

# Perceived Discrimination and Depression: Moderating Effects of Coping, Acculturation, and Ethnic Support

Samuel Noh, PhD, and Violet Kaspar, PhD

The authors evaluated the effects of cultural norms and social contexts on coping processes involved in dealing with perceived racial discrimination.

Cross-sectional data derived from personal interviews with Korean immigrants residing in Toronto were analyzed. Among the respondents, active, problem-focused coping styles were more effective in reducing the impacts on depression of perceived discrimination, while frequent use of passive, emotion-focused coping had debilitating mental health effects.

The present findings lend greater support to a social contextual explanation than to a cultural maintenance explanation of coping processes. They also suggest that, when empowered with sufficient social resources, racial minority individuals of diverse cultural heritages are more likely to confront than to accept racial bias. (*Am J Public Health*. 2003;93:232–238)

## IN THE STUDY DESCRIBED

here, we sought to examine how racial/ethnic discrimination may be related to depression by focusing on the ways in which individuals respond to perceived discrimination and how personal coping responses, as well as acculturation and ethnic social support, moderate the impact of perceived racial stigma on depressive symptoms. Stress and coping research provides ample evidence demonstrating that psychological manifestations of social stress are significantly mediated by personal coping behaviors.<sup>1–9</sup> Health consequences of discrimination also vary according to personal coping responses.<sup>10–15</sup> While coping efforts consist of a wide range of cognitive and behavioral activities, they typically involve problem-focused and emotion-focused coping behaviors; however, coping efficacy is determined by many factors, including the nature of the stressor, personal resources, culture, and social contexts.<sup>5–7,16</sup>

In a sample of Southeast Asian refugees residing in Canada, Noh and his colleagues<sup>17</sup> found that forbearance or emotion-focused coping diminished the strength of the link between discrimination and depression. Such a stress-moderating effect was not found for problem-focused coping or confrontation. Furthermore, the stress-buffering effect of forbearance was more pronounced when this stance was adopted by individuals with strong attachments to traditional

ethnic values and strong group identification. These findings among Southeast Asians contradict the asserted efficacy of active, problem-focused coping in dealing with psychological consequences of perceived racism among Black Americans.<sup>13,18</sup>

Among Black women residing in the United States, Krieger found that passive responses to racism were associated with high blood pressure, while the use of more direct approaches, such as talking to others or taking action, was related to lower blood pressure levels.<sup>13</sup> In addition, it has been shown that, in comparison with White women, Black women more often cope with sex discrimination in a passive manner, suggesting low perceptions of controllability.<sup>18</sup> The analysis of the Detroit Area Study<sup>18</sup> suggested that, among both Blacks and Whites, passive coping appeared to be the most detrimental form of coping. Active, problem-focused coping showed the largest gains, although levels of well-being were still significantly lower among those who adopted active coping than among those who did not experience discrimination.

According to Noh et al., these contrasts point to the importance of cultural influences on coping.<sup>17</sup> Specifically, they emphasized that the observed efficacy of emotion-focused or forbearance coping in their Asian sample was consistent with the cultural maintenance hypothesis, according to which preferred styles of coping reflect cultural norms and values.

Members of collectivistic cultures, including Asians<sup>19–21</sup> and Latin Americans,<sup>22,23</sup> exhibit a preference for resolving interpersonal conflicts in a way that reflects concern over consequences for others. The avoidant pattern of conflict resolution found among Asian Canadians was consistent with their traditional cultural norm of evading conflicts and preserving interpersonal relationships.<sup>24,25</sup>

However, it is possible that the reported effectiveness of the emotion-focused coping response of forbearance, at least among Southeast Asians, may reflect the life situations of the refugees, characterized by a lack of such social and psychological coping resources, including language proficiency, financial security, and confidence in one's rights and ability to resolve interracial conflicts. Psychological benefits of problem-focused coping may be observed as the refugees gain competence in the Canadian way of life (e.g., official language, cultural and behavioral norms, legal rights). Dissimilarities in results of studies involving Black Americans and Asian refugees may be attributable to contextual differences between the 2 populations, including history and political influence.

## THE PRESENT STUDY

In this study, we sought to describe the experiences of Korean immigrants residing in Toronto, Ontario, Canada. As was the case with the Southeast Asian sample

that was the focus of our earlier study, Koreans have a collectivist cultural orientation. However, social resources, in terms of education, employment, income, and length of time residing in Canada, were considerably greater in the present sample of Korean immigrants than in the previous sample of Southeast Asian refugees. A cultural maintenance hypothesis would predict a pattern of findings consistent with those from the sample of Southeast Asian refugees. However, if situational contexts influence coping processes, Korean immigrants may display substantially diverse patterns of associations concerning the role of coping. Specifically, more resourceful Korean immigrants may display protective benefits of problem-focused coping.

