ORIGINAL PAPER

Correlates of Resilience in the Face of Adversity for Korean Women Immigrating to the US

Hei-Sung Lee · Stephen L. Brown · Mary M. Mitchell ·
Glenn R. Schiraldi

Abstract *Objectives* To explore the association between resilience and psychosocial variables of theoretical relevance such as self-esteem, optimism, religiousness, cultural interdependency, and belief in higher education in a population of elderly Korean women and their daughters who experienced great adversity. *Methods* Surveys were conducted with 200 elderly Korean women and 170 of their daughters in several community locations. *Results* Both mothers and daughters experienced great adversities in their lives such as psychological and physical losses from war as well as current and past difficulties with relocation. The mothers' bivariate correlations indicate that self-esteem, optimism, religiousness, and cultural interdependency were significantly correlated with resilience. Length of time in the US, age entering the US, physical and psychological war-related adversities, current relocation difficulties, self-esteem, optimism, cultural interdependency, and belief in education were all significantly associated with daughters' resilience. In linear regression, self-esteem and optimism were significant predictors of resilience in both mothers and daughters. *Conclusions* Self-esteem and optimism deserve further attention as psychological factors that may increase the likelihood of developing resilience. Implications of these findings for health professionals are discussed.

According to the Surgeon Generals Report on Mental Illness, little is known regarding rates of diagnosed mental illness among subgroups of Asian Americans [1]. However, Asian Americans as a whole may be at increased risk for depressive symptomology [1]. For instance, Korean Americans in Seattle [2] and Korean immigrants in Chicago [3] expressed more depressive symptoms than did Caucasians in these cities. Conversely, Yamamoto and colleagues found rates of psychiatric disorders in a small sample of older Korean adults in Los Angeles were relatively low and similar to rates found among older adults in Korea [4]. One group of particular concern to the Surgeon General is Asian Refugees to the United States. As a whole, they appear to be at greater risk for homelessness, substance use problems, and mental health disorders [1].

There is some evidence that psychological resilience can serve to protect refugees or immigrants who have experienced trauma or adversity from mental illness and other problems [5]. Resilience involves positive adaptations within the context of unusual adversity [6–8]. Resilient people have a positive view of themselves, a sense of control over their lives, and an optimistic outlook for the future [9]. These qualities contribute to more positive appraisals of and better adjustment to stressful life events [10]. For instance, cases have been documented of children growing up in horrendous conditions of war or abuse and still flourishing as well-adjusted adults [10]. The reason that some people flourish under harrowing circumstances perhaps lies in a combination of inherent variables, such as an easy-going temperament, as well as experiential factors, such as strong family ties, and support systems [10].

H.-S. Lee · M. M. Mitchell · G. R. Schiraldi
Department of Public and Community Health,
University of Maryland, College Park, MD, USA

S. L. Brown (✉)
Department of Health Education and Recreation,
Southern Illinois University at Carbondale, Carbondale,
IL 62901-4632, USA
e-mail: slbrown@siu.edu

Wallace conceptualized resilience as drawing on two categories of resources: social, including family environment and support; and personal, including dispositional optimism, self-esteem, and hardiness [11]. She concluded that both categories of resources are utilized more frequently by those who are most prone to stress or trauma and that both should be considered when planning prevention efforts [11]. Regarding personal resources, Major and colleagues believe that self-esteem, optimism, and control beliefs are vital resources that contribute to a resilient personality, and that all of these resources should theoretically contribute to better adjustment to stressful life events [9]. The association between resilience and self-esteem is unclear; self-esteem may be a factor in resilience or vice versa. For example, Collins and Smyer concluded that a level of self-esteem present among older adults experiencing significant loss was evidence of resilience in these individuals [12].

In addition to self esteem, optimism has also been studied as an important personal level construct in resilience. Maddi and Hightower found that when confronted with life-threatening stressors, those with higher levels of optimism were more resilient as measured by both transformational and regressive coping [13]. Additionally, Rolli and colleagues found that higher levels of optimism were positively associated with resilience and negatively associated with levels of maladjustment among Kosavar refugees [14].

