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Hope Measurement in Mexican American Youth

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Hope is a motivational construct that has been associated with many positive outcomes in children, adolescents, and adults. Although research with the Children's Hope Scale (CHS) has demonstrated support for the reliability and validity of the CHS with various samples of youth, there is little empirical evidence for its use with Latino youth. The current study examined the psychometric properties of the six-item CHS in a sample of 135 Mexican American youth. Confirmatory factor analyses provided support for a hierarchical representation of the CHS with two underlying factors (pathways and agency). CHS scores were found to be positively correlated with measures of positive affect, life satisfaction, support from family and friends, and optimism. Additional analyses provided evidence supporting convergent

validity and measurement invariance across gender. Implications and directions for future research are discussed.

La esperanza es lo ultimo que se pierde (Hope is the last thing that is lost).
    —Unknown

Hope has been discussed in countless writings and stories from mythology, religion, philosophy, education, and science. Over the past 20 years, psychologists have attempted to conceptualize and measure hope in an effort to better understand its influence in the lives of youth and adults. The most well-known operationalization of hope was provided by Snyder (1994) and has been used as the basis of numerous studies. Based on Snyder's hope theory, dispositional hope is comprised of two relatively distinct ways of appraising or thinking about goals. Pathways thinking relates to the perceived ability to generate routes toward desired goals and is necessary to attain goals and navigate around obstacles. Agency, or willpower, is considered the mental determination and energy necessary to begin and sustain movement toward goals. Pathways and agency are positively related but represent distinct aspects, each of which is not sufficient to define hope (Chang & DeSimone, 2001; Snyder, 2002).

Hope has been theoretically distinguished from other strength-based constructs such as optimism (Scheier & Carver, 1985) and self-efficacy (Bandura, 1982). Unlike optimism, which focuses on the agency-like, generalized expectancies that one will experience good outcomes in the future, hope theory gives equal emphasis to pathways as well (Snyder, 2000). Similarly, self-efficacy theory primarily reflects an individual's perceived capacity to engage in actions that will provide movement toward specific goals (similar to agency thoughts) but focuses less on pathways thinking. Research by Magaletta and Oliver (1999) demonstrated that hope produces unique variance independent of optimism and self-efficacy in the prediction of well-being.

Hope has been shown to be an important predictor of a wide range of adaptive outcomes (Edwards, Rand, Lopez, & Snyder, 2006; Snyder, 2002). Among adults, findings have suggested that hope scores are positively correlated with measures of psychological adjustment (Snyder, Cheavens, & Sympson, 1997; Snyder et al., 1991; Sympson, 1999), physical health (Barnum, Snyder, Rapoff, Mani, & Thompson, 1998; Elliott, Witty, Herrick, & Hoffman, 1991), and academic and

athletic performance (Curry, Snyder, Cook, Ruby, & Rehm, 1997; Snyder, Sympson, Michael, & Cheavens, 2001).

A limited number of studies have examined the relationships between hope and various adjustment outcomes relevant to youth (Barnum et al., 1998; Lewis & Kliewer, 1996; Snyder, Hoza, et al., 1997; Valle, Huebner, & Suldo, 2004). Using the six-item Children's Hope Scale (CHS; Snyder, Hoza, et al., 1997), data with primarily European American samples suggest that children with high hope tend to have lower levels of depression and higher self-perceptions of athletic ability, physical appearance, social acceptance, and scholastic competence (Snyder, Hoza, et al., 1997). Hope also appears to be related to adolescent health outcomes, as evidenced by findings that high-hope survivors of serious burn injuries engaged in fewer externalizing behaviors that might hinder their recovery (Barnum et al., 1998).

Recent investigations of hope in primarily African American youth have provided support for the reliability and validity of the CHS with this population (Valle et al., 2004), however further basic information is needed to understand hope in other non–European American populations and more specifically, Latino youth. In particular, studies have not yet systematically examined (a) the extent to which Latino youth interpret the items of the CHS scales in comparable ways to European American youth or (b) the convergent and discriminant validity of the CHS with analytic procedures that test the fit of alternative theoretical measurement models. In addition, despite mean-level analyses of race and gender (Snyder, Hoza, et al., 1997; Valle et al., 2004), evidence of measurement invariance of the CHS with respect to gender in Latinos has not been previously demonstrated.

