

Helping College Students Cope: Identifying Predictors of Active Coping in Different Stressful Situations

Ming-hui Li

Assistant Professor, St. John's University, Department of Human Services and Counseling,
Queens, NY, lim@stjohns.edu

Abstract

College students may encounter stressful situations related to relationships, work, and academia. The tendency to actively cope (active coping) plays a significant role in the process of adapting to stressful situations. This study explored predictors of active coping in three situations. Participants were 219 Taiwanese college students (192 females and 27 males). The most effective predictor of active coping in relationship-related situations and work-related situations were resilience ($\beta = .38$) and secure attachment ($\beta = .50$), respectively. No effective predictor of active coping was identified in the academic-related stressful situations. The article ends by offering implications of this study's findings.

Introduction

College students may experience stressful situations associated with interpersonal relationships, work, and academia (Bolger, 1997; Kariv & Heiman, 2005; Chang, 1998; Lounsbury, Huffstetler, Leong, & Gibson, 2005; Moller, McCarthy, & Fouladi, 2002; Rao, 2000). Not all college students adapt at the same rate and with the same outcome. Researchers have explored the process by which people adapt to stressful situations (Banyard & Cantor, 2004; Kumpfer, 1999; Rutter, 1987; Woodhead, 1995; Wyman, Sandler, Wolchik, & Nelson, 2000). Findings suggest "active coping," specifically, plays a significant role in the process of adapting to stressful situations (Kumpfer, 1999). Active coping affects individuals' causal attributions and help-seeking behaviors in the process of adapting to stressful situations (Pizzolato, 2004), and therefore active coping is related to positive adaptation to college life (Feenstra, Banyard, Rines, & Hopkins, 2001). Active coping in this study is defined as people's coping style that is characterized by solving problems, seeking social support, making some positive meaning out of experiences, attempting to alter stressful situations, and non-avoidance.

Active coping has been extensively studied and a variety of factors such as optimism, burnout, sense of mastery, previous coping experiences, threat appraisal, climate, occupational status, and power differential have been found to determine this coping style (Armstrong-Stassen, 1994; Bernier, 1998; Brennan, Schutte, & Moos, 2006; Chung, Langenbucher, Labouvie, Pandina, & Moos, 2001; Malamut & Offermann, 2001). Although determinants of active coping have been studied in the university setting (McGown & Fraser, 1995; Zeidner, 1994), less work has been devoted to explore determinants of college students' active coping across different stressful situations. This study seeks to fill that gap in the literature. In particular, this study explored determinants of college students' active coping in stressful situations related to interpersonal relationships, work, and academia. In this study, interpersonal relational situations that directly impact individuals, such as arguments with boy- or girlfriends, were categorized as high-stress relational situations. On the other hand, interpersonal relational situations that indirectly impact individuals, such as worry about arguments between other classmates, were considered as low-stress relational situations.

The purpose of this study was to identify the perception-related traits that can effectively influence college students to actively cope with three categories of stressful situation: situations related to

interpersonal relationships, work, and academia. In this study, three perception-related traits—the trait of resilience, secure attachment, and self-efficacy—were applied to predict active coping in the three categories of stressful situations. The rationale for using perception-related traits to predict active coping will be discussed in the *Theoretical Framework* section.

This study's findings may better inform college counselors and administrators so they can help their students cope more effectively with college life. For example, one previous study (Myers & Vetere, 2002) noted that students with a secure attachment pattern reported having more social and emotional resources, resources which are related to active coping. Their study implied that students with secure attachment patterns tend to actively cope with stressful situations. If this study's findings also show that secure attachment is predictive of active coping, then college counselors and administrators can more confidently address their students' levels of secure attachment in order to help them actively cope with college stressors and adapt better to college life. This study further contributes to the field of college counseling by studying major collegiate stressful situations in the same study. As mentioned earlier, although scholars such as McGown and Fraser (1995) explored determinants of active coping in college students, few researchers have explored the stability of determinants of active coping in such students across major college-related stressful situations.

Variables Involved in the Framework

Active coping is defined in this study as people's coping style that is characterized by solving problems, seeking social support, making some positive meaning out of experiences, attempting to alter stressful situations, and non-avoidance.

The trait of resilience has been defined as "personality characteristics that moderates the negative effects of stress and promotes adaptation" (Wagnild & Young, 1993, p. 165). Previous studies indicated that resilient individuals have a positive view of stressful situations and they tend to actively cope with stressful situations (Banyard & Cantor, 2004; Parr, Montgomery, & DeBell, 1998; Quinton, Pickles, Maughan, & Butter, 1993; Rutter, Quinton, & Hill, 1990). These studies implied that the trait of resilience influences people to actively cope with stressful situations. This study examined this hypothesis by exploring the extent to which the trait of resilience can influence people to cope actively with different types of stressful situations.