In addition, to validate contextual effects on coping, we examined variations in coping effects across levels of acculturation and ethnic social support. Acculturation, as conceived in this study, departs from usual definitions of this concept. We adopted a scale of acculturative stress to capture the degree to which present life situations are stressful as a result of acculturation tasks or settlement demands (e.g., language, missing friends and relatives, financial and occupational experiences, changing roles for oneself and one's family members, and new social norms). The better acculturated would feel little or no stress from the demands, while the less acculturated might find these life situations stressful. We hypothesize that the better acculturated are likely to benefit more from the stress-moderating effect of confrontational or problem-focused coping.<sup>26,27</sup>

We also examined the role of ethnic social support, on the

basis of evidence confirming the mental health salience of social support received from members of one's own ethnic community<sup>28-30</sup> as opposed to individuals outside of ethnic community networks.<sup>30-32</sup> We hypothesized that ethnic social support would moderate the effect of emotion-focused coping, that the use of emotion-focused coping might buffer emotional distress if the immigrants were well connected and supported by the members of their ethnic communities, and that frequent use of passive, emotional coping might exacerbate the emotional toll of racial discrimination when ethnic community support was not available or fragmented.

It is important to recognize that we assumed similarities in collective cultural orientations among Koreans and Southeast Asians residing in Canada. Findings from the current study that are consistent with those of the earlier study of Southeast Asian refugees can be viewed as additional support of the cultural maintenance hypothesis.<sup>17</sup> Specifically, the earlier work on Southeast Asian refugees demonstrated significant effects of emotion-focused (or forbearance) coping in buffering the adverse psychological consequences of perceived discrimination, and this was conceived as being consistent with the cultural maintenance hypothesis. In addition, as shown in the study of Southeast Asians, the cultural hypothesis would predict a lack of stress-buffering effects of problem-focused (or confrontational) coping.

The contextual hypothesis was based on the observed differences between the 2 populations in such structural contexts as length of residence in Canada,

education, and income, on which the current sample of Korean immigrants were at a clear advantage relative to the Southeast Asian refugee respondents of the earlier study.<sup>17</sup> We assume that the advantages in terms of social contexts of Korean immigrants are likely to empower them to be able and willing to take a stand against insulting incidents and unfair treatment and articulate their feelings and rights. If the results are to be consistent with the contextual hypothesis, the effectiveness of forbearance or emotion-focused coping that was found in the Southeast Asian refugee sample should not be replicated in the Korean immigrant sample.

Additional support of the contextual hypothesis would be found in results showing adverse (or distress-causing) effects of emotion-focused coping, as well as significant buffering roles of problem-focused coping or confrontation, in the Korean sample. Further evidence for the contextual hypothesis would be produced by results showing that Korean immigrants who are better acculturated into Canadian structures and culture, as compared with those who are less acculturated, are more likely to benefit from the stress-moderating effects of confrontational or problem-focused coping.

## METHODS

### Sample and Data

Data for this study were drawn from the Growing Up Canadian project, a follow-up of a subsample of families that participated in the Korean Mental Health Study (KMHS).<sup>31-33</sup> The KMHS was a 2-wave panel study of life strains and mental health problems among Korean

immigrant adults residing in Toronto. Initially, 1039 households were selected, via simple random sampling, from the directory of the Korean Society of Toronto, which listed more than 4000 households in the Toronto metropolitan area in 1990. Within each selected family, only one adult (18 years or older) was randomly selected. Those who migrated before the age of 16 years were excluded because their migratory adjustment experiences were likely to be substantially different from those of older adult immigrants. Participants in the KMHS were interviewed in the summers of 1990 and 1991. The baseline KMHS sample consisted of adults from 860 households (a participation rate of 86%).

The sample for the present study was drawn from the KMHS families. We selected, according to baseline responses, the 480 families from the KMHS that were believed to have children aged 10 to 20 years. We located 345 of these families, of which 234 had eligible children living at home. Three hundred eleven children from 199 families completed 2-hour interviews in their home. In each family, one parent who was interviewed for the KMHS was left with a questionnaire to be completed and mailed in. The primary purpose of the parent questionnaire was to obtain parental assessments of children's psychosocial adjustment.