Latino Youth and Hope

Hope may be a particularly important strength or resource among Latino youth, who often are confronted with the dual challenges of negotiating the transition to adulthood (Phinney, 1990; Phinney, Kim Jo, Osorio, & Vilhjalmsdottir, 2005) and developing a positive bicultural identity within both Latino and European American cultures (Phinney & Devich Navarro, 1997; Romero & Roberts, 2003). As these youth identify and develop goals across various life arenas, they may need to marshal agency and pathways thoughts to navigate

around obstacles such as poverty, discrimination, and other bicultural stressors. Adams and colleagues (2003) suggested that African Americans, for example, use hope to buffer the negative effects of adversity such as racism. It is likely that hope may similarly serve an important protective function for Latino youth as well. Before questions about the role of hope in the lives of Latino children and adolescents can be answered however, it is essential to establish the validity of the measurement of hope for these youth.

The principal aim of the present study was thus to evaluate the construct validity of the CHS in a sample of Mexican American youth. The analyses in the present study addressed three main questions. First, does the hypothesized hierarchical two-factor structure provide an acceptable measurement model for the CHS in a sample of Mexican American youth? To answer this question, a confirmatory factor analysis (CFA) was used to impose a two-factor measurement model on the data and to evaluate the adequacy of the model in comparison to competing models. Second, is the same measurement model warranted for males and females? To address this question, a multigroup CFA was used to test hypotheses about the invariance of the CHS measurement model with respect to gender. And third, is there evidence for the construct validity of the hypothesized two-factor model? Here, convergent and discriminant correlations were calculated to demonstrate the interrelationships between the CHS and criterion measures (e.g., life satisfaction, positive and negative affect, optimism, and perceived support from family and friends).

Method

Participants

Participants in this study were 135 English-speaking Mexican American youth (73 females and 62 males). The mean age was 14.22 (SD = 1.06, range = 11 to 15) years. Participants were part of a larger sample of Latino adolescents (N = 309) solicited from various schools and programs that serve Latino students in California, Kansas, and Texas who completed a packet of measures related to well-being. Because of the noted heterogeneity that exists among Latino groups (Umaña-Taylor & Fine, 2001), only the Mexican American participants were included in the present study.

Materials

Hope Scale

The Children's Hope Scale (Snyder, Hoza, et al., 1997) is a six-item dispositional measure of hope designed for children ages 8 to 16. Based on Snyder's model of hope, three items on the hope scale measure agency, and the other three measure pathways. Items are responded to on a 6-point scale (1 = *none of the time*, 6 = *all of the time*). Sample agency and pathways items include "I am doing just as well as other kids my age" and "I can think of many ways to get the things in life that are most important to me," respectively.

In the process of scale development and validation, the CHS was administered to six different samples of children with various health concerns, behavioral disorders, and with no primary psychological or physical concerns (Snyder, Hoza, et al., 1997). Children's scores were correlated positively with scores on various measures of children's self-perceived competence and control and self-worth, including self-perceptions in areas of scholastics, social acceptance, athletics, physical appearance, and behavioral conduct. Also, higher scores on the CHS were related to children linking themselves to positive events and distancing themselves from negative ones (Snyder, Hoza, et al., 1997). Estimates of internal reliability for the Children's Hope Scale range from .72 to .86, with a median alpha of .77. The test-retest correlation over a 1-month period was positive and significant at .71. In the current sample, the alpha reliability was .89.

Criterion Measures

Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a global, cognitive, five-item measure of life satisfaction. Participants indicate their agreement with each item using a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Sample items include "In most ways my life is close to my ideal" and "So far I have gotten the important things I want in life." The SWLS has adequate psychometric properties, with internal reliability estimates ranging from .41 to .94, with a mean of .78. The SWLS has been used to assess life satisfaction in adolescents, including samples of African American adolescents (Kliewer et al., 2006). The alpha reliability for the current sample was .80.

Positive and Negative Affect Schedule for Children. The Positive and Negative Affect Schedule for Children (PANAS-C; Laurent et al., 1999) is a developmentally appropriate version of the Positive and Negative Affect Schedule (PANAS) developed for adults by Watson, Clark, and Tellegen (1988). The scale consists of 30 descriptors of mood that are each responded to on a 5-point Likert scale (1 = *very slightly or not at all*, 5 = *extremely*). Sample descriptors include "sad," "upset," "cheerful," and "delighted." Internal reliability estimates of the PANAS-C were .91 for positive affect and .88 for negative affect. Coefficient alpha estimates for the positive and negative affect subscales in this study were .89 and .92, respectively.

