ABSTRACT. The authors report preliminary findings supporting the utility of the self-concordance model (K. M. Sheldon & A. J. Elliot, 1999) as an alternative approach to studying depression among Vietnamese American (N = 121) and European American (N = 155) college students. The participants completed measures of personal goals, goal self-concordance, and depression. Compared with the European American participants, the Vietnamese American participants reported higher levels of depression and lower levels of goal self-concordance. According to mediational analyses, ethnicity no longer accounted for significant variance in depression after the authors statistically controlled for goal self-concordance.

Key words: depression, European American college students, goal self-concordance, mediation, Vietnamese American college students

A GROWING BODY OF EVIDENCE suggests that Vietnamese immigrants experience multiple problems in adapting to life in the United States, including downward occupational mobility, intergenerational conflict, and increased rates of clinical depression (Hinton, Chen, Du, & Tran, 1993; Hinton et al., 1998; Hinton, Tiet, Tran, & Chesney, 1997). Less acculturated Vietnamese immigrants have reported proportionally more problems related to prearrival trauma (Hinton...
et al., 1997), separation from family, learning a new language (Tran, 1993), seeking employment, and rebuilding social supports (Nicholson, 1997). Like their immigrant parents, Vietnamese American youth also have reported relatively high levels of depression and anxiety compared with their European American peers (Felsman, Leong, Johnson, & Felsman, 1990; Tran, 1993; Webb, McKelvey, & Strobel, 1997).

Despite the suggestion of a link between ethnicity and depression, there has been little attention to possible theoretical mechanisms; that is, missing from the aforementioned data is a conceptual understanding of the relationship between ethnicity and depression. In the absence of a theoretical framework, several researchers have posited that, in addition to being confronted with the developmental transition from adolescence to adulthood, Vietnamese American youth must cope with adjustment problems both as immigrants themselves and as the children of immigrant parents (McKelvey, Webb, & Mao, 1993; Nguyen, Messe, & Stollak, 1999; Nicholson, 1997) as well as with intercultural conflicts caused by the immense value differences between Eastern and Western cultures (Nguyen & Williams, 1989; Phinney, Ong, & Madden, 2000).

The self-concordance model, derived from self-determination theory (Deci, 1975; Deci & Ryan, 1985), may provide an alternative framework by which to understand the relatively high levels of depression reported by Vietnamese American young adults. The model organizes and integrates into a single conceptual and causal model a number of related research findings in the fields of motivation and well-being (Sheldon & Kasser, 1995, 1998) and an assortment of recent findings from cross-cultural research (Dinh, Sarason, & Sarason, 1994; Herz & Gullone, 1999).

In the present research, we examined how the relationship between ethnicity and depression occurs, that is, the mechanism of the effect. In applying the self-concordance model to our predictions, we posited that the relationship between ethnicity and depression may not necessarily be direct but, rather, may be mediated through goal self-concordance. According to Baron and Kenny (1986), demonstration of a mediated model requires three steps: (a) that ethnicity is related to depression, (b) that ethnicity is related to goal self-concordance, and (c) that the relationship between ethnicity and depression is significantly reduced once goal self-concordance is accounted for in the equation.

In the following sections, we have described the rationale for the proposition that goal self-concordance, derived from self-determination theory (Deci & Ryan, 1985), may mediate the relationship between ethnicity and depression. Thus, our purpose in testing the mediated model was to go beyond documenting the relationship between ethnicity and depression and, instead, to explore the pathways of mediated effects. In building the case for mediation, we focused on how previous researchers have provided information on the proposed meditational process.
Self-Determination Theory

According to Deci and Ryan’s (1985, 1991) self-determination theory, intentional behaviors differ in the degree to which they are autonomous (i.e., self-determined) or controlled (i.e., determined by causes beyond the self). Autonomous behaviors have an internal perceived locus of causality (deCharms, 1968). In contrast, controlled behaviors have a locus of causality that is external to the self. Controlled activities may become more autonomous as a function of a growth process referred to as organismic integration (Deci & Ryan, 1985, 1991). Deci and Ryan (1985) maintained that one manifestation of organismic integration is the tendency for individuals to internalize extrinsic values and then to integrate those values with other aspects of the core self.