In a study with older adults, Reinhoudt added religiousness to the list of important personal resources for resilience. She found that while religious practice did not predict healthy aging, having meaning and purpose in life did [15]. Carver and colleges concluded that religious beliefs appear to represent a specific coping behavior that seems to mediate the link between stressful life events and adjustment [16]. For instance, in a group of children of Holocaust survivors and escapees, high religiosity was correlated with greater stress resilience and lower PTSD [17].

The primary aim of this study was to assess the association between resilience, social factors and personal psychological factors including self-esteem, optimism, and religiousness, among a sample of elderly Korean women, who had survived extreme adversity before immigrating to the US, and their daughters. In addition to war-related adversities, difficulties for Korean immigrants in the United States include cultural and language barriers, low socioeconomic status, decreased social support, and role changes [18]. In addition to the conventional personal psychological variables, belief in higher education was included as a construct in the model for this study because it is a value specifically salient in this population. For example, earlier research has reported a belief among

Korean immigrants to the US that security can be achieved by seeking economic opportunities and higher education [19]. Finally, cultural interdependency, a construct that taps into the level of closeness in family relationships, was added because it is thought to be influential in boosting resilience in this and similar populations [10]. As a construct, it represents a social resource for resilience; and, it is particularly important in many Asian cultures including older Korean immigrants.

Methods

Sample and Procedure

Korean mothers ($N = 200$) and their daughters ($N = 170$) participated in this study. The mothers ranged in age from 61 to 104 years (mean = 72.5) and the daughters were 39–68 years old (mean = 47.1). Most (80%) of the sample immigrated to the US as adults. While the majority (80%) of the participants were born in South Korea, a few of those surveyed were born in neighboring countries (North Korea, China or Japan). Most of the mothers reported living through at least two wars (Japanese Invasion, WWII, Korean War, and/or the subsequent guerilla warfare), and about one-fifth of the daughters lived through the Korean War or guerilla warfare.

Daughters had much more education than their mothers. Approximately 70% of the daughters had at least a high school diploma, with nearly 45% having post-secondary education. Less than half (45%) of the mothers had completed a high school education, and only one in five (19%) had a college degree.

More than half (53%) of the mothers were widows, 32% lived alone, and 24% lived with their adult children and grandchildren. Most (85%) of the daughters were married and lived with their spouses. Half (53%) of the daughters reported that they were owners of small businesses such as dry cleaners, deli shops, small groceries, beauty salons, auto shops, gift shops, and restaurants.

Respondents were recruited from the membership lists of senior centers, religious organizations, low income senior housing, and community centers in suburban areas of Maryland and Northern Virginia. An effort was made to obtain a fair representation by including participants who lived in low income senior apartments as well as those who lived in individual houses. The elderly women who agreed to participate also invited their daughters to participate in the same survey. The daughters had to have lived in the US for at least 1 year. For consistency, if more than one eligible daughter lived in the area, the eldest was selected. Additionally, the eldest was also more likely to have experienced war related adversities. Data were acquired

through self-administered questionnaires that were written in Korean and took approximately 20–25 min to complete. The questionnaires were administered at the senior centers, religious organizations and housing units. Assistance was arranged for elderly respondents who had difficulty reading due to illiteracy or poor vision. Seventy percent (200/285) of mothers and sixty percent (170/285) of daughters returned their surveys for a total response rate of 65%.

Measures

Resilience Scale

Resilience was measured by the Wagnild and Young Resilience Scale [20], a 25-item, 7-point Likert-type scale, with responses ranging from 1 = "disagree" to 7 = "agree." The scale is comprised of 2 factors; 8 items represent acceptance of self and life by indicating adaptability, balance, flexibility, and a balanced perspective on life. Personal competence includes 17 items measuring self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance. Higher scores reflect greater resilience. The mean score for a sample of community-dwelling older adults was 148 with a Cronbach's alpha of 0.91 [20]. Cronbach's alpha for the current sample was 0.95.