One hundred eighty parents completed their assessments. A portion of the questionnaire addressed aspects of parents' own experiences, including perceived discrimination, emotional reactions to perceived discrimination, and coping strategies used to deal with perceived discrimina-

tion. As well, parents were assessed in terms of depressive symptoms and other psychosocial factors and life contexts. We used data from parents' interviews regarding their own experiences, not the experiences of their children.

**Measures**

*Perceived discrimination and emotional/coping responses.* Respondents were told that “when people insult other people, make fun of them, or treat them unfairly because they belong to a certain racial/ethnic group, this is called discrimination. This may happen to people who are not born in Canada, or speak another language, or look different. The next few questions are about this type of discrimination.” They were then asked how often they had been discriminated against in terms of having been (1) hit or handled roughly, (2) insulted or called names, (3) treated rudely, (4) treated unfairly, (5) threatened, (6) refused services in a store or restaurant or subjected to delays in services, and (7) excluded or ignored. In addition, they were asked whether anyone in their family had ever been discriminated against in any way. In the case of each item, personal experiences were coded on a scale ranging from 1 (never) to 5 (all of the time). Mean scores on the 8 items were used to measure levels of perceived discrimination. The 8-item scale had an internal consistency (Cronbach  $\alpha$ ) coefficient of 0.855.

We also included a measure of emotional reactions to perceived discrimination. We asked all respondents who had experienced at least one incident of discrimination how often such incidents made them feel *angry, scared,*

*sad, unwanted, like they wanted revenge, rejected, frustrated, intimidated or frightened, humiliated, puzzled, discouraged, helpless, weak, stupid, foolish, or ashamed.* Each item was coded on a 3-point scale (0=rarely or never, 1=sometimes, 2=most of the time) that had an internal consistency reliability ( $\alpha$ ) coefficient of 0.899. The mean item score was 0.681 (potential mean range: 0 to 2), with a standard deviation of 0.406.

After they had responded to the questions regarding discrimination and emotional reactions, individuals were queried in regard to their reactions to discrimination. Responses to each item were coded on a 3-point scale reflecting frequency of use of different coping strategies (0=rarely or never, 1=sometimes, and 2=most of the time), and scale scores were derived as item means. Three types of problem-focused coping responses were assessed. The first was personal confrontation (e.g., *I protested verbally or I talked or reasoned with the offender*; mean score=0.885, SD=0.579). The second problem-focused coping response, taking formal action, included 2 items (mean=0.180, SD=0.309): *I reported to authorities* and *I went to the media*. Finally, social support seeking consisted of 2 items as well (mean=1.061, SD=0.574): *I talked to family and relatives* and *I talked to friends*. Cronbach  $\alpha$  values for these 3 scales were 0.734, 0.440, and 0.746, respectively.

Types of emotion-focused coping included passive acceptance (*did not react, took it as a fact of life, ignored, pretended not to be offended*;  $\alpha$ =0.703) and emotional distraction (*screamed or cried, took it to someone else, watched TV or played games to forget*;  $\alpha$ =0.485).

Scale means were 0.672 (SD=0.428) for passive acceptance and 0.141 (SD=0.250) for emotional distraction.

The measures of emotional reaction and coping were applicable only to individuals who had experienced at least one incident of discrimination. As described in our earlier analysis of the Southeast Asian sample,<sup>17</sup> emotional reaction and coping measures are “conditionally relevant” variables. In the simplest form, these variables were used in regression analyses as interactions between the dummy variable of ever having experienced discrimination (coded as 0 if no discrimination was reported) and deviation scores for each measure.

*Acculturation and ethnic social support.* Two aspects of life contexts were chosen for investigation: acculturation and ethnic social support. In these analyses, we used the Acculturative Stress Index (ASI), a scale originally developed for the KMHS as a measure of chronic life strain applicable typically to immigrant populations.<sup>33</sup> Scores reflect the extent to which respondents experience their current life situations as stressful owing to the emotional demands of acculturation or settlement processes in the new society. The ASI taps 5 major areas: social isolation, socioeconomic adjustment, sense of marginality, changes in family relations, and concerns with children and intergenerational transitions within the family. In the present study, the total scale internal consistency ( $\alpha$ ) coefficient was 0.951.