Deci and Ryan (1991) further distinguished four distinct classes of intentional behaviors, which differ in the extent to which they reflect integration of values within the self (cf. Ryan & Connell, 1989). Two of those refer to controlled behaviors. The most controlled behaviors are those guided by external reasons; such behaviors are compelled or pressured by some influence outside the self. External pressures are eventually internalized, giving rise to introjected self-regulation. Introjected behaviors are guided by internal forces, but those forces consist of pressures such as anxiety, guilt, or a desire to please others. Introjected behaviors are less controlled than those guided by external forces, but they still are relatively controlled. The difference is that the controlling aspect, self-regulation, has moved inside the person.

Two additional classes of intentional behaviors are characterized as autonomous and come in two forms: identified and intrinsic. A person engages in identified behaviors because he or she genuinely believes they are valuable. Behaviors of this sort are relatively autonomous, or self-determined. Finally, some behaviors are guided by intrinsic reasons (e.g., personality traits); such activities are of interest in their own right. Although it is possible to distinguish the four categories conceptually from one another, the most important distinction appears to be between controlled and autonomous motivation (cf. Grolnick & Ryan, 1987; Kasser & Ryan, 1996).

Goal Self-Concordance and Well-Being

Derived from self-determination theory, the self-concordance model posits that goals are self-concordant when they are pursued for autonomous reasons (Sheldon & Elliott, 1999). Considerable research now attests to the qualitative advantage of autonomous, relative to controlled, goal pursuit. Numerous researchers have demonstrated that, when people’s actions are autonomous, they display more cognitive flexibility and depth of processing (Grolnick & Ryan, 1987), greater creativity (Amabile, 1996), and greater maintained weight loss (Williams, Grow, Friedman, Ryan, & Deci, 1996) than when their actions are
controlled. Moreover, placing strong relative importance on self-concordant aspirations has been positively associated with well-being indicators (e.g., self-esteem and self-actualization) and negatively associated with anxiety and depression (Kasser & Ryan, 1993, 1996).

**Culture and Goal Self-Concordance**

The internalization of values that encourage self-concordant goal pursuit is, to a considerable extent, influenced by the provisions of one’s sociocultural context. Cultural researchers have referred to one distinction between Western and Eastern cultures—the extent to which their members define the self in relation to others—as individualism versus collectivism (Triandis, 1995), as independence versus interdependence (Markus & Kitayama, 1991), and as egocentric versus sociocentric selves (Shweder & Miller, 1991). As such, the Western view of self has typically held the characteristics of autonomy, independence, separateness, and individualism as ideals, in contrast to an Eastern view of self more deeply embedded in collective cultures that emphasize social roles within a hierarchy and the subordination of the self to group goals.

Vietnamese culture, based in Confucian and Buddhist roots, is strongly collectivist; the family structure is typically patriarchal, with children expected to obey their parents and fulfill their obligations within the family (Matsuoka, 1990; Nguyen & Williams, 1989; Rosenthal, Ranieri, & Klimidis, 1996). When researchers considered culture and parenting style together, they found that lower levels of acceptance and higher levels of control characterized the parenting style in the Vietnamese culture as compared with that in Western cultures (Herz & Gullone, 1999). Such control was manifested by parents’ high expectations of their children for doing house chores and succeeding academically, which Vietnamese American youth reported in one study as the two highest family stressors (Tran, Lee, & Khoi, 1996).