Life Orientation Test-Revised. The Life Orientation Test–Revised (LOT-R; Scheier, Carver, & Bridges, 1994) was developed to assess individual differences in generalized optimism versus pessimism. The LOT-R is a 10-item measure (4 are fillers) that participants respond to on a 5-point Likert-type scale (1 = *I disagree a lot*, 5 = *I agree a lot*). Sample items include "If something can go wrong for me, it will" and "I hardly ever expect things to go my way." Psychometric properties for the LOT-R have been found to be acceptable, and studies have used the scale with adolescents (Bush, Mandel, & Giardina, 1998) and ethnically diverse adolescent females (Goodman, Chesney, & Tipton, 1995). Internal reliability estimates for the LOT-R in development studies were .78 (Scheier et al., 1994). In the present study, a coefficient alpha of .58 was obtained.

Multidimensional Scale of Perceived Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is a 12-item scale that measures perceived support from three domains: family, friends, and a significant other. Participants are asked to respond to items on a 7-point Likert-type scale (1 = *very strongly disagree* to 7 = *very strongly agree*). Sample items from the Family and Friends subscale include "I get the emotional help and support I need from my family" and "I can count on my friends when things go wrong." In a study of urban, primarily minority adolescents, internal reliability estimates of .93 for the total score and .91, .89, and .91 for the Family, Friends, and Significant Others subscales were obtained (Canty Mitchell & Zimet, 2000). In the present study, the perceived support from family (alpha = .84) and perceived support from friends (alpha = .79) scales were used.

Procedure

Participants were solicited by contacting public and private schools and Federal TRIO and League of United Latin American Citizens (LULAC) National Educational Service Centers. The primary researcher discussed the project with administrators and other staff to obtain initial approval to recruit participants. Once consent was obtained from parents via Spanish/English letters sent home to families, youth who volunteered to participate in the study also provided written assent. Students were then administered a packet of measures during a 45-minute period of school or after-school program. In some cases, the researcher went to the sites to administer the surveys, and in other cases the site staff administered the surveys and returned them to the researcher via mail. Participants were informed that the investigator was examining variables that contributed to well-being in middle and high school students, their participation was voluntary, and there was no compensation for participating in the study. Only participants who spoke English were asked to complete the packet of questionnaires.

Results

Testing Confirmatory Models of Factor Relationships and Measurement Invariance

To address the first two questions in this study, we sought to provide evidence of the factorial validity and measurement invariance across gender of the CHS. To this end, seven models—to be tested and compared through confirmatory analyses—were specified for the covariances among the six items indicating the two hypothesized dimensions (agency and pathways) of hope. Models 1 through 4 were specified for the covariances obtained in the sample of all participants. Models 5 through 7 were specified in multiple group analyses for the covariances obtained separately within male and female samples.

Measurement model specification. Model 1, the null model, is the base model for analyses within the total sample. Model 1 required no common factors: Only the scale variances were estimated and the intercorrelations among the scales were set to zero. Model 2, a one-factor model, allowed for an evaluation of the adequacy of the measured variables as indicators of a single latent factor. Model 3, a single second-order model, served as the theoretical model (Snyder,

Hoza, et al., 1997). Specifically, Model 3 stipulated a priori that (a) the measured variables could be explained by two first-order factors (i.e., pathways and agency) and one second-order factor (i.e., hope), (b) each item would have a nonzero loading on the first-order factor it was designed to measure and zero loadings on the other first-order factor, (c) residual terms associated with each item would be uncorrelated, and (d) covariation among the two first-order factors would be explained fully by their regression on the second-order factor. To the extent that Model 3 adequately describes the relationships among the variables, there is evidence that the pathway and agency factors are indictors of a unitary general dimension of hope. Finally, Model 4 served as a refined measurement model in which item factor loadings were allowed to be respecified on the basis of differences between observed and model-implied correlations.