On the basis of the earlier KMHS finding that social support available within ethnic (Korean) networks exerted both direct and stress-suppressing effects on mental well-being,<sup>30</sup> we used an 8-

item index of ethnic social support. Respondents were asked to report how often they experienced each of the states depicted in 8 statements, 4 describing negative aspects of relations with friends or relatives (*getting on nerves, making too many demands, creating tensions or arguments, and taking advantage*) and 4 addressing positive and supportive aspects of such relationships (*listening, expressing interest, comforting, and caring*). Negative item scores ranged from -3 (often) to 0 (never), and positive item scores ranged from 0 (never) to 3 (often). Sums of the 8 item scores were used in the analysis. The scale had acceptable reliability ( $\alpha$ =0.779).

*Depression.* The Korean version of the Center for Epidemiologic Studies Depression Scale (CES-D-K) was used to measure depressive symptoms. The CES-D-K has been standardized for use among Korean immigrants.<sup>34,35</sup> In this study, the scale's internal consistency reliability coefficient was 0.927.

*Demographic characteristics.* A number of demographic variables were included in the analyses. On the basis of our previous experience with the KMHS sample, we grouped individuals into 2 levels of education according to whether they had attained a university degree. About half of the sample had received at least one postsecondary degree. Because the current sample was composed of parents, little variance was observed in marital status. Employment status was measured via an item gathering information on “major activities during the last 12 months.” Responses were recorded as *employed* (full or part time), *looking for a job* (unemployed), *homemaker*, and *other* (student, dis-

**TABLE 1—Demographic Characteristics of the Respondents and Their Relations With Depression**

	Univariate Statistic	Regression Model Beta	
		Model 1	Model 2
Sex, No. (%)			
Female	92 (51.1)	-0.001	0.021
Male <sup>a</sup>	88 (48.8)		
Education, No. (%)			
College or more	87 (48.3)	-0.053	-0.044
No college <sup>a</sup>	93 (51.7)		
Marital status, No. (%)			
Married	170 (94.4)	-0.038	-0.012
Not married <sup>a</sup>	10 (5.6)		
Employment status, No. (%)			
Employed	149 (82.8)	-0.067	-0.046
Not employed <sup>a</sup>	31 (11.2)		
Household income, \$, No. (%) <sup>b</sup>			
≥70 000	40 (22.7)	-0.310*	-0.296*
30 000–69 999	96 (54.5)		
<30 000	40 (22.7)		
Age in years, mean (SD)	49.3 (6.9)	0.153	0.173
Years in Canada, mean (SD)	19.7 (5.9)	-0.001	-0.002
Discrimination score, mean (SD)	1.761 (0.620)	0.309*	0.190*
Emotional arousal score, mean (SD)	0.681 (0.406)		0.282*
R <sup>2</sup>		0.248	0.310
Adjusted R <sup>2</sup>		0.214	0.278

<sup>a</sup>Reference group.

<sup>b</sup>Previous year's household income (before tax) was assessed in terms of 6 levels: (1) less than \$15 000, (2) \$15 000–\$29 999, (3) \$30 000–\$49 999, (4) \$50 000–\$69 999, (5) \$70 000–\$89 999, and (6) \$90 000 or more.

\* $P < 0.1$ .

abled or sick leave, or retired). Past year's household income was coded in 6 categories ranging from *less than \$15 000 to \$90 000 or more*. Both age and length of residence in Canada were measured in years.

## RESULTS

As shown in Table 1, 51% of the participants were women. Nearly 50% (58.0% of men and 39.1% of women) had at least one university degree. As a result of the nature of our sampling design, most respondents were married (94.4%) and employed (82.8%) and had been living in

Canada for a considerable number of years (20 on average). A large majority had household incomes between \$30 000 and \$69 000 (median: \$57 000). According to the 1996 census, the average household income among Korean Canadians in the Toronto area was \$36 000.

### Prevalence of Perceived Discrimination

Fewer than 16.5% of respondents reported that they had never been discriminated against because of their racial/ethnic background. No one mentioned experiencing any form of discrimination all of the time. How-

ever, a considerable proportion of the sample perceived that they had been discriminated against a few times or many times. More than 40% of the respondents reported that they had been insulted or called names, treated rudely, or treated unfairly. Approximately 20% to 25% reported experiencing discrimination a few times or many times in terms of receipt of services, and nearly 35% reported that members of their family had been discriminated against more than once. Slightly more than 7% of the sample reported incidents of hitting or rough handling, with 2.4% reporting more than one such incident. Almost one quarter (24.2%) of the respondents reported being threatened at least once, and 14% reported more than one such episode. The overall mean score for the 8-item discrimination scale was 1.76 (SD=0.620), indicating that, on average, each item mean was close to the "few times" range.