Secure attachment refers to a cognitive schema that guides individuals to believe it is relatively easy to form close relationships with others and to feel at ease in relying on others (Hazan & Shaver, 1987). Secure attachment is a trait that leads individuals to form positive perceptions about themselves and the world (Bowlby, 1969). This trait is relation-related; it develops in social interactions and it influences children's later social lives (Bowlby, 1969). Kumpfer (1999) proposed that secure attachment experiences influence stress-coping process. Her proposal has been supported by Banyard and Cantor's (2004) finding that college students with secure attachment tend to adapt well to college stressors. Although the effect of secure attachment on active coping seems to be positive in relation-related stressful situations, the extent to which it influences active coping in other types of stressful situations has not been well explored. This study addressed this issue.

Self-efficacy refers to people's beliefs in having control over their own functioning and over what occurs in the environment (Bandura, 1977). Self-efficacy has been considered a stable trait that leads individuals to believe that they are able to manage stressful situations in their lives (Sherer & Maddux, 1982). Bandura believes that self-efficacy involves behavioral tasks and is a performance-related belief; therefore, it is expected to lead individuals to actively cope with performance-related stressful situations. However, one cannot afford to rule out the possibility that self-efficacy determines active coping in non-performance-related stressful situations. This study explored the effect of self-efficacy on active coping in different types of stressful situations.

Theoretical Framework

Kumpfer (1999) proposed that individuals experience a person-environment transactional process when they encounter stressful situations, and she further suggested that this process is influenced by environmental contexts and personal resiliency factors. Major factors in the person-environment transactional process include (a) perception, (b) reframing, (c) changing environments, and (d) active coping. *Perception* refers to the way that people view a stressful situation. For example, some straight-A students view a hard final examination as a threat to their excellent academic history. *Reframing* refers to people's tendency to change the meaning of a stressful situation. For example, instead of calling themselves a victim of a relational break-up, some people call themselves a survivor. *Changing environments* refers to people's efforts to change something in their surrounding. For example, some people deliberately do grocery-shopping at a different supermarket when they want to make a change in life. *Active coping* refers to people's coping strategies that are characterized by solving problems, seeking social support, making some positive meaning out of experiences, and attempting to alter stressful situations. For example, some people voluntarily seek for professional help in order to deal with test anxiety.

If *reframing* and *changing the environment* are seen as two forms of active coping, then the person-environment transactional process referenced in Kumpfer's study can be regarded as the interaction between perception and active coping. Therefore, in exploring the interaction of factors in the person-environment transactional process, the author focused on examining the relationship between perception and active coping. This examination focused on relationship-related, work-related, and academia-related stressful situations because they are three major types of stressful situations faced by college students (Bolger, 1997; Kariv & Heiman, 2005; Chang, 1998; Lounsbury, Huffstetler, Leong, & Gibson, 2005; Moller, McCarthy, & Fouladi, 2002; Rao, 2000).

Lazarus (1999) stated that individuals' beliefs about self and the world may influence coping process. It appears that factors related to individuals' beliefs about self and the world can influence their perceptions of stressful situations. Since the primary issue addressed in the study is the relationship between perception and active coping under stressful situations, the author assumed that traits that influence individuals' perceptions of stressful situations can influence individuals to cope actively with stressful situations. Based on that assumption, the author hypothesized that perception-related traits such as the trait of resilience, secure attachment, and self-efficacy can predict active coping. The hypothesis was then tested in three different types of stressful situations related to relationships, work, and academia. Specifically, the following hypotheses were tested.

- Hypothesis 1: There is a significant relationship between active coping and a linear combination of trait of resilience, secure attachment, and self-efficacy in low stress situations associated with relationships.
- Hypothesis 2: There is a significant relationship between active coping and a linear combination of trait of resilience, secure attachment, and self-efficacy in high stress situations associated with relationships.
- Hypothesis 3: There is a significant relationship between active coping and a linear combination of trait of resilience, secure attachment, and self-efficacy in stressful situations associated with work.
- Hypothesis 4: There is a significant relationship between active coping and a linear combination of trait of resilience, secure attachment, and self-efficacy in stressful situations associated with academia.

Methods

Participants

Two hundred and nineteen college students (192 females and 27 males) were recruited from a college in Taiwan. Participants' age ranged from 18 to 23 years old. The mean age of this sample was 20.1. All participants were Han Chinese, the major ethnic group in Taiwan.

Instruments

Data were collected using a questionnaire that consists of six sections: demographic information, the Coping Strategy Indicator (CSI: Amirkhan, 1990a), the Resilience Scale (RS: Wagnild & Young, 1993), the Revised Adult Attachment Scale (AAS-Revised: Collins, 1996), the Chinese Adaptation of General Self-Efficacy Scale (GSS: Zhang & Schwarzer, 1995), and the Student-Life Stress Inventory (Gadzella, 1991). All of the instruments have been used to study college students and have demonstrated adequate validity (construct or concurrent validity) and reliability (Cronbach's coefficient alpha range from .76 to .93).

The Coping Strategies Indicator (CSI).