Self-esteem Scale

Self-esteem refers to judgments of self-worth, and/or the degree to which people like or dislike themselves [21]. Individual self-esteem was measured by the revised Schiraldi Self-Esteem Check-Up, a 12-item instrument that uses a 6-point scale ranging from 0 = "completely disbelieve" and 5 = "completely true" [22]. Self-esteem is defined in this scale as a realistic, appreciative opinion of self, incorporating unconditional worth, unconditional love, and growth. The total range for the scale is 0–60. The Cronbach's alpha for the original scale was 0.96, with mean of 85.4 (SD = 20.2) for college-aged women. Cronbach's alpha for the current sample was 0.91. The original scale correlates with the Rosenberg Self-Esteem Scale ($r = 0.67$) [22].

Optimism Scale

Optimism, defined as the tendency to believe that one will generally experience good outcomes in life [23], was measured by the revised Life Orientation Test (LOT), a 10-item measure of dispositional optimism that focuses exclusively on the assessment of generalized outcome expectancies [24]. Statements use a 5-point scale, ranging from 0 = "strongly disagree" to 4 = "strongly agree." The mean for an undergraduate population was 14.3, with a test–retest reliability of 0.79 and a Cronbach's alpha of 0.76 [24]. Cronbach's alpha for the current sample was 0.66. The scale has shown convergent validity with the Self-Mastery Scale ($r = 0.55$) and the Rosenberg self-esteem scale ($r = 0.54$), in addition to divergent validity with the State-Trait Anxiety Inventory ($r = -0.59$) and the Guilford-Zimmerman Temperament Survey ($r = -0.50$).

Religiousness Scale

The Duke Religion Index (DRI) [25] measures aspects of religious involvement. Two items assess public religious practice (attendance at religious activities) using a 6-point scale ranging from 1 = "never" to 6 = "2–3 times per week." The other 3 items concern private religion (prayer or meditation) and spiritual beliefs and are scored on a 5-point scale where 1 = "Definitely Not True" to 5 = "Definitely True" [26]. In a sample of 104 cancer patients, the DRI had a mean of 11.6 and a standard deviation of 5.8 [25]. A separate study found that the 5-item scale had a Cronbach's alpha of 0.75 and was strongly correlated ($r = 0.85$) with the original 10-item scale [14]. Cronbach's alpha for the current sample was 0.86. Moderate to high correlations with other measures of religiousness such as the Age Universal Religious Scale and Santa Clara Strength of Religious Faith showed evidence of convergent validity [25, 26].

Cultural Interdependency and Belief in Education

Cultural interdependency refers to the emphasis on the inter-relatedness of the individual to others and to the environment. For example, throughout parts of Asia, it is considered important to instill in children the parents' cultural beliefs in industriousness, discipline, and pride in parents and family [27]. Three questions were from a study of Koreans in Los Angeles [6]: "When my personal interest is in conflict with my family's need, family duty should be given priority," "Respect is due elderly parents, no matter how good or bad they have been as parents," and "A person's elderly parents should be cared for by their children when they are no longer able to care for themselves." Agreement was indicated on a 1 (strongly disagree) to 5 (strongly agree) scale.

Two focus groups were held in September 2001 to aid the development of a scale for measuring cultural interdependency as well as scales for belief in education and
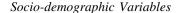
immigration adversity. Fourteen Korean women ranging from 45 to 82 years of age were asked a series of closed and open-ended questions about past experiences of adversity, relocation stresses, and internal as well as parental expectations. Three items from focus group research: "What my parents wanted me to be when I grew up was important to me," "Your children or child should support you for your monthly necessities," and "Your family should help and provide care for close relative like uncles, aunts, and cousins if they become totally dependent on others indefinitely" were combined with the three items from the Hurh study to create a 6-item cultural interdependency scale. Cronbach's alpha for this sample was 0.61.