Despite cross-cultural differences in self-construal, recent researchers have suggested similarities in the underlying processes that lead to the development and expression of self-determination. For instance, Kasser and Ryan (1993, 1996) found that, whereas self-reported attainment of intrinsic goals was positively associated with well-being, attainment of extrinsic goals was not. Moreover, Ryan et al. (1999) replicated those findings in a Russian sample, attesting to the potential generalizability of the findings. Other researchers have examined the relations between need satisfaction and well-being in specific settings and have found, for example, that employees’ reports of satisfaction of their needs for autonomy, competence, and relatedness in the work place were related to self-esteem and general health (Ilardi, Leone, Kasser, & Ryan, 1993), not only in the United States but also in Bulgaria (Deci et al., 2000). The foregoing research suggests that, although individuals may pursue goals for different reasons within cultures that hold different values, they may pursue goals autonomously only when
such values have been fully integrated into one’s self-concept. Accordingly, we have suggested—in line with the self-concordance model—that a person’s reason for pursuing a goal is as important as the goal itself; we tested that idea in the present study.

The participants indicated their reasons for pursuing a set of personal goals. We designed the reasons to reflect the degree of self-concordance, as determined by either extrinsic–introjected motives (e.g., “because people will be more attracted to me,” “because it would make my family proud”) or by intrinsic–identified motives (e.g., “because it would be fun,” “because it is important to me”). We predicted that goal self-concordance would mediate the relationship between ethnicity and depression. Thus, we hypothesized that ethnicity would no longer account for significant variance in depression when we statistically controlled for self-concordance. We, therefore, tested that prediction as a mediational hypothesis. Because the model adopted in the present study was cross-sectional, we did not rule out bidirectional relationships, particularly between self-concordance and depression. Our focus, however, was self-concordance as an intervening variable between ethnicity and depression.

Method

Participants

The participants were 276 college students (121 Vietnamese Americans and 155 European Americans; 124 women and 152 men) between the ages of 18 and 25 years ($M = 24$, $SD = 1.6$); they were enrolled in introductory psychology courses at the University of Southern California. There were no age differences between the two groups. The students took part in a semester-long study in exchange for class credit. We treated all participants in accordance with the ethical guidelines of the American Psychological Association (American Psychological Association, 1992).

A survey item on family structure indicated that 35% of the participants were living with two biological parents, 24% were in single-parent constellations (mostly single mothers, sometimes with relatives), 7% were in blended families (with one biological parent and one stepparent), and 34% were living independently (with no guardians). Data on parental education for the fathers indicated that 79% had completed high school, 15% had some college education or were college graduates, and 3% had postcollege education; data were similar for the mothers. Preliminary analyses revealed that the family structures of the Vietnamese American and the European American students did not differ significantly. However, the level of parental education was significantly lower among the Vietnamese American than among the European American participants, $\chi^2(4, N = 276) = 12.53, p < .05, \phi = .21$. 

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Measures

Personal goals. To assess personal goals, we used the personal striving construct (Emmons, 1986). Specifically, following Emmons’s procedures and instructions, we instructed the participants to brainstorm a set of personal goals (e.g., “to try to improve academically,” “to learn to relax and manage stress more effectively,” and “to try to quit smoking”) that they would usually or characteristically try to reach during the upcoming semester. Next, the participants selected the five most important goals from their set of candidate goals and then completed a variety of ratings on each personal goal.

Goal self-concordance. To assess the degree of self-concordance of the participants’ goals, we asked them to rate their reasons for pursuing each goal in terms of items representing each of the four reasons outlined in self-determination theory: external (“You pursue this goal because somebody else wants you to or because the situation demands it”), introjected (“You pursue this goal because you would feel ashamed, guilty, or anxious if you did not”), identified (“You pursue this goal because you really believe it’s an important goal to have”), and intrinsic (“You pursue this goal because of the fun and enjoyment that it provides you”). Those four reasons sample a continuum of perceived locus of behavioral causality (Ryan & Connell, 1989), ranging from noninternalized to completely internalized. The participants rated each item on a 9-point Likert-type scale (1 = not at all for this reason, 9 = completely for this reason). We created a self-concordance score for each personal goal by summing the identified and intrinsic scores and subtracting the introjected and external scores (cf. Grolnick & Ryan, 1987; Grolnick, Ryan, & Deci, 1991; Sheldon & Kasser, 1995). We created an aggregate self-concordance score for each participant by summing across the five personal goals (α = .68).