The Coping Strategy Indicator (Amirkhan, 1990a) is a 33-item, three-point Likert-type scale. The CSI has three subscales: problem solving, seeking social support, and avoidance. Amirkhan (1990a) reported good internal consistency for the three subscales of the CSI. The Cronbach's alpha coefficients for the problem solving subscale, seeking social support subscale, and avoidance subscale were found to be .89, .93, and .84, respectively. Amirkhan found a test-retest reliability of .82 for the whole scale. He also demonstrated a good validity of the whole scale. Amirkhan (1990a) reported significant correlations between some items of the CSI and those of the Way of Coping Checklist (WCC; Vitaliano, Pusso, Carr, Maiuro, & Becker, 1985), showing evidence of validity of the CSI. In 1994, Amirkhan administered the CSI to three samples consisting of different types of people and different types of stressors. Results showed significant difference on every scale, in predicted directions. That study further confirms the validity of the CSI.

The Resilience Scale (RS).

The Resilience Scale (Wagnild & Young, 1993) is a 7-point Likert-type scale and it contains 25 items. The internal consistency of the RS has been found to range from .76 to .91 in a number of studies (Cooley, 1990; Killien & Jarrett, 1993; Klass, 1989; Wagnild & Young, 1993). Test-retest reliability of this scale was found to be between .67 and .84 (Killien & Jarrett, 1993). The concurrent validity of this scale was demonstrated by Wagnild and Young in 1993 by significantly correlating trait of resilience with adaptation indicators such as life satisfaction, morale, depression, and physical health.

The Revised Adult Attachment Scale (AAS-Revised).

The Revised Adult Attachment Scale (Collins, 1996) is an 18-item, 5-point Likert-type instrument. This scale includes three subscales, namely anxiety, depend, and close. The Cronbach's alphas for the anxiety, depend, and close subscales of the AAS-Revised were .85, .78, and .77, respectively (Collins). The AAS-Revised is based on the original Adult Attachment Scale (Collins & Read, 1990). Collins and Read demonstrated the construct validity of the AAS by significantly linking the AAS dimensions (Depend, Anxiety, and Close) with indicators of attachment styles (individuals' beliefs about self and others).

The Chinese Adaptation of the General Self-Efficacy Scale (GSS).

The Chinese Adaptation of the General Self-Efficacy Scale (Zhang & Schwarzer, 1995) is a 4-point Likert-type scale that consists of ten items. The GSS was originally developed in German. Zhang and Schwarzer (1995) translated the scale into Chinese and tested its validity and reliability using a sample of 293 Chinese college students. Based on the test results, an internal consistency of $\alpha = .91$ and a test-retest reliability of $.71$ were found. Criterion-related validity of the GSS has been demonstrated by correlational studies. The GSS has been found positively correlated with favorable emotions, dispositional optimism, and work satisfaction; and negatively correlated with depression, anxiety, stress, burnout, and health complaints (Free University of Berlin, 2003).

The Student-Life Stress Inventory (SSI).

The Student-Life Stress Inventory (Gadzella, 1991) is a self-report, 5-point Likert-type instrument that includes 51 items. Gadzella and Baloglu (2001) reported an alpha value of $.92$ for the whole inventory. In 1993, Gadzella and Guthrie reported a test-retest reliability of $.78$ for the whole inventory. Researchers demonstrated the concurrent validity of this inventory (Gadzella, 1994; Gadzella & Baloglu, 2001). In exploring validity of the SSI, Gadzella, Masten, and Stacks (1998) found that the SSI was significantly correlated with deep processing, elaborative processing, methodical study, and text anxiety.

All of these instruments except the Chinese Adaptation of General Self-efficacy Scale were translated by the author of this paper from English into Chinese. Two bilingual psychology professors and four bilingual doctoral students examined the translated instruments. A bilingual undergraduate student, who was blind to the original English instruments, back-translated the Chinese versions into English. The original instruments and the back-translated instruments were compared with each other. These two versions were very close in meaning, indicating correct language transference.

Procedure of Collecting Data

The author went to different classes to administer the questionnaire to participants. Each class teacher introduced the author to participants and briefly explained that the author was inviting them to volunteer for a study regarding adaptation to college life. After securing informed consent, the author administered the questionnaires to each class of students.

The author asked participants to respond to all instruments on the questionnaire except the Coping Strategy Indicator based on their general life experiences in the past six months. In addition, the author asked participants to identify and write about a stressful situation—an important event that occurred within the past six months. Then the author asked participants to respond to the Coping Strategy Indicator based on their experiences coping with their identified stressful situations during the two days following after that stressful situation.

Three participants disclosed that they could not think of any stressful situation. The author encouraged them to spend a few more minutes to search for such situation. Also the author told them that the identified stressful situation is a crucial part of this study. After the encouragement, two of the three participants successfully identified a stressful situation and the third one chose to quit the questionnaire and quietly left the room.