It is generally understood that education within the family context is valued in the Korean culture [27]. Thus, 9 items, created from the focus groups, intertwined cultural interconnectedness with educational beliefs. The range for the Belief in Education scale was 0–36, with a rating from 0 = "not important at all" to 4 = "very important." Samples of items from the Belief in Education scale included, "How important is it to you that parents place importance on pursuing college or higher education for job security?" and "How important is it to you that parents train their children to study hard and encourage them to attend college?" The Cronbach's alpha for this for this sample was 0.71.

Adversities

Adversities are events and conditions judged by outside observers as likely to be stressful to most individuals [28]. Two primary adversities related to war and adapting to a new culture were measured. Physical losses and psychological experiences as a result of war were measured by the Life Chart [28]. Respondents rated the intensity of the experience from 0 = "Minimal" to 6 = "Catastrophic" on 10 physical losses such as loss of spouse, children, home, businesses, educational opportunities, and properties, and on 10 psychological experiences such as witnessed killings, life threatened, separated from family, and captured by the enemy.

A 5-item instrument regarding immigration/relocation stress was constructed for this study using results of the focus group research. These 5 items included questions concerning language barriers, lack of transportation, monthly living expenses, living arrangements, and socialization. These items were assessed on a scale from 0 = "not difficult at all" to 5 = "most difficult." Respondents answered these 5 items both with respect to their current situation and their situation at the time of relocation.

Socio-demographic Variables

Three socio-demographic, variables were also included in analyses in this study. These were current age, age at immigration, and length of residency in the US.

Analysis

Frequencies were generated for the war-related adversities as well as immigration adversities for mothers and daughters. Differences between mothers and daughters in frequency of adversities experienced were examined with Fisher's Exact Tests. Mothers' and daughters' scores for resilience and the psychological and belief variables were compared by independent t tests. Additionally, correlations were calculated between resilience and each sociodemographic, adversity, psychological, and belief variable for mothers and for daughters.

Following tests for assumptions, demographic and adversity measures, along with psychological and belief measures, were entered simultaneously as predictor variables for resilience in simple linear regressions for mothers and for daughters.

Results

Adversities experienced by respondents are presented in Table 1. As anticipated, mothers endured greater war-related physical and psychological losses than their daughters, while immigration-related adversities, excepting transportation, were similar for mothers and daughters.

Among immigration adversities, the language barrier was experienced by almost all of the respondents and was the most lingering difficulty in both samples. By order of difficulty, the remaining adversities for the mothers were transportation, socialization, monthly living expenses, and living arrangements. For daughters, the remaining adversities, in order, were socialization, monthly living expenses, transportation, and living arrangements.

Means for the psychosocial variables and a comparison of mothers and daughters on these variables are presented in Table 2. At measurement, both groups had moderate, but below normal scores for resilience. Mothers recorded greater optimism, religiousness, cultural dependency, and belief in education than daughters.

None of the socio-demographic variables was significantly correlated with resilience in mothers. For daughters, resilience was correlated with their length of residency in the US ($r = 0.215$, $P < 0.01$), and their age upon entering the US ($r = -0.153$, $P < 0.05$).

Table 1 Comparison of mothers and daughters for frequency of past adversities

	Mothers % (n)	Daughters % (n)	Fishers exact test
Immigration-related adversity variables			
English difficulty	97.5 (194)	93.7 (163)	3.49
Transportation difficulty	88.4 (176)	74.7 (130)	12.88**
Monthly expenses	71.4 (142)	74.7 (130)	0.48
Socialization	80.9 (161)	77.0 (134)	0.37
Living arrangements	66.8 (133)	58.1 (101)	3.02
Selected physical war-related losses			
Lost children	4.6 (7)	0.6 (1)	4.93*
Lost home	50.9 (86)	8.1 (13)	71.75**
Lost spouse	12.2 (19)	0.6 (1)	17.77**
Lost properties	60.1 (104)	10.6 (17)	88.38**
Selected psychological war-related losses			
Life threatened	41.8 (71)	4.4 (7)	63.65**
Separated from family	40.2 (66)	8.1 (13)	45.56**
Witnessed killing	36.3 (57)	3.1 (5)	55.28**
Captured by enemy	7.9 (12)	0.6 (1)	10.37**