### Perceived Discrimination and Depression

The results shown in Table 1 were derived from 2 separate ordinary least squares regression models. In the first model, family income was significantly related to depression. Controlling for the effects of demographic variables (sex, marital status, education, income, employment status, age, and years of residence in Canada), we found a modest and significant association between perceived discrimination and depressive symptoms ( $b=0.309$ ,  $P<.001$ ). In the second model, both frequency of perceived discrimination and emotional reactions exhibited significant direct associations with depression (as measured with the CES-D-K;

$b=0.282$ ). The addition of emotional reactions in the regression model reduced the direct link between perceived discrimination and depression by almost 40% (from 0.309 to 0.190), although the direct association between discrimination and depression remained statistically significant.

### Effects of Coping

Table 2 shows the results for 5 coping scores (models 1–5). Each model included is an extension of model 2, shown in Table 1. In general, as revealed in the top panel of Table 2, depression was independent of coping. One exception to this general rule was social support seeking (i.e., talking to family/relatives and friends), which was associated with reduced levels of depression ( $b=-0.170$ ,  $P<.05$ ).

In the bottom panel of Table 2, several moderating effects of coping can be seen. First, problem-focused coping strategies (i.e., personal confrontation, taking formal actions, and seeking social support) reduced the distressing influences of perceived discrimination, although the distress-moderating effect was statistically significant only in the case of coping via personal confrontation ( $b=-0.524$ ,  $P<.05$ ). Second, and conversely, frequent use of emotion-focused coping intensified the adverse mental health impact of perceived discrimination; interaction terms for passive acceptance and emotional distraction were substantial and statistically significant at a .10 level. There was no significant interaction between emotional reactions and coping variables.

### Moderating Effects of Situational Factors

Table 3 shows results of separate models for 5 types of cop-

**TABLE 2—Associations of Depression With Perceived Discrimination, Emotional Reactions, and Coping: Regression Models**

Predictor	Model Without Coping (Model 0)	Coping Included in Separate Models				
		Personal Confrontation (Model 1)	Taking Formal Action (Model 2)	Seeking Social Support (Model 3)	Passive Acceptance (Model 4)	Emotional Distraction (Model 5)
<b>Tests of main effects</b>						
Discrimination	0.190**	0.194**	0.126	0.189**	0.190**	0.125
Emotion	0.282***	0.289***	0.319***	0.345***	0.280***	0.331
Coping	...	-0.053	-0.004	-0.170**	0.009	-0.036
R <sup>2</sup>	0.310	0.312	0.310	0.333	0.310	0.311
<b>Tests of interactions</b>						
Perceived Discrimination × Coping		-0.524**	-0.280	-0.128	0.436*	0.440*
Emotion × Coping		0.093	0.039	-0.028	0.048	-0.040

*Note.* The values are standardized regression coefficients derived from models that included the demographic characteristics shown in Table 1 as predictors. The top panel shows direct main effects of perceived discrimination and coping. The bottom panel shows interaction effects of coping with perceived discrimination and emotional reactions to discrimination.  
\**P* < .10; \*\**P* < .05; \*\*\**P* < .01.

**TABLE 3—Associations of Depression With Perceived Discrimination, Emotional Reactions, Coping, and Acculturation: Regression Models**

Predictor	Coping Behavior (Model)				
	Personal Confrontation (1)	Taking Formal Action (2)	Seeking Social Support (3)	Passive Acceptance (4)	Emotional Distraction (5)
Discrimination	0.148	0.118	0.091	0.087	0.095
Emotion	0.115	0.142	0.226**	0.204**	0.208**
Coping	-0.109***	-0.057	-0.144**	-0.004	-0.016
Acculturation	-0.294***	-0.329***	-0.311***	-0.321***	-0.326***
Perceived Discrimination × Coping	0.315	-0.004	0.567	0.649*	-0.006
Emotion × Coping	0.696	0.887***	0.234	0.012	0.010
Perceived Discrimination × Coping × Acculturation	-1.183***	0.039	-0.447	0.265	0.507
Emotion × Coping × Acculturation	-0.703**	-0.870***	-0.287	0.014	-0.055

*Note.* The values shown are standardized regression coefficients that were estimated after control for the effect of family income. Other demographic factors were dropped owing to the lack of association with depression after control for family income.  
\**P* < .10; \*\**P* < .05; \*\*\**P* < .01.

ing. In each model, we extended the models shown in Table 2 by adding the main effect of acculturation and its (3-way) interactions with moderating (interactive) effects of coping. In general, signs of the 3-way interaction terms in the first 3 models for problem-focused coping (models 1–3) were negative, suggesting the distress-moderating effects of such coping, especially those of personal confrontation and taking formal

action. These results indicate that the efficacy of problem-focused coping is more pronounced when Korean Canadian immigrants have adapted successfully or experience no or less stress from acculturative adaptations. The effects of emotion-focused coping were not modified according to level of acculturation.