Table 1 presents the results of comparative analyses of fit for Models 1 through 4. As measures of each model's absolute fit, we used the ratio of chi-square to degrees of freedom (χ^2/df; Hoelter, 1983), the Goodness-of-Fit Index (GFI; Joreskog & Sorbom, 1993), and the root mean square error of approximation (RMSEA; Steiger, 1990). As measures of each model's relative fit, we used the Comparative Fit Index (CFI; Bentler, 1990) and the Non-Normed Fit Index (NNFI; Bentler, 1980). Finally, relative improvements in goodness of fit were assessed using a nested chi-square test. Statistically significant reductions in chi-square suggest that the additional parameter improved the model specification (Hu & Bentler, 1995). Table 1 shows that the hypothesized hierarchical two-factor model (Model 3) fit the data better than any of the alternative null or one-factor models. However, this hypothesized two-factor representation of the data provided an inadequate measurement model for the current sample ($\chi^2/df = 2.54$, $p < .05$, RMSEA = .11). Inspection of the correlated residuals suggested that Item 5, originally specified to measure the agency factor, had a large and positive correlation with the indicators of the pathways factor. Respecifying the indicator to load uniquely on the pathways factor resulted in a significant improvement in model fit ($\chi^2/df = 12.27$, $p < .001$, RMSEA = .01). First-order factor loadings, item means, and standard deviations for the refined six-item, two-factor measurement model can be seen in Table 2. In addition, Table 3 presents the second-order factor loadings and residual variances of the first-order factors for the refined hierarchical hope model.

Invariance model specification. Having identified an appropriate measurement structure for the current sample, it was then necessary to determine whether the refined measurement model for the CHS was equally applicable to the data of males and females. That is, in addition to examining comparative analyses of alternative measurement models, evidence was sought for multigroup invariance. Specifically, the gender replicability of the CHS was examined by positing several measurement invariance models. Testing for invariance involved the examination of three increasingly restrictive hypotheses, each nested within the one proceeding; these related to the equivalence of (a) first-order factor loadings, (b) factor correlations, and (c) residual variances. Analyses involved specifying a model in which specific parameters were constrained to be equal across gender, then comparing that model with a less restrictive model in which the same parameters were free to vary. The difference in chi-square values ($\Delta\chi^2$) between competing models provides a basis for determining the acceptability of the hypothesized equality constraints—a significant $\Delta\chi^2$ indicating noninvariance (Joreskog & Sorbom, 1993).

Model 5, a strict invariance model, requires all the parameters of the model be equal for both groups. This is equivalent to a requirement that the factor correlations, factor communalities, and residual variances be invariant. Model 6, a sampling invariance model, requires that the factor loadings and factor correlations are the same for both groups and only the residual variances are allowed to be different. This is referred to as a sampling invariance model because a good fit suggests that the obtained samples are equally representative of the population from which all such samples might be drawn (Meredith, 1993). Finally, Model 7, a metric invariance model, requires that the factor pattern matrix in the male sample be perfectly proportional to the factor pattern matrix in the female sample while allowing the factor correlations and residual variances to be different. If a hypothesis of metric invariance can be retained, it is evidence that the same common factors measured in the same way are indicated in the samples over which the invariance obtains (Horn & McArdle, 1992). Table 1 shows that the refined two-factor model satisfied the requirement of strict measurement invariance, generating gender-equivalent factor correlations, factor loadings, and factor uniqueness,

$\Delta\chi^2(8, N = 135) = 7.65, p > .10$. Thus, the refined factors appear to have the same meaning for male and females in the current sample.

Assessing Construct Validity

The third question in this study related to the assessment of the construct validity of the refined CHS. This was accomplished by comparing hope scores with scores on measures of other constructs hypothesized to be either correlated (convergent validity) or uncorrelated (discriminant validity) with the CHS. Table 4 shows the correlations between the CHS and measures of positive and negative affect, life satisfaction, social support (from family and friends), and optimism. As can be seen, scores on the CHS were significantly positively correlated with measures of well-being (i.e., positive emotions and life satisfaction), perceived social support, and optimism and uncorrelated with negative affect.

Discussion

The purpose of the present study was to examine the validity of the Children's Hope Scale (Snyder, Hoza, et al., 1997) in a sample of Mexican American youth. Theoretical writings suggest that hope can be assessed by two distinct factors: pathways and agency (Edwards et al., 2006; Snyder, 2002). This theory was supported by a hierarchical measurement model that incorporates past measures and is grounded in previous findings. Of notable importance in the present study is the establishment of an appropriate measurement model of hope among Mexican American youth. Although the original two-factor model has a strong theoretical foundation, its fit was relatively poor to serve as a formal measurement model in the current sample. The refined model in contrast in which Item 5 was respecified and allowed to load uniquely on the pathways factor resulted in a significant improvement in model fit.