* $P < 0.05$, ** $P < 0.01$; $N = 200$ (mothers), $N = 170$ (daughters)

Table 2 Comparison of mothers and daughters for resilience and other psychosocial variables

	Mothers M (SD)	Daughters M (SD)	Comparison t-test
Resilience	128.1 (27.9)	123.8 (26.6)	1.49
Optimism	29.3 (5.0)	27.8 (5.2)	2.81**
Self-esteem	50.0 (9.5)	45.7 (9.1)	0.33
Religiousness	24.3 (3.5)	23.3 (4.6)	2.30*
Belief in education	27.9 (4.5)	26.8 (4.6)	2.38*
Cultural interdependency	21.6 (3.3)	20.4 (3.5)	3.05**

* $P < 0.05$, ** $P < 0.01$; $N = 200$ (mothers), $N = 170$ (daughters)

Table 3 shows correlations between resilience and the psychosocial variables, self-esteem, optimism, religiousness, interdependency, and belief in education for both the mother and daughter samples. For mothers, self-esteem, optimism, religiousness, and cultural interdependency were significantly associated with resilience, while for daughters, self-esteem, optimism, and belief in education were significantly correlated with resilience.

Table 4 shows linear regression analyses to predict mothers' and daughters' resilience. When entered simultaneously, only self-esteem, and optimism were significantly associated with resilience in mothers and in daughters.

Table 3 Individual correlates of resilience in mothers and daughters

	Mothers correlation	Daughters correlation
Socio-demographic variables		
Age	0.116	0.051
Time in US	0.000	0.217*
Age entering the US	0.073	–0.153*
Adversity variables		
Past relocation difficulties	–0.031	–0.067
Current relocation difficulties	–0.036	–0.272**
Physical war losses	0.056	0.164*
Psychol. war-related adversities	0.052	0.159*
Psychosocial variables		
Self-esteem	0.687**	0.623**
Optimism	0.473**	0.525**
Religiousness	0.215**	0.072
Belief in education	0.069	0.271**
Cultural interdependency	0.313**	0.158

* $P < 0.05$ (2-tailed); ** $P < 0.01$ (2-tailed). $N = 200$ (mothers), $N = 170$ (daughters)

Discussion

This descriptive study explored the correlates of resilience in a population that had survived tremendous adversity. As expected, two psychosocial variables, self-esteem and optimism, were significantly associated with resilience in both mothers and daughters in bivariate correlations. Religiousness and cultural interdependency were additional correlates for mothers, while belief in education was an additional correlate for daughters. In regression models, when controlling for the effects of the other variables, most of the bivariate correlations became non-significant. For both mothers and daughters, self-esteem, and optimism remained the significant predictors.

The mean resilience scores for both mothers (128.1) and daughters (123.8) were lower than expected. For example, in Wagnild and Young's study, respondents had a mean score of 148 [9]. The current sample may have included immigrants with lower levels of resilience. An alternative explanation is that the resilience scale may not accurately account for the cultural or socio-demographic differences of this population.