Following exactly the same procedure, we examined the moderating effects of ethnic so-

cial support. Results are reported in Table 4. The 3-way interactions for the first 3 models were positive but nonsignificant. Contrary to the results presented in Table 3, ethnic social support modified interactions between emotion-focused coping and both perceived discrimination and emotional reactions. These results suggest that strong ethnic support may compensate for the distress-exacerbating effect of emotion-focused coping.

## DISCUSSION

Our primary goal was to examine the effects of diverse coping behaviors in moderating the adverse effect of perceived discrimination. The results showed that, in our study sample of Korean adults, domains of problem-focused coping had stress-moderating effects, while the use of emotion-focused coping was associated with higher levels of depression. These findings are in

**TABLE 4—Associations of Depression With Perceived Discrimination, Emotional Reactions, Coping, and Ethnic Social Support: Regression Models**

Predictor	Coping Behavior (Model)				
	Personal Confrontation (1)	Taking Formal Action (2)	Seeking Social Support (3)	Passive Acceptance (4)	Emotional Distraction (5)
Discrimination	0.086	0.109	0.074	0.062	0.094
Emotion	0.329***	0.306***	0.382***	0.287***	0.330***
Coping	-0.013	-0.001	-0.127	0.709	-0.055
Ethnic Support	0.077	0.087	0.122	0.083	0.127
Discrimination × Coping	-1.043**	-0.781	0.061	1.493***	1.210***
Emotion × Coping	0.157	-0.233	0.185	0.788***	1.427*
Discrimination × Coping × Ethnic Support	0.453	0.528	-0.143	-1.128***	-0.747*
Emotion × Coping × Ethnic Support	-0.083	0.291	-0.200	-0.757**	-1.436**

Note. The values shown are standardized regression coefficients that were estimated after control for the effect of family income. Other demographic factors were dropped owing to the lack of association with depression after control for family income.

\* $P < .10$ ; \*\* $P < .05$ ; \*\*\* $P < .01$ .

extreme contrast to the patterns exhibited by the sample of Southeast Asians in Canada<sup>17</sup> but highly comparable to patterns reported among Black Americans.<sup>13,18,36</sup> Particularly with respect to collective norms, Koreans may share more cultural traits with Southeast Asians than with Black Americans. In addition, the members of both the Korean and the Southeast Asian samples were residents of Canada. Given these similarities in cultural and social backgrounds between the 2 samples of Asians, the conflicting results for these groups do not support the cultural maintenance hypothesis. It seems more feasible to attribute the differences to differing social situations.

As reported, the sample of Koreans comprised middle-aged adults with extremely high levels of education, stable marriage and employment situations, above-average family incomes, and an average of 20 years of residency in Canada. If these characteristics adequately describe a profile of solid social capital that was deficient in the Southeast Asian refu-

gee sample, they are likely to be responsible, at least in part, for the outcome disparities between the 2 studies. Support for a contextual hypothesis was enhanced by the fact that the stress-suppressing or stress-moderating effects of problem-focused coping methods were amplified among the better acculturated but diminished significantly among those who were less acculturated and distressed by acculturation demands. Our findings are consistent with the social context explanation of coping outcomes, suggesting that interventions focused on strategies for changing social circumstances would be more effective in minimizing the effects of racial stigma on the mental health of racial minority groups and, hence, on the health disparities observed between different groups.

We also found detrimental effects of emotion-focused coping on mental health status. However, the debilitating influence of emotion-focused coping was moderated by ethnic support. Psychological consequences of passive and inactive coping re-

sponses were observed among Koreans who were not well connected with and supported by their cultural communities.