Although originally developed as an agency indicator, Item 5 ("I think the things I have done in the past will help me in the future") loaded more highly on the pathways factor, suggesting that in this sample the item is tapping into thoughts about finding routes toward goals rather than the overall mental energy or determination to move toward goals. Perhaps in the current sample the item is interpreted as having less to do with energy and more to do with concrete routes for navigating obstacles in the future. Whether one should adopt the two-

factor model or its hierarchical counterpart depends on one's research objectives. The first-order model enables one to examine the relationship between the two lower-order hope factors. The higher-order model in contrast enables one to examine the common variance between the two hope factors as an independent or dependent variable in its own right. In either case, the present study suggests that researchers interested in assessing hope in Mexican American youth can enhance both conceptual and predictive precision by using the refined CHS.

Overall, the results provide evidence for both the convergent and discriminant validity of the CHS. Scores on the CHS were correlated with criterion measures to which it is presumed to correspond (positive affect, optimism, perceived support from family and friends, and satisfaction with life) and uncorrelated to negative affect. Thus, in the current sample of Mexican American youth, hope may best be conceptualized as an approach disposition whose nomological network includes other positive psychological constructs. In addition, the results of the present study illustrate the importance of measurement invariance when assessing gender differences in hope among Mexican American adolescents. Specifically, the measurement invariance of CHS scores across gender suggests that the refined model was equally applicable to male and female participants, providing additional support for its utility with both male and female Mexican American youth.

It is important to acknowledge several limitations with this research. First, only self-report measures were used as criteria for assessing construct validity of the CHS. Clearly, it would be advantageous to include behavioral and physiological criterion measures of well-being. It also is important to note that several of the measures used for support of convergent validity were not developed for Mexican American youth (e.g., Satisfaction With Life Scale, Life Orientation Test-Revised). Thus, future studies should attempt to use measures that have provided support for their construct validity with Mexican American youth specifically.

It appears that the CHS is a useful tool for researchers interested in measuring hope in Mexican American children and adolescents. Future research should attempt to replicate these findings with a larger group of Mexican American youth and evaluate the utility of the CHS with other Latino ethnic groups (i.e., Cuban, Colombian,

etc.) as well as other ethnically diverse groups in general. Future investigations can continue to shed light on the assessment and measurement of hope within diverse populations as well as understand the nature of this strength-based construct within specific cultural contexts.

Authors

Lisa M. Edwards, PhD, is assistant professor in the counseling and educational psychology department at Marquette University. She received her PhD in counseling psychology from the University of Kansas and was previously a research associate at the University of Notre Dame. Edwards's current research focuses on positive functioning and well-being among racial/ethnic minorities in the United States. Specifically, she examines the influence of cultural resources (e.g., *familismo* and ethnic identity) on well-being among Latino adolescents, ethnically diverse college students, and multiracial individuals. She is particularly interested in how youth and adults use strengths to promote positive functioning in addition to buffering the negative effects of discrimination and other bicultural stressors. She currently teaches courses in multicultural counseling, assessment, and group counseling. In her spare time, Edwards enjoys traveling, doing yoga, and spending time with family and friends.

Anthony D. Ong, PhD, is assistant professor of human development at Cornell University. He received his PhD in developmental psychology from the University of Southern California. His general research focus is on identifying and describing the multiple pathways through which converging behavioral, psychological, and sociocultural processes contribute to resilience across the life course. A central theme of this research is to understand how certain individuals show maintenance, recovery of, or even improvement in health and well-being over time despite the presence of challenge and adversity. Specific areas of interest include positive health (i.e., identify psychological, behavioral, and biological factors that contribute to resilience and wellness), social connectedness (i.e., explicate the mechanisms by which positive social ties influence health and well-being), inequality (i.e., clarify the role of cultural resources in averting exposure to racism and discrimination), and methodology (i.e., use innovative techniques that can specify developmental trajectories, identify nonlinearities in indicators, and incorporate narratives and life stories as sources of data). He teaches courses in adult development and positive psychology. He serves on the editorial board of *The Journal of Positive Psychology* and is coeditor of the *Handbook of Methods in Positive Psychology* (Oxford University Press). In his spare time, he enjoys tennis, biking, and napping.