Depression

We assessed individual levels of depression by using the Center for Epidemiological Studies Depression Scale (CES-D). The CES-D is a 20-item measure of current depressive symptoms, with an emphasis on the affective component—depressed mood (Radloff, 1977). Scale items represent the major components of depression: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance.

Responses are based on a 4-point Likert-type scale (0 = rarely or none of the time, 3 = most or all of the time). The scale has been shown to be internally consistent, with coefficient alphas of .85 in the general population and .90 in the patient sample (Radloff, 1977). Test–retest reliabilities ranged from .51 to .67 with retest intervals of 2 to 8 weeks (Radloff).
The CES-D is strongly correlated with both the Raskin Rating Scale ($r = .75$; Raskin, Schultebrandt, Reatig, & McKeon, 1969) and the Hamilton Clinician’s Rating Scale ($r = .69$; Hamilton, 1967) after 4 weeks of inpatient treatment. Summing the scores on all 20 items produces a range of 0 to 60, with higher scores indicating greater depression. Cutoff scores of 16 have been used to screen for depression in community samples (Radloff, 1977). The CES-D had satisfactory internal consistency in the present study (Cronbach’s $\alpha = .72$).

**Procedure**

We obtained data through a self-report questionnaire administered to students in a laboratory by project staff. The questionnaire took approximately 40 min to complete. The staff followed a standardized protocol in giving instructions to students. The survey was administered under anonymous conditions. The respondents received class credit for their participation. The completion rate (number of surveys completed/total number of participants) was 96%.

**Results**

**CES-D and Self-Concordance Characteristics of Study Sample**

The average CES-D score in the study sample was 10 ($SD = 6.5$). Overall, 34% ($n = 93$) scored above the cutoff for depressed mood (16 or higher). Preliminary analyses revealed that depressed mood was more prevalent among the Vietnamese American students (36%) than among the European American students (9%), $\chi^2(1, N = 121) = 30.97, p < .001, \phi = .51$. Depression was not associated with gender or parental education.

For each participant, we formed a self-concordance variable by summing the identified and intrinsic scores and subtracting the introjected and external scores. The mean self-concordance score for the entire sample was 6.91 ($SD = 2.04, \alpha = .76$). On average, the European American students reported significantly higher goal self-concordance ($M = 8.52, SD = 3.29$) than did the Vietnamese American students ($M = 4.84, SD = 3.21$), $F(1, 274) = 209.82, p < .001, \eta^2 = .43$. Analysis of each of the four reasons of goal pursuit (i.e., external, introjected, identified, and intrinsic) revealed that the Vietnamese American participants, on average, endorsed significantly higher introjected reasons for goal pursuit ($M = 7.63, SD = 2.03$) than did the European American participants ($M = 1.86, SD = 1.84$), $F(1, 274) = 186.12, p < .001, \eta^2 = .39$. We observed no significant differences on any of the three other reasons for goal pursuit.

**Mediational Analysis**

We used linear regression models to examine the independent effects of ethnicity and goal self-concordance on depression. Baron and Kenny (1986) dis-
cussed four steps in establishing mediation: (a) The predictor variable is correlated with the outcome; (b) the predictor variable is correlated with the mediator; (c) the mediator affects the outcome variable; and (d) when researchers control for the mediator variable, the previous relationship between the predictor and outcome variable is greatly reduced or nonsignificant. The effects in both Steps 3 and 4 are estimated in the same regression equation (Baron & Kenny).