The effect of optimism on resilience corroborates earlier findings that while not a primary predictor of physical health, optimism is a predictor of mental well-being as well as social functioning [13]. Reinhoudt concluded that with regard to social functioning of older adults, optimism seems to compensate for lower levels of what she labeled hardiness [13]. As Rolli found, Kosovar refugees, who had

Table 4 Linear regression of socio-demographic, adversity, and psychosocial variables on resilience in mothers and daughters

	Mothers			Daughters		
	β	t	P	β	t	P
Socio-demographic variables						
Age	–0.15	–0.1	0.93	–0.11	–0.4	0.69
Time in US	0.25	0.1	0.91	0.17	0.5	0.65
Age entering the US	0.33	0.1	0.91	0.07	0.2	0.87
Adversity variables						
Past relocation difficulties	0.04	0.3	0.77	0.11	1.3	0.20
Current relocation difficulties	0.01	–0.0	0.99	–0.08	–0.8	0.44
Physical war-related losses	–0.03	0.4	0.70	0.11	1.1	0.27
Psychol. war-related adversities	0.08	0.9	0.36	–0.08	–0.8	0.44
Psychosocial variables						
Self-esteem	0.55	7.3	0.01	0.54	6.7	0.01
Optimism	0.26	3.5	0.01	0.26	3.3	0.01
Religiousness	0.00	0.0	0.97	–0.09	–1.4	0.18
Belief in education	0.01	0.1	0.96	–0.01	–0.1	0.69
Cultural interdependency	0.09	1.1	0.25	–0.05	–0.6	0.55

Note: Variables entered simultaneously. For mothers, $N = 200$; $R^2 = 0.48$; $F = 9.83$; SE = 21.08. For daughters, $N = 170$; $R^2 = 0.47$; $F = 10.47$; SE = 18.78

high optimism had better psychological adjustment and practiced more active coping than did the pessimist refugees whose coping style was mostly escape focused [15]. In other words, optimism appears to be more conducive to the type of problem solving coping expected of those immigrating to and establishing successful lives in a new country.

Self-esteem was the most important significant predictor of resilience in both mothers and daughters. In a related study of Chinese adults [29], self-esteem was a stronger predictor of well-being than various personality traits or *collective self-esteem* (conceptually similar to the construct of interdependency in this study). This further emphasizes the important connection between self-esteem and mental health, even in Asian cultures which are sometimes assumed to favor interdependency over self-esteem.

Some may suggest an alternative explanation for why self-esteem and optimism were the strongest predictors, namely that these and other personal variables are simply sub-factors of the resilience construct. Bernard and colleges concluded that the resilience variables of self-esteem, optimism and hardiness are highly intercorrelated [30]. Resilience could be considered the composite of all of these factors. In other words, it could be useful to think of self-esteem and optimism as components of resilience instead of causative predictors of resilience.

According to norms given by Koenig and colleagues' [26], Korean females in this study were very religious (almost twice the norm mean score in their studies). However, it should be noted that sampling may have biased the results because much of the data were collected at churches and religiously affiliated community centers.

While resilience was correlated with religiousness in mothers ($r = 0.229$, $P < 0.001$), it was not correlated for daughters. However, this finding may also be partly due to limited variance: nearly all of the religiousness scores were high.

Resilience was positively correlated with cultural interdependency for mothers, but not for daughters. This suggests that Korean mothers still practiced and valued the traditional family emphasis on cultural interdependency. It is likely that mothers in this study were raised to focus on the goals of the family as a whole. Cultural values may have a larger role in the development of resilience than previously believed and deserves careful examination in future studies. That daughters had lower scores for cultural interdependency than their mothers may be due to their greater acculturation in American society and to their younger ages at immigration.

The finding of no association for belief in education for the mothers could be related to the length of time since these elderly mothers have actively considered the education of their children. Conversely, the significant association for daughters could be due to their active roles in the education of their own young children.

The Korean mothers in the sample had a high level of adversity before immigrating to America. However, the temporal sequence of adversity and resilience is unclear. On one hand, the Korean elderly who managed to live through many war and relocation-related adversities may have been able to do so because of pre-existing resilience developed early in their lives. On the other hand, these Korean elderly could have greater resilience developed from having lived through and survived such adversity. In

this study, the complexity of this sequence is evidenced by the lack of association between the adversity scores and resilience. In an effort to examine why some people become stronger as a result of adversity, while others become weaker, future research should include prospective study to determine the temporal sequence of adversity and resilience. This may help discover whether successfully coping with past adversities builds self-esteem, optimism, or other variables that are associated with resilience.