Shane J. Lopez is associate professor of counseling psychology at the University of Kansas, Lawrence, where he teaches courses in positive psychology, psychological assessment, and educational leadership. He also is a Gallup senior scientist, a role through which he consults primarily with The Gallup Education Division and Gallup University. He serves on the editorial board of *Journal of Positive Psychology* and on the advisory board for *Ready, Set, Learn*, the Discovery Channel's preschool educational television

programming. Through his current research programs, he is examining the effectiveness of hope training programs in the schools (under the auspices of the Making Hope Happen Program), refining a model of psychological courage, and exploring the link between soft life skills and hard outcomes in education, work, health, and family functioning. His books include *The Handbook of Positive Psychology* (Oxford) and *Positive Psychological Assessment: A Handbook of Models and Measures* (American Psychological Association Press), both with C. R. Snyder. He and his wife, Allison, live with their son, Parrish, in Lawrence, Kansas, where they attempt to live the good life every day and long for the temperate Louisiana winters of their childhoods every February.

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Appendix

Table 1: Goodness-of-Fit Statistics for Various Measurement Models of Children's Hope Scale (CHS)

Model	x^2	df	(x^2/df)	GFI	RMSEA	CFI	NNFI	Δx^2	Δdf
Measurement Models									
1. Null	410.030	15	27.34						
2. One factor	25.80	9	2.87	.94	.12	.96	.94	384.23***	6
3. Two factor	20.28	8	2.54	.95	.11	.96	.95	5.52*	1
4. Refined two factor	8.01	7	1.14	.98	.01	.99	.98	12.27***	1
Invariance models									
5. Strict invariance	7.65	8	0.96	.98	.01	.99	.98		1
6. Sampling invariance	8.06	7	1.15	.96	.01	.98	.96	0.41	1
7. Metric invariance	9.14	6	1.52	.94	.04	.92	.91	1.08	1

Note: N = 135. GFI = Goodness-of-Fit Index; RMSEA = root mean square error of approximation; CFI = Comparative Fit Index; NNFI = Non-Normed Fit Index; Δx^2 = chi-square difference; Δdf = degrees of freedom difference.

*p < .05. ***p < .001.

Table 2: Confirmatory Factor Analysis Factor Loadings, Item Means, and Standard Deviations for the Refined Six-Item, Two-Factor Measurement Model of the Children's Hope Scale (CHS)

CHS Items	Factor Loading	M	SD
Agency			
1. I think I am doing pretty well.	.73	4.39	1.06
3. I am doing just as well as other kids my age.	.95	4.33	1.37
Pathways			
2. I can think of many ways to get the things in life that are most important to me.	.71	4.41	1.24
4. When I have a problem, I can come up with lots of ways to solve it.	.74	4.03	1.40
5. I think the things I have done in the past will help me in the future.	.68	4.59	1.46
6. Even when others want to quit, I know that I can find ways to solve the problem.	.74	4.35	1.32

Note: *N* = 135. Item numbers refer to the original ordering of items in Synder, Hoza, et al. (1997).

Table 3: Second-Order Factor Loadings and Residual Variances of the First-Order Factors for the Refined Hierarchical Confirmatory Factor Analysis Model of the Children's Hope Scale (CHS)

CHS Factors	Agency	Pathways
Factor loading (γ)	1.21	1.05
Standard error of factor loading	0.22	0.25
Standardized factor loading	0.93	0.81
Squared multiple correlation	0.86	0.65
Standardized residual variance	0.14	0.35

Table 4: Means, Standard Deviations, and Correlations Among Variables

Variable	1	2	3	4	5	6	7
1. Hope	—	.44**	.28**	.32**	.49**	-.09	.41**
2. Life satisfaction		—	.48**	.40**	.23**	-.20*	.25**
3. Support-family			—	.43**	.06	-.24**	.13
4. Support-friends				—	.34**	-.00	.23**
5. Positive affect					—	.06	.26**
6. Negative affect						—	-.17
7. Optimism							—
M	26.10	24.45	22.30	22.00	53.03	27.26	20.05
SD	5.77	5.78	5.35	4.95	11.27	11.17	3.74