For a number of reasons, the current study was exploratory, and the findings and conclusions should be viewed with caution. First, we bypassed the conceptual and operational definitions of perceived discrimination. Both racism and discrimination are complex social constructs that require systematic approaches.<sup>14,37</sup> In this study, racial discrimination was assessed in the form of subjective self-reports (without validation) regarding frequency of exposure to a limited number of situations. This method is susceptible to the potential measurement errors described and discussed by Krieger.<sup>14</sup>

Second, the analyses were based on cross-sectional data involving limited statistical power. It is possible that the reported patterns of associations, including the statistical interactions, reflect behavioral patterns under the influence of depressive symptoms instead of illustrating the effects of discrimination and coping on

depression.<sup>14,17</sup> The results and implications should be verified with longitudinal analyses. In addition, we used a single health outcome. Depression was chosen because of our interest in comparing our results with the findings from the Southeast Asian refugee sample in our previous research.<sup>17</sup>

Finally, the present study was based on limited data, and we were unable to test or eliminate alternative explanations of our findings. For example, the efficacy of problem-focused coping among the current sample of the Korean immigrants, which argues against the cultural maintenance hypothesis, may be related to the criterion of sampling only those with children aged 10 to 20 years. Specifically, it may reflect a tendency for parents to use confrontational means to deal with the discrimination their children experience in school and in the neighborhood. We have no data available to examine the viability of this alternative explanation.

Nevertheless, to our knowledge, this study is the first to present a set of statistical tests

contrasting 2 opposing hypotheses of cultural and situational explanations of coping processes in response to the perceived stress of racial/ethnic discrimination. Across diverse measures of the 2 types of coping, patterns of interactions with acculturation and ethnic support were unambiguous. These findings suggest that, when they are empowered with sufficient social resources, members of ethnic/racial minority groups are more likely to confront racial bias and discrimination, regardless of their cultural backgrounds. Moreover, interventions not involving changes in social contexts are unlikely to be successful. The results of this study and other studies of coping efficacy indicate that interventions intended to minimize the psychological impact of discrimination through personal coping efforts must be designed to promote coping responses that are consistent not only with one's cultural orientation but one's situation in regard to major social structures. ■

### About the Authors

Samuel Noh is with the Department of Sociology and the Institute for Health and Social Policy, University of Akron, Akron, Ohio. Violet Kaspar is with the Department of Psychiatry and the Centre for Addiction and Mental Health—Clarke Site, University of Toronto, Toronto, Ontario, Canada.

Requests for reprints should be sent to Samuel Noh, PhD, Institute for Health and Social Policy, University of Akron, 247 Olin Hall, Akron, OH 44325-1905 (e-mail: snoh@uakron.edu), or to Violet Kaspar, PhD, Department of Psychiatry, University of Toronto, 250 College St, Toronto, Ontario M5T 1R8, Canada (e-mail: violet\_kaspar@camh.net).

This article was accepted September 30, 2002.

### Contributors

The authors contributed equally to all aspects of the research and preparation related to this article, including concep-

tion of the research question, data analysis, interpretation of results, and the writing of the manuscript.

### Acknowledgments

This study was supported in part by operating research grants to Samuel Noh from the Social Sciences and Humanities Research Council of Canada (410-96-1526) and the Medical Research Council of Canada (MA-13752) and to Violet Kaspar from the Social Sciences and Humanities Research Council of Canada (410-98-1342) and the Canadian Institutes of Health Research (MOP-53250 and CIC-42726).

### References

1. Billings AG, Moos RH. The role of coping responses and social resources in attenuating the stress of life events. *J Behav Med.* 1981;4:139–157.
2. Carroll D. *Health Psychology: Stress, Behavior, and Disease.* Washington, DC: Taylor & Francis; 1992.
3. Dressler W. Modernization, stress and blood pressure: new directions of research. *Hum Biol.* 1990;71:583–605.
4. Folkman S. Personal control and stress and coping processes: a theoretical analysis. *J Pers Soc Psychol.* 1984; 46:839–852.
5. Lazarus RS. From psychological stress to the emotions: a history of changing outlook. *Annu Rev Psychol.* 1993;44:1–21.
6. Lazarus RS. Toward better research on stress and coping process. *Am Psychol.* 2000;55:665–673.
7. Lazarus RS, Folkman S. *Stress, Appraisal and Coping.* New York, NY: Springer; 1984.
8. Pearlín LI, Lieberman MA, Menaghan EG, Mullan JT. The stress process. *J Health Soc Behav.* 1981;22: 337–356.
9. Pearlín LI, Schooler C. The structure of coping. *J Health Soc Behav.* 1978;19:2–21.
10. Dion KL, Dion KK, Pak AWP. Personality-based hardiness as a buffer for discrimination-related stress in members of Toronto's Chinese community. *Can J Behav Sci.* 1992;24:517–536.
11. Essed P. *Diversity: Gender, Color and Culture.* Amherst, Mass: University of Massachusetts Press; 1996.
12. Gee GL. A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *Am J Public Health.* 2002; 92:615–623.
13. Krieger N. Racial and gender dis-