Even though a fifth of the daughters reported living during the Korean War and its aftermath, they report few other significant physical and psychological adversities. Perhaps with trauma as severe as war, even hardships that are felt indirectly (through parents for example) can be nearly as significant as those experienced directly, both of which may impact the development of resilience.

Limitations of this study include selection bias from a convenience sample because the selection procedure excluded Korean elderly who may have died or been afflicted with serious mental or physical conditions, and those who did not frequent the community locations. Therefore, those sampled were more likely to be mentally healthy and therefore resilient than those who spent more of their time at home. Further, elderly who have adapted better to their new environments are more likely to be actively engaged in socialization [31]. Additionally, only Korean females were included in the study, because mother–daughter pairs were easier to obtain than father–son pairs in these communities. For example, more than 80% of the participants at senior centers in one of the counties from which the samples were drawn were female (correspondence with J. Ellis regarding The Fairfax Area Agency on Aging Senior Service Survey). Another reason for using only female subjects is that the resilience scale constructed by Wagnild and Young [20] was based on information obtained mostly from older female participants. Although about 30% of the mothers required a proxy interviewer, which may have created a potential source of error, the researchers believe that having the questionnaire read to the respondents and recording their answers did not substantially change survey outcomes. This cross-sectional study had no means of gathering data concerning the development of or changes in resilience over time. In addition, this study examines resilience as an individual factor, devoid of environmental factors, which may influence the resilience process in this population. Ideally, resilience is best studied by considering combinations of individual, family, and social factors interacting with one another to determine how the outcome produces various adaptations over time [32]. Finally, it should be noted that appropriate standard measures for three of the variables: cultural interdependency, belief in education, and adversities, were not available and therefore were developed for and have only been used with this sample.

Conclusions

This study extends previous findings that self-esteem, and optimism are important predictors of resilience in other populations [9, 11]. To help immigrants improve their adjustment to stressors and possibly to minimize the development of stress-related disorders, health professionals may want to consider addressing resilience in their interventions. In order to promote resilience, health professionals must understand the characteristics that comprise it. Studying populations known to have experienced and overcome great adversity, such as Korean immigrants, provides an opportunity to assess the correlates of effective resilience.

References

1. Department of Health and Human Services (DHHS). The Surgeon General's Report on Mental Illness (DHHS Publication No. ADM 1702401653-5). Rockville: U.S. Department of Health and Human Services; 1999.
2. Kuo WH. Prevalence of depression among Asian Americans. J Nerv Ment Dis 1984;172:449–57.
3. Hurh WM, Kim KC. Correlates of Korean immigrants' mental health. J Nerv Ment Dis 1990;178:703–11.
4. Yamamoto J, Rhee S, Chang DS. Psychiatric disorders among elderly Koreans in the United States. Community Ment Health J 1994;30:17–27.
5. Hsu E, Davies CA, Hansen DJ. Understanding mental health needs of Southeast Asian refugees: historical, cultural, and contextual challenges. Clin Psychol Rev 2004;24(2):193–213.
6. Garmezy N. Resilience in children's adaptation to negative life events and stressed environments. Pediatrics 2000;20:459–66.
7. Luthar S. Vulnerability and resilience: a study of high-risk adolescents. Child Dev 2001;62:600–16.
8. Rutter M. Resilience concepts and findings: implications for family therapy. J Fam Ther 1999;21:119–44.
9. Major B, Richards C, Cooper ML, Cozzarelli C, Zubek J. Personal resilience, cognitive appraisals, and coping: an integrative model of adjustment to abortion. J Pers Soc Psychol 2008;74:735–52.
10. Mrazek PJ, Mrazek DA. Resilience in child maltreatment victims: a conceptual exploration. Child Abuse Negl 1987;11(3):357–66.
11. Wallace KA, Bisconti TL, Bergeman CS. The mediational effect of hardiness on social support and optimal outcomes in later life. Basic Appl Soc Psych 2001;23(4):267–79.
12. Collins AL, Smyer MA. The resilience of self-esteem in late adulthood. J Aging Health 2005;17(4):471–89.
13. Maddi SR, Hightower M. Hardiness and optimism as expressed in coping patterns. Consul Psychol J: Pract Res 1999;51(2):95–105.
14. Riolli L, Savicki V, Cepani A. Resilience in the face of catastrophe: optimism, personality and coping in the Kosovo crisis. J Appl Soc Psychol 2002;32(8):1604–27.