The author asked participants to self-categorize their identified stressful situations by checking an appropriate box on the questionnaire. The available categories were (a) stressful situations related to relationships, (b) work, (c) academics, (d) money, (e) health, and (f) others. Prior to analyzing data, the author double checked the correspondence between participants' self-categorizations and their written descriptions of the stressful situations. Participants whose questionnaire self-categorizations and descriptions did not match were removed from the

database. As expected, however, most participants' identified stressful situations were related to relationships, work, and academia.

Based on participants' identified stressful situations, the author categorized participants into four groups: low stress relationships ($n = 48$, 22%), high stress relationships ($n = 64$, 29%), work ($n = 44$, 20%), and academia ($n = 63$, 29%). As mentioned earlier, a low stress relational situation was defined as a relational situation that indirectly impacts individuals, such as worry about arguments between two classmates. By contrast, a high stress relational situation refers to a relational situation that directly impacts individuals, such as arguments with boy- or girlfriends.

The rationale for dividing participants who encountered relational situations into two different groups was to keep relatively equal numbers of members among all groups. As can be observed, the total number of participants who encountered relational situations ($n = 112$) was approximately 2.5 times as many as that of participants who encountered work situations ($n = 44$). In order to keep relatively equal numbers of members among all groups, the author divided the relational group into two groups. The reason for keeping similar numbers of members in different groups was to meet the requirement of ANOVA. Once this requirement had been met, the ANOVA procedures could then be applied to examine the effect of group type on active coping (see *Results*).

Data Analysis

The research design of this study was a correlational design with three independent (predictor) variables and one dependent variable. The three independent variables were traits of resilience, secure attachment, and self-efficacy. The dependent variable was active coping. This research design consisted of four separate multiple regression procedures that were used to test the proposed framework in four types of stressful situations. The four multiple regression procedures were conducted by using SPSS.

Correlations among predictor variables and between predictor variables and the dependent variable were examined in order to meet the requirements of multiple regression. The correlation coefficients are presented in Table 1. The multivariate outlier was removed so it did not impact the accuracy of data analysis. The criteria used to screen the outlier were (1) a Cook's distance greater than 1, and (2) a standardized residual greater than 3. After the removal of the multivariate outlier, all cases' leverage values were lower than 5 and the QQ plot displayed in the SPSS output showed a straight line. These two findings indicated that the dataset of this study met the requirement of multivariate normality and so it can be analyzed by multivariate statistical procedures.

In order to examine the effects of demographic variables on the independent and the dependent variables, one-way ANOVA procedures were conducted. In addition, two-way ANOVA procedures were conducted to examine effects of interaction between demographic variables and the independent variables on the dependent variable.

Results

Results showed that the translated instruments were highly reliable. The Cronbach's coefficient alphas for the CSI, the RS, the AAS-Revised, the Chinese Adaptation of GSS, and the SSI were .83, .90, .74, .87, and .90, respectively.

Results of one-way ANOVA analyses showed that none of the demographic variables—gender, age, hours of part-time work, stress type, and stress level—significantly impacted the dependent variable of this study—active coping. In addition, results from two-way ANOVA analyses showed that there was no interaction between any demographic variable and any independent variable in impacting active coping.

Nevertheless, findings from one-way ANOVA analyses showed that gender significantly impacted two of the three independent variables and that stress levels significantly impacted all three independent variables. Specifically, gender effect was found to be significant in trait of resilience and self-efficacy. Males reported significantly higher levels of trait of resilience [$F(1, 217) = 5.82, p < .05$] and self-efficacy [$F(1, 217) = 17.55, p < .05$] than female did (male resilience: $M = 119.07, SD = 21.79$; female resilience: $M = 109.44, SD = 19.09$; male self-efficacy: $M = 28.67, SD = 5.02$; female self-efficacy: $M = 24.56, SD = 4.74$). Regarding effects of stress levels on independent variables, individuals experienced lower levels of stress demonstrated higher levels of trait of resilience [$F(1, 217) = 18.90, p < .05$], secure attachment [$F(1, 217) = 25.95, p < .05$], and self-efficacy [$F(1, 217) = 9.03, p < .05$], than did their more stressed counterparts.

Table 1

Correlation Matrix of Variables

Variables	1	2	3	4	5
(N = 219)					
1. Active Coping ($M = 73.24, SD = 9.63$)	-	.30**	.20**	.19**	-.10
2. Resilience ($M = 110.63, SD = 19.65$)		-	.10	.57**	-.35**
3. Attachment ($M = 54.97, SD = 9.03$)			-	.10	-.37**
4. Self-efficacy ($M = 25.06, SD = 4.95$)				-	-.22**
5. Stress ($M = 134.14, SD = 21.55$)					-

** $P < .01$

Demographic variables did not significantly impact the relationship between the independent variables (predictors) and active coping because there was neither an effect from any of the demographic variables nor an effect from the interaction between any demographic variable and any independent variable. Therefore, the effects of the independent variables on active coping can be obtained by simply interpreting results from multiple regression analyses applied to the four types of stressful situations.

