

SEARCHING FOR JOBS AMID DIFFICULT ECONOMIC TIMES IN CHINA:
THE ROLE OF COPING AND PERCEIVED BARRIERS IN PSYCHOLOGICAL
ADJUSTMENT AND WELL-BEING

A Dissertation

presented to

the Faculty of the Graduate School

at the University of Missouri

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

YUHONG HE

Dr. P. Paul Heppner, Dissertation Supervisor

December 2011

© Copyright by Yuhong He 2011

All Rights Reserved

The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

SEARCHING FOR JOBS AMID DIFFICULT ECONOMIC TIMES IN CHINA:
THE ROLE OF COPING AND PERCEIVED BARRIERS IN
PSYCHOLOGICAL ADJUSTMENT AND WELL-BEING

presented by Yuhong He,

a candidate for the degree of Doctor of Philosophy in Counseling Psychology,

and hereby certify that, in their opinion, it is worthy of acceptance.

P. Paul Heppner, Ph.D.

Department of Educational, School, and Counseling Psychology

Mary J. Heppner, Ph.D.

Department of Educational, School, and Counseling Psychology

Li-Fei Wang, Ph.D.

Department of Educational, School, and Counseling Psychology

Motoko Akiba, Ph.D.

Department of Educational Leadership and Policy Analysis

ACKNOWLEDGEMENTS

As I reflect upon my journey in completing this dissertation, I am amazed by the number of people who have been involved and helpful in the process.

First, and foremost, I would like to thank my mother Lingzhen Chen (陈灵珍), my father Xichang He (何锡昌), and my older brother Yufeng He (何宇锋). I thank you for standing behind me all these years while I indulged myself in the pursuit of graduate studies in counseling psychology in the United States. Without your support and belief in me, I would not have been able to complete my studies and become the first Ph.D. on both sides of the family. Without your numerous sacrifices, I also would not have been able to enjoy the personal and professional growth that I have gained so far. I am especially grateful to my brother. I am indebted to you for taking over my part of the responsibility for the family, and for sacrificing your opportunities for graduate training, so that I could study abroad. I will never forget all the emotional and financial support you have given me over the years. I am truly blessed to have you in my life. I am also grateful to my mother and grandmother, two strong Hakka women who have showed me first-hand resilience and generosity. You are my inspiration, and the reason that I hold closely to my identity as a Hakka.

I would like to thank my advisor, Dr. Puncy Heppner. I will never forget the many meaningful personal and professional interactions that we have had over the years, starting with my first visit at your house during my interview with MU. I have learned so much from you, in the areas of research, teaching, leadership, and professionalism. I am most grateful for the influence of your values, attitude, and humanity. I feel prepared and confident entering the next chapter of my life, because of your mentoring and advising.

I would like to thank my American mother/mentor/friend, Dr. Lin Gordon. My cross-cultural journey would not have been the same without you. You were the first witness to many of my struggles all these years. You have always been there to raise me up. I am eternally grateful for your generous heart, strong spirit, cultural sensitivity, incredible patience, good humor, and for creating a home base for me in this country. You are my role model.

I would like to thank my former clinical supervisor and current mentor, Dr. Jordan Kilgour. You are one of the very few people who could so instantly see my vulnerability and strengths, and appreciate them in the way that facilitates my acceptance of myself. Every single email from you is a precious gift that I will hold onto as long as I can. You have contributed so much to my journey from East Coast to Mid-West and back

to East Coast. Knowing that I can write to you and will hear from you has been a comfort that I take with me no matter where I go.

I would like to thank my good friends, Dr. Yuning Wu (吴瑜宁), Dr. X. Lucas Lu (陆昕), and Li Li (李力) for opening your heart and home to me. Many times your friendship rescued me from homesickness and isolation. You also have helped me feel connected to the Chinese part of my bi-cultural identity. I am grateful for the opportunities to share my life with you and share yours.

I would like to thank many of my MU friends: Chia-Lin Tsai (蔡佳霖), for your invaluable support on my data analyses; Dr. Rashanta Bledman, for your wit and friendship, as well as connecting me with your wonderful family members; Hung Chiao (乔虹), for your sensitivity and companionship; Catherine Hsieh (谢孟真), for your encouragement and connection; Feihan Li (李非寒), for *yuanfen* and assistance; Lu Tian (田璐), for a great mind; Ran Zhao (赵然), for your playful and thoughtful spirit; Yu Bi (毕玉), for your caring and support; Dr. Yi-Jiun Lin (林宜君), for your friendship and mentoring; Evan Wenxu Xu (徐文许), for your optimistic spirit; Chinghui Hsu (徐静慧), for your thoughtfulness and help; and Wen-Hsin Chang (张文馨), for assistance with data entry.

I would like to thank my committee: Drs. Punccky Heppner, Mary Heppner, Lisa Flores, Li-Fei Wang, and Motoko Akiba for your valuable feedback, encouragement, and patience in seeing me through this project as well as other support and mentoring during my years at MU.

I would like to thank the faculty in China who went out their way to help me with data collection: Guangrong Jiang (江光荣) from Central China Normal University (华中师范大学), Zhiqin Sang (桑志芹) from Nanjing University (南京大学), Guiwen Xu (许桂雯) from Shenzhen University (深圳大学), Xiaohong Chen (陈晓红) from Henan University of Science and Technology (河南科技大学), Without your help, I would not have been able to complete this project.

There are many others whom I remember and thank in heart. This study, without doubt, is a result of collective efforts.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
ABSTRACT.....	x
Body of Dissertation	
1. INTRODUCTION.....	1
2. METHOD	
2.1. Participants.....	10
2.2. Instruments.....	13
2.3. Procedure.....	26
3. RESULTS	
3.1. Descriptive Statistics and Zero-Order Correlations.....	29
3.2. Preliminary Analyses.....	33
3.3. Analyses of Hypotheses.....	34
4. DISCUSSION.....	39
5. REFERENCES.....	51

6. ILLUSTRATIONS	
6.1. Tables.....	70
6.2. Figure.....	77
APPENDICES	
A. EXTENDED LITERATURE REVIEW.....	78
B. DEMOGRAPHIC INFORMATION.....	128
C. PERSONAL COPING STYLE INVENTORY.....	130
D. PROBLEM SOLVING INVENTORY.....	132
E. COLLECTIVIST COPING STYLES INVENTORY.....	136
F. EXTERNAL CAREER BARRIERS INVENTORY.....	140
G. EMOTIONAL PROBLEMS.....	142
H. EXTENDED SATISFACTION WITH LIFE SCALE.....	148
I. ORAL CONSENT SCRIPT.....	150
J. DELETED DATA INFORMATION.....	153
VITA.....	158

LIST OF TABLES

Table	Page
1. Factor Loadings of the External Career Barriers Inventory (ECBI).....	70
2. Correlations of the ECBI factors.....	71
3. Means, Standard Deviations, Skewness, and Kurtosis of the Variables.....	72
4. Zero-Order Correlations among the Primary Variables and Their Internal Consistency Estimates.....	73
5. Hierarchical Multiple Regression Analyses for the Interactions of ECBI and DC Strategies in Predicting EP and E-SWLS.....	74
6. Hierarchical Multiple Regression Analyses for the Interactions of ECBI and ARS in Predicting EP and E-SWLS.....	75
7. Hierarchical Multiple Regression Analyses for the Interactions of ECBI and COPE in Predicting EP and E-SWLS.....	76

LIST OF FIGURE

Figure	Page
1. Interaction Effect between ECBI and DC on EP.....	77

SEARCHING FOR JOBS AMID DIFFICULT ECONOMIC TIMES IN CHINA:
THE ROLE OF COPING AND PERCEIVED BARRIERS IN
PSYCHOLOGICAL ADJUSTMENT AND WELL-BEING

Yuhong He

Dr. P. Paul Heppner, Dissertation Supervisor

ABSTRACT

The present study examined the relationships among external career barriers, dispositional coping, situation-specific collectivist coping, and both psychological adjustment and well-being among a sample of 813 mainland Chinese college seniors. Hierarchical regression analyses indicated that external career barriers, dispositional coping, and situation-specific coping predicted emotional problems and life satisfaction. In addition, dispositional coping moderated the relationship between external career barriers and emotional problems. Implications of this study's findings in the Chinese cultural context were discussed.

Searching for Jobs amid Difficult Economic Times in China:

The Role of Coping and Perceived Barriers in Psychological Adjustment and Well-Being

Introduction

February 23rd, 2009, a female college student named Wei Liu from Shi Jia Zhuang College in China committed suicide due to an unbearable amount of difficulty in getting a job. She left behind a one-hundred-thousand-word journal describing her experiences of searching for a job, all the difficulties she encountered in the job market, and her feelings of distress and hopelessness. She also left behind her heart-broken parents who had her as the only child. In addition, a report from the China Ministry of Education indicated that China was expecting the largest group of new college graduates (6,100,000) in 2009. Simultaneously, the China Ministry of Human Resources and Social Security disclosed that the country's unemployment rate was projected to increase to 11% in the same year partially due to the worldwide recession that started in 2008. Clearly, the competition for job opportunities is unprecedentedly high for Chinese college seniors and the job-search stress contributed to Liu's tragedy. As a result, scholars and the society as a whole have become increasingly concerned about the Chinese college seniors'

mental health while those students were actively participating in various job-search activities during a difficult economic time in China.

Researchers have found that job-search difficulty has resulted in a number of psychological and physical problems among the Chinese college seniors. For instance, Chