficulty was listed as the most common stressor in both immigrants and nonimmigrants. In contrast to education, income was found to be a factor affecting anxiety, depression, somatization, perceived stress, and family support among immigrants. In other words, a lower income significantly made a negative impact on the broad spectrum of psychopathology and family support. This may be evidence supporting the hypothesis that the primary reasons for their migration are to improve the quality of life for themselves and for their family members.

On the other hand, nonprofessional immigrants had more anxiety and somatization than professional ones. In the other study (Hurh and Kim, 1988), occupational difference was significantly associated with depression among males; the higher the occupational prestige, the less the degree of depression. For females, occupational difference was related to somatic impairment; the higher the occupational prestige, the fewer the somatic complaints.

Among immigrants, gender difference did not influence any psychopathology, whereas among nonimmigrants, females were significantly more depressed and had higher scores for perceived stress than males. This finding suggests that female nonimmigrants were less likely to be adaptive to the changed life and environment when compared with female immigrants. In the other study (Hurh and Kim, 1988), gender difference in Korean immigrants' mental health was also reported to be generally negligible.

Among immigrants, length of residence did not show any difference in psychopathology, whereas among nonimmigrants, the shorter the length of residence was, the lower was their family support. In the other study (Hurh and Kim, 1989), it was

reported that as the length of residence extended, the immigrants' acculturation progressed and economic conditions improved. Thus, the degree of immigrants' sense of well-being increased.

Immigrants were significantly lower in the extent of satisfaction for their family (spouses and children) and job than nonimmigrants. The extent of satisfaction in family, friendship and job also had significantly negative correlations with scores on the anxiety, depression and somatization scales of SCL-90-R in immigrants. Thus, these factors may also be considered as important stressors creating an adverse effect on psychopathology, including somatization. However, scores for family support did not show any significant difference between immigrants and nonimmigrants. These results suggest that immigration itself did not weaken family ties in Korean immigrants, although they might have some dissatisfaction with their family.

On the other hand, church activity did not have any effect on psychopathology, in contrast to the expectation that church activity might play an essential role in supporting Korean immigrants emotionally and that it could considerably reduce their psychopathology.

The limitation of this study was the small number of nonimmigrants compared with immigrants. So, any future study of this kind should include more nonimmigrants.

In conclusion, these results suggest that Korean immigrants had more somatization than nonimmigrants, and that the immigrants' psychopathology, including somatization, could be greatly influenced by income and type of occupation as well as satisfaction for job, family and friendship. It was also suggested that immigration itself did not weaken family ties. On the other hand, for nonimmigrants, a shorter duration of residence and female liability as well as low income were the likely factors influencing their mental health.

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