In low stress situations associated with relationships, the trait of resilience was the only effective predictor of active coping, $F(1, 46) = 7.741, p < .05$. The trait of resilience explained 14.5% of variance in active coping ($\beta = .38$). In addition, the trait of resilience was significantly correlated with self-efficacy ($r = .56$). High resilient individuals, as opposed to their low resilient counterparts, were more likely to show self-efficacy and tended to become active copers in relational situations that are less stressful.

In high stress situations associated with relationships, the trait of resilience was the only effective predictor of active coping, $F(1, 62) = 4.109, p < .05$. The trait of resilience explained 6.2% of variance in active coping ($\beta = .25$). The trait of resilience was positively significantly correlated with self-efficacy ($r = .60$), but negatively significantly correlated with stress ($r = -.53$). It appears that high resilient individuals, as opposed to their low resilient counterparts, were more likely to

actively cope with high stress relational situations. Also, high resilient individuals showed higher levels of self-efficacy and tended not to be impacted by high stress relational situations.

In work-related stressful situations, secure attachment was the sole effective predictor of active coping, $F(1, 42) = 13.683, p < .05$. Secure attachment contributed to 25% of variance in active coping ($\beta = .50$). It appears that, in work-related stressful situations, those who presented higher levels of secure attachment, when compared with those who showed less secure attachment, were more likely to actively cope with the situations.

In stressful situations associated with academia, none of the predictors in this model proved to be an effective predictor of active coping, $F(3, 59) = 1.214, p > .05$. Results of regression analyses in different stress types are reported in Table 2.

Table 2

Summary of Regression Analyses for Variables Predicting Active Coping in Stressful Situations Associated with Relation, Work, and Academia

IVs	β	R^2	F	p
Relationships (low stress)				
		.144	7.741*	.008*
Trait of Resilience	.380*			
Secure Attachment	.135			
Self-efficacy	-.083			
Relationships (high stress)				
		.062	4.109*	.047*
Trait of Resilience	.249*			
Secure Attachment	.126			
Self-efficacy	.097			
Work				
		.246	13.683*	.001*
Trait of Resilience	.246			
Secure Attachment	.496*			
Self-efficacy	.074			
Academia				
		.058	1.214	.313
Trait of Resilience	.186			
Secure Attachment	.156			
Self-efficacy	-.020			

* $p < .05$

Additional Analyses

The *group* variable (i.e., stress type) was dummy coded and then entered into the four above-mentioned multiple regression procedures. After this additional variable had been entered, the results of the multiple regression procedures were not significantly changed. The only effective predictor of active coping in the two relationship-related groups was still the trait of resilience. Secure attachment remained the only effective predictor of active coping in work-related stressful

situations. And no effective predictor was found in academia-related stressful situations. The variable *stress type* contributed to extra 2%, -4%, 6%, and 0% of variance in active coping in situations related to low-stress relationship, high-stress relationship, work, and academia, respectively. These findings showed that this variable did not significantly impact active coping.

Self-efficacy was found to be closely related to the trait of resilience in all four types of stressful situations and in general situations (i.e., combining all four types of stressful situations). The correlation coefficients for self-efficacy and trait of resilience in low-stress relational, high-stress relational, work, academic, and general situations were .57, .60, .67, .44, and .57, respectively. In addition, self-efficacy, just like trait of resilience, could predict active coping in general situations. These findings seemed to support Kumpfer's (1999) proposal that self-efficacy is one of the factors that contributes to the development of resilience. If Kumpfer's notion is indeed, accurate, then it is possible that self-efficacy influences the trait of resilience, which in turn influences active coping. Furthermore, the trait of resilience may mediate between self-efficacy and active coping.

In order to examine the hypothesis that the trait of resilience mediates between self-efficacy and active coping, this study applied Green, Salkind, and Akey's (2000) method of testing mediator variables. If the trait of resilience was the mediator, it should dominate self-efficacy when these two traits were applied together to predict active coping. Simultaneously, the effect of self-efficacy on active coping should shrink to nearly zero. The hypothesis would be supported if the trait of resilience could predict active coping while the self-efficacy couldn't. The test results reported in Table 3 indicates that the hypothesis was supported. The trait of resilience mediated between self-efficacy and active coping.

Table 3

Summary of Regression Analyses for Trait Resilience and Self-Efficacy Predicting Active Coping in General Stressful Situations (Combining All Four Types of Stressful Situations)

IVs	β	R^2	F	p
General Stressful Situations		.188	10.473*	< .001*
Trait of Resilience	.283*			
Self-efficacy	.024			

* $p < .05$

Discussion

Trait of Resilience as Predictor of Active Coping in Stressful Situations Associated with Relationships

In both low and high stress situations associated with relationships, the trait of resilience was the only effective predictor of active coping. It appears that the trait of resilience effectively predicted active coping in stressful situations associated with relationships, regardless of the level of stress. This finding is consistent with previous studies indicating that resilient individuals tend to use active coping strategies to manage stressful situations (Banyard & Cantor, 2004; Quinton et al., 1993; Rutter et al., 1990).