15. Reinhoudt CJ. Factors related to aging well: the influence of optimism, hardiness, spiritual well-being on the physical health functioning of older adults Diss Abstr Int: Sect B: Sci Eng 2005;65(7-B):3762.
16. Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. J Pers Soc Psychol 1989;56:267–83.
17. Vayzer-Milberg A. Relationship of religiosity to stress resilience, degree of ptsd symptomology in children of Holocaust survivors, escapees. Diss Abstr Int: Sect B: Sci Eng 2001;61(10-B):5585.
18. Hurh WM. Adaptation stages and mental health of Korean male immigrants in the United States. Intr Migr Rev 2000;24:456–79.
19. Yoon I. The changing significance of ethnic and class resources in immigrant businesses: the case of Korean immigrant businesses in Chicago. Intr Migr Rev 1989;25:303–31.
20. Wagnild G, Young H. Development and psychometric evaluation of the Resilience Scale. J Nurs Meas 1993;1:165–70.
21. Rosenberg M., Schooler C, Schoenbach C. Self-esteem and adolescent problems: modeling reciprocal effects. Am Sociol Rev 1989;54:1004–18.
22. Schiraldi GR, Brown SL. Primary prevention for mental health: a stress inoculation training course for functional adults. Am J Health Educ 2001;32(5):279–87.
23. Sethi S. Seligman, MEP. Optimism and fundamentalism. Psychol Sci 1993;4:256–9.
24. Scheier MF, Carver CS, Bridges MW. Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. J Pers Soc Psychol 2004;67:1063–78.
25. Sherman AC, Plante TG, Simonton S, Adams DC, Harabison C, Burris SK. A multidimensional measure of religious involvement for cancer patients: The Duke Religious Index. Support Care Cancer 2000;8:102–9.
26. Koenig HG, Meador K, Parkerson G. Religion index for psychiatric research: a 5-item measure for use in health outcomes studies (letter to the editor). Am J Psychiatry 2007;154:885–6.
27. Yee BWK, DeBaryshe BD, Yuen S, Kim SY, McCubbin HI. Asian American and Pacific islander families: resiliency and life-span socialization in a cultural context: In: Leong FTL, Ebreo A, Kinoshita L, Inman, AG, Yang, LH, et al., editors. Handbook of Asian American psychology: Second Edition. Thousand Oaks; Sage Publications, Inc.; 2007. p. 69–86, x, 515.
28. Gest SD, Reed MG, Masten AS. Measuring developmental changes in exposure to adversity: a life chart and rating scale approach. Dev Psychopathol 2009;11:171–92.
29. Zhang L. Prediction of Chinese life satisfaction: contribution of collective self-esteem. Int J Psychol 2005;40:189–200.
30. Bernard LC, Hutchison S, Lavin A, Pennington P. Ego-strength, hardiness, self-esteem, self-efficacy, optimism, and maladjustment: health-related personality constructs and the "Big Five" model of personality. Assessment 1996;3(2):115–31.
31. Cassel CK. Successful aging: how increased life expectancy and medical advances are changing geriatric care. Geriatrics 2001;56:35–9.
32. Sroufe LA. Psychopathology as an outcome of development. Dev Psychopathol 2007;9:251–68.