Using the criteria described above, we found that goal self-concordance mediated the relationship between ethnicity and depression. The complete path is shown in Figure 1. When we controlled for parental education, the complete model was characterized both by a direct effect and by an indirect effect through self-concordance of ethnicity on depression. Specifically, separate linear regression analyses showed that, after controls for parental education, ethnicity predicted both depression, $F(1, 274) = 189.36, R^2 = .13$, and goal self-concordance, $F(1, 274) = 168.12, R^2 = .09$. Moreover, when we regressed depression simultaneously on both ethnicity and goal self-concordance, the significant correlation between ethnicity and depression was eliminated. The complete path model accounted for more than twice as much variation in the depression variable as did a regression that included only ethnicity as a predictor variable ($R^2 = .29$ compared with $R^2 = .14$). Results thereby supported goal self-concordance as a mediator of the association between ethnicity and depression.

**Discussion**

The Vietnamese are one of the fastest growing ethnic minority groups in the United States (Portes & Rumbaut, 1990). Accompanying the influx in migration is
recent research that indicates that major depression is a common mental problem among Vietnamese immigrants who present for care in psychiatric settings (Hinton et al., 1993; Hinton et al., 1998; Hinton et al., 1997). In accord with the foregoing research, we found that, like their immigrant parents, the present Vietnamese American young adults reported high levels of depression compared with their European American peers (Felsman et al., 1990; Tran, 1993; Webb, McKelvey, & Strobel, 1997).

When examining cultural–psychological phenomena, researchers quite commonly look for associations between pairs of variables. In that spirit, they have developed a large literature examining connections between ethnicity and well-being outcomes (e.g., Hinton et al., 1993; Hinton et al., 1998; Hinton et al., 1997). Such connections can help identify at-risk populations. The data, however, often do not speak to how or why such effects occur (Baron & Kenney, 1986). Our search for mediators offers theoretical clarity as to why there is a connection between ethnicity and depression. By identifying mediators, researchers may be better able to explain why some young adults are prone to depression, whereas others are not.

Applying the self-concordance model to our predictions, we found support for our mediational hypothesis. After we statistically controlled for goal self-concordance, the previously significant relationship between ethnicity and depression disappeared. One explanation of that finding is that autonomous, or self-concordant, goal pursuit is a fundamental quality of human experience. Ryan and Deci (2000) have suggested that, like the needs for competence and relatedness, the need for autonomy is universal and, thus, must be satisfied in all cultures for people to be optimally healthy. Thus, by assuming that self-concordant goal pursuit is fundamental to optimal well-being, one is able to see unity (or equifinality) within broad diversities of behavior across cultures.

The present finding that goal self-concordance had a positive affect on well-being across two diverse ethnic groups is consistent the observation that, although both the genesis and the focus of research concerning independence and interdependence have heretofore been cross-cultural, members of Eastern and Western cultures are capable of displaying both kinds of values (Triandis, 1995). In addition, the preceding results parallel similar findings with Bulgarian (Deci et al., 2000) and Russian samples (Ryan et al., 1999).

Finally, several theoretical and methodological concerns deserve attention. In applying the self-concordance model, we did not assess goal attainment. Carver and Scheier (1990) reported that goal attainment led to enhanced well-being. However, we suspect that the present participants whose goals were not self-concordant would have experienced little change in well-being, no matter how well they progressed in achieving their goals. In addition, one should consider the obtained effects provisional because of the need to replicate cross-sectional findings with longitudinal research.

Despite the limitations just noted, we believe that the self-concordance model (Sheldon & Elliot, 1999) offers a flexible framework for studying funda-
mental questions in the field of cultural psychology. In particular, the model provides a way of testing explicit assumptions about the nature of goal pursuit across varying cultural groups and of examining the effects of such pursuits on well-being. Considerable research now attests to the qualitative advantage of self-concordant, relative to controlled, motivation across a multitude of tasks and settings (see Deci, Koestner, & Ryan, 1999, for a review). Extending those findings with other non-European participants is a promising area for future cross-cultural investigation.

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