Resilience has been considered a multidimensional trait instead of a uni-dimensional one. Warschaw and Barlow (1995) suggested that resilience as a trait includes concepts such as an unambivalent commitment to life, self-confidence, adaptability, resourcefulness, willingness to risk, acceptance of personal responsibility, perspective, openness to new ideas, willingness to be

proactive, and attentiveness. Similarly, Wagnild and Young (1993) conceptualized the trait of resilience from five perspectives:

(1) equanimity, a balanced perspective of one's life and experiences...; (2) perseverance, the act of persistence despite adversity or discouragement...; (3) self-reliance, a belief in oneself and one's capabilities...; (4) meaningfulness, the realization that life has a purpose and the valuation of one's contributions...; and (5) existential aloneness, the realization that each person's life path is unique.... (pp. 167-168).

A relationship-related stressful situation is usually composed of both relationship-related and non-relationship-related factors. In some cases, a relationship-related stressful situation can be multidimensional. People who experience a relational breakup may have to deal with a declined romantic relationship, a low self-esteem, and a less meaningful life. Therefore, a multidimensional trait such as the trait of resilience becomes more effective than a uni-dimensional trait like secure attachment in facilitating individuals to cope actively with relationship-related stressful situations. For example, when individuals ask someone out for a date and get rejected, they may feel frustrated because the person shows no interest in forming a romantic relationship with them. In order to deal with such a situation, these individuals may rely less on secure attachment and more on two components of the trait of resilience: self-reliance (a belief in oneself and one's capabilities) and equanimity (a balanced perspective of one's life and experience).

Secure Attachment as Predictor of Active Coping in Work-Related Stressful Situations

In work-related stressful situations, secure attachment was the only effective predictor of active coping. This finding is consistent with those of previous studies. For example, Vocaturo (1999) reported that securely attached college students tended to use a more problem-focused coping style. Similarly, Myers and Vetere (2002) noted that students with secure attachment pattern reported having more social and emotional resources.

The finding that secure attachment is an effective predictor of active coping in work-related situations indicates that a relation-related trait (secure attachment) plays a vital role in influencing individuals to cope actively with work-related stress. Here, it appears that individuals are likely to cope actively when they perceive that they are able to engage in positive social interactions with other people involved in their work. Together with the finding that a performance-related trait (self-efficacy) did not predict active coping in work-related stressful situations, this finding seems to indicate that participants' willingness to work hard was not adequate enough to drive them to actively cope with work-related stressful situations when they did not feel socially secure in the workplace.

No Effective Predictor of Active Coping in Academia-Related Stressful Situations

In academia-related stressful situations, no effective predictor was found. This finding indicated that perception-related traits did not play a vital role in influencing participants to actively cope with academia-related stressful situations, and thus, major factors other than perception-related traits may be used to explain active coping in academia-related stressful situations. In order to examine the effect of possible situational factors on active coping, two variables in the demographic data were applied to predict active coping in academic-related stressful situations. These two variables were participants' (1) GPA of the previous semester and (2) hours spent on a part-time job. Results of simple regression procedures showed that neither of these two variables impacted active coping. An examination of this group's participants' levels of stress showed that these students had lower-than-average levels of stress (mean of this group = 124.68, mean of the whole sample = 134.14), indicating that they might not consider academic problems a serious issue. If they did not consider their problems to be serious, they might not have thought about how to actively cope with those problems. As a consequence, they might not have activated the cognitive appraisal process that involves perception-related traits such as resilience and secure attachment.

Effect of Self-efficacy on Active Coping was Mediated by Trait of Resilience

The test results reported in Table 3 indicates that the trait of resilience mediated between self-efficacy and active coping. This finding suggests that individuals' self-efficacy would least affect active coping if they do not have adequate level of trait of resilience, and so if individuals lack trait of resilience, their self-efficacy may not significantly influence their tendency to cope actively. On the other hand, when individuals do have adequate levels of trait of resilience, the more they show self-efficacy, and the more their active coping can be influenced by self-efficacy.

This study has three limitations. First, the sample used in this study was a convenience sample, which may not represent the whole population (Taiwanese college students). Second, data collection was based on participants' self-report, which might include clients' subjective perspectives. Third, correlation studies such as this one do not provide information regarding causes and effects between variables. Because of these limitations, the generalization of the findings of this study to the general college student population may be limited.

Conclusion

This study explored predictors of active coping in stressful situations related to low-stress relationships, high-stress relationships, work, and academia in order to examine stability of these predictors across different stressful situations. A low stress relational situation was defined as a relational situation that indirectly impact individuals (e.g., worry about arguments between two classmates). On the other hand, a high stress relational situation referred to a relational situation that directly impacted individuals.

Findings showed that these predictors were not stable across situations. The most effective predictors of active coping in relationship-related and work-related stressful situations were the traits of resilience and secure attachment, respectively. In academia-related stressful situations, no effective predictor of active coping was found. These findings imply that different perception-related traits influence people' active coping in different stressful situations. The effective predictor(s) in each stressful situation may represent the most salient perception-related trait(s) in that specific situation. According to Jones and McEwen (2000), traits become most salient in a specific situation when individuals (1) can recognize that they own these traits (internal awareness) and (2) are aware of the consequences caused by the disappearance of these traits in that situation (external scrutiny). These most salient traits thus influence individuals to engage in self-to-standard comparison and causal attribution, and ultimately determine individuals' coping styles (Pizzolato, 2004). However, further studies based on an empirical design may confirm the implication that the most salient personal traits in a given stressful situation influence the person to actively cope with the stressful situation.

Therefore, counselors and administrators may help college students to cope better by enhancing the most salient traits in them in a given situation. For example, counselors and administrators may create opportunities for students to enhance their secure attachment and so cope better in work-related stressful situations. Moler, McCarthy, and Fouladi (2002) suggested that students can enhance their secure attachment by participating in counseling groups or organized peer-based support groups that encourage them to positively interact with others. In addition, counselors and administrators may help students to strengthen their resilience so as to actively cope with relationship-related stressful situations. Since resilience is developed in the process of coping with day-to-day developmentally appropriate stressful situations (Masten, 2001), it can be enhanced by connecting and integrating past positive and negative coping experiences (Li, in press).

References

- Amirkhan, J. H. (1990a). A factor analytically derived measure of coping: The coping Strategy indicator. *Journal of Personality and Social Psychology*, *59*, 1066-1074.
- Amirkhan, J. H. (1994). Criterion validity of a coping measure. *Journal of Personality Assessment*, *62*, 242-261.
- Armstrong-Stassen, M. (1994). Coping with transition: A study of layoff survivors. *Journal of Organizational Behavior*, *15*, 597-621.
- Banyard, V. L., & Cantor, E. N. (2004). Adjustment to college among trauma survivors: An exploratory study of resilience. *Journal of College Student Development*, *45*, 207-221.
- Bernier, D. (1998). A study of *coping*: Successful recovery from severe burnout and other reactions to severe work-related stress. *Work & Stress*, *12*, 50-65.
- Bolger, M. A. (1997). An exploration of college student stress (Doctoral dissertation, The Pennsylvania State University, 1997), *Dissertation Abstracts International*, *58*, 5A, 1597.
- Bowlby, J. (1969). *Attachment and loss: Vol 1, attachment*. New York: Basic Books.
- Brennan, P. L., Schutte, K. K., & Moos, R. H. (2006). Long-term patterns and predictors of successful stressor resolution in later life. *International Journal of Stress Management*, *13*, 253-272.
- Chang, E. C. (1998). Hope, problem-solving ability, and coping in a college student population: some implications for theory and practice. *Journal of Clinical Psychology*, *54*, 953-962.
- Chung, T., Langenbucher, J., Labouvie, E., Pandina, R. J., & Moos, R. (2001). Changes in alcoholic patients' *coping* responses predict 12-month treatment outcomes. *Journal of Consulting and Clinical Psychology*, *69*, 92-100.
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, *71*, 810- 832.
- Collins, N. L., & Reed, S. J. (1990). Adult attachment, working models, and relationship quality in dating couple. *Journal of Personality and Social Psychology*, *58*, 644-663.
- Cooley, L. L. (1990). *Exercise, hardiness and the stress-illness relationship*. Unpublished Master's thesis. University of Washington, Seattle, WA.
- Feenstra, J. S., Banyard, V. L., Rines, E. N., & Hopkins, K. R. (2001). First-year students' adaptation to college: The role of family variables and individual coping. *Journal of College Student Development*, *42*, 106-113.
- Free University of Berlin (2003). The general self-efficacy scale. Retrieved April, 12, 2003, from <http://userpage.fu-berlin.de/~health/engscal.htm>
- Gadzella, B. M. (1991). *Student-life Stress Inventory*. Library of Congress, Copyright.

- Gadzella, B. M. (1994). Student-life stress inventory: Identification of and reactions to stressors. *Psychological Reports, 74*, 395-402.
- Gadzella, B. M., & Baloglu, M. (2001). Confirmatory factor analysis and internal Consistency of the Student-life Stress Inventory. *Journal of Instructional Psychology, 28*, 84-89.
- Gadzella, B. M., & Guthrie, D. (1993). Analysis of a stress inventory. *Proceedings of the Texas Academy of Science, 96th Annual Meeting*, University of North Texas, Denton, Texas.
- Gadzella, B. M., Masten, W. G., & Stacks, J. (1998). Students' stress and their learning strategies, test anxiety, and attributions. *College Student Journal, 32*, 416-422.
- Green, S. B., Salkind, N. J., & Akey, T. M. (2000). *Using SPSS for windows: Analyzing and understanding data* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511-524.
- Jones, S. R., & McEwen, M. K. (2000). A conceptual model of multiple dimensions of identity. *Journal of College Student Development, 41*, 405-414.
- Kariv, D., & Heiman, T. (2005). Task-oriented versus emotion-oriented coping strategies: The case of college students. *College Student Journal, 39*, 72-84.
- Killien, M., & Jarrett, M. E. (1993). [Return to work: Impact on postpartum mothers health]. Unpublished raw data.
- Klass, M. C. (1989). *Effectiveness of hardiness and sleep s resources against stress-related illness*. Unpublished Master's thesis. University of Washington, Seattle, WA.
- Kobasa, S. C. (1987). Stress responses and personality. In R. C. Barnett, L. Biener & G. K. Bauch (Eds.), *Gender and Stress* (pp. 308-329). New York: The Free Press.
- Kumpfer, L. K. (1999). Factors and processes contributing to resilience: The resilience framework. In M. D. Glantz & J. L. Johnson (Eds), *Resilience and development: Positive life adaptations* (pp. 179-224). New York: Academic/Plenum.
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York: Springer.
- Li, M. H. (in press). Relationships among stress coping, secure attachment, and the trait of resilience among Taiwanese college students. *College Student Journal, 41*.
- Lounsbury, J. W., Huffstetler, B. C., Leong, F. T., & Gibson, L. W. (2005). Sense of identity and collegiate academic achievement. *Journal of College Student Development, 46*, 501-514.
- Malamut, A. B., & Offermann, L. R. (2001). Coping with sexual harassment: Personal, environmental, and cognitive determinants. *Journal of Applied Psychology, 86*(6), 1152-1166.
- Masten, A. S. (2001). Ordinary Magic. *American Psychologist, 56*, 227-238.

- McGown, A., & Fraser, G. (1995). The effect of sociodemographic variables on the use of active and avoidance coping strategies. *Psychological Studies, 40*, 157-169.
- Moller, N. P., McCarthy, C. J., & Fouladi, R. T. (2002). Earned attachment security: Its relationship to coping resources and stress symptoms among college students following relationship breakup. *Journal of College Student Development, 43*, 213-230.
- Myers, L. B., & Vetere, A. (2002). Adult romantic attachment styles and health-related measures. *Psychology, Health and Medicine, 7*(2), 175-180.
- Parr, D. G., Montgomery, M., & DeBell, C. (1998). Flow theory as a model for enhancing student resilience. *Professional School Counseling, 1*(5), 26-31.
- Pizzolato, J. E. (2004). Coping with conflict: Self-Authorship, coping, and adaptation to college in first-year, high-risk students. *Journal of College Student Development, 45*, 425-442.
- Quinton, D., Pickles, A., Maughan, B., & Butter, M. (1993). Partners, peers and pathways: Assortative pairing and continuities in conduct disorder. *Development and Psychopathology, 5*, 763-783.
- Rao, K. (2000). Appraisal of stress and coping behaviour in college students. *Journal of the Indian Academy of Applied Psychology, 26* (1-2), 5-13.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*, 316-331.
- Rutter, M., Quinton, D., & Hill, J. (1990). Adult outcomes of institution-reared children: Males and females compared. In L. N. Robins & M. Rutter (Eds.), *Straight and devious pathways from childhood to adulthood* (pp. 135-157). Cambridge, UK: Cambridge University Press.
- Sherer, M., & Maddux, J. E. (1982). The self-efficacy scale: Construction and validation. *Psychological Report, 51*, 663-671.
- Vitaliano, P. P., Pusso, J., Carr, J. E., Maiuro, R. D., & Becker, J. (1985). Ways of Coping Checklist: Revision and psychometric properties. *Multivariate Behavioral Research, 20*, 3-26.
- Vocaturro, L. C. (1999). Predictors of coping styles in response to infidelity among college students. (Doctoral dissertation, Rutgers University at Brunswick, 1999). Dissertation Abstracts International, 60(11B), 5796.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement, 1*, 165-178.
- Warschaw, T. A., & Barlow, D. (1995). *Resiliency: How to bounce faster, stronger, smarter*. New York: Master Media.
- Woodhead, M. (1995). Disturbing behaviour in young children. In P. Barnes (Ed.), *Personal, social and emotional development of children* (pp. 41-82). Oxford, UK: Blackwell Publishers Ltd in association with The Open University.

- Wyman, P. A., Sandler, I., Wolchik, S., & Nelson, K. (2000). Resilience as cumulative competence promotion and stress protection: Theory and intervention. In D. Cicchetti, J. Rappaport, I. Sandler, & P. R. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp. 133-184). Washington, DC: WLA Press.
- Zeidner, M. (1994). Personal and contextual determinants of coping and anxiety in an evaluative situation: A prospective study. *Personality and Individual Differences, 16*, 899-918.
- Zhang, J. X., & Schwarzer, R. (1995). Measuring optimistic self-beliefs: A Chinese adaptation of the General Self-Efficacy Scale. *Psychologia, 38* (3), 174-181.