- crimination: risk factors for high blood pressure? *Soc Sci Med.* 1990;30: 1273–1281.
14. Krieger N. Discrimination and health. In: Berkman L, Kavooh I, eds. *Social Epidemiology.* New York, NY: Oxford University Press Inc; 2000:36–75.
15. Krieger N, Rowley DL, Herman AA, et al. Racism, sexism, and social class: implications for studies of health, disease, and well-being. *Am J Prev Med.* 1993;9(suppl 6):82–122.
16. Munroe SM, Kelley JM. Measurement of stress appraisal. In: Cohen S, Kessler RC, Gordon LU, eds. *Measuring Stress.* New York, NY: Oxford University Press Inc; 1995:122–147.
17. Noh S, Beiser M, Kaspar V, Hou F, Rummens A. Perceived racial discrimination, coping, and depression among Asian refugees in Canada. *J Health Soc Behav.* 1999;40:193–207.
18. Williams DR, Spencer MC, Jackson JS. Race, stress and physical health: the role of group identity. In: Contrada RJ, Ashmore RD, eds. *Self, Social Identity and Physical Health.* New York, NY: Oxford University Press Inc; 1997: 71–100.
19. Hwang KK. Coping with residential crowding in a Chinese urban society: the interplay of high density dwelling and interpersonal values. *Acta Psychol Taiwánica.* 1979;21:117–133.
20. Kuo W. Coping with racial discrimination: the case of Asian Americans. *Ethnic Racial Stud.* 1995;18:109–127.
21. Reynolds DK. *Morita Psychotherapy.* Berkeley, Calif: University of California Press; 1976.
22. Gabrielidis C, Stephan WG, Ybarra O, Dos Santos Pearson VM, Villareal L. Preferred styles of conflict resolution: Mexico and the United States. *J Cross Cultural Psychol.* 1997;28:661–677.
23. Garrison V. The Puerto Rican syndrome in psychiatry and espiritismo. In: Crapanzano V, Garrison V, eds. *Case Studies in Spirit Possession.* New York, NY: John Wiley & Sons Inc; 1977: 383–449.
24. Tietjen AM. The ecology of children's social support networks. In: Belle D, ed. *Children's Social Networks and Social Support.* New York, NY: John Wiley & Sons Inc; 1989:35–57.
25. Triandis HC. *Culture and Social Behavior.* New York, NY: Oxford University Press Inc; 1994.
26. Kawachi I, Kennedy BP, Gloss R. Social capital and self-rated health: a contextual analysis. *Am J Public Health.* 1999;89:1187–1193.
27. LaViest TA. The political empow-

- erment and health status of African Americans: mapping a new territory. *Am J Sociol.* 1992;97:1080–1095.
28. Halpern D. Minorities and mental health. *Soc Sci Med.* 1993;36:597–607.
29. Massey D, Denton NA. Trends in the residential segregation of blacks, Hispanics and Asians. *Annu Sociol Rev.* 1987;52:802–825.
30. Noh S, Wu Z, Avison WR. Social support and quality of life: socio-cultural similarity and the efficacy of social support. In: Albrecht G, Fitzpatrick R, eds. *Advances in Medical Sociology, Volume V: Quality of Life in Health Care.* Greenwich, Conn: JAI Press; 1994:115–138.
31. Noh S, Speechley M, Kaspar V, Wu Z. Depression in Korean immigrants in Canada: I. Method of the study and prevalence. *J Nerv Ment Dis.* 1992;180: 573–577.
32. Noh S, Wu Z, Speechley M, Kaspar V. Depression in Korean immigrants: II. Effects of gender, work, and marriage. *J Nerv Ment Dis.* 1992;180: 578–582.
33. Noh S, Avison WR. Asian immigrants and the stress process: a study of Koreans in Canada. *J Health Soc Behav.* 1996;37:192–206.
34. Noh S, Avison WR, Kaspar V. Depressive symptoms among Korean immigrants: assessment of a translation of the Center for Epidemiologic Studies Depression Scale. *Psychol Assessment.* 1992;4:84–91.
35. Noh S, Kaspar V, Chen X. Measuring depression in Asian populations: assessing validity of the translated version of the CES-D Scale. *Cross Cultural Res.* 1998;32:358–377.
36. Williams DR, Yu Y, Jackson J, Anderson N. Racial differences in physical and mental health: socioeconomic status, stress and discrimination. *J Health Psychol.* 1997;2:335–351.
37. Williams DR, Neighbor H. Racism, discrimination and hypertension: evidence and needed research. *Ethn Dis.* 2001;11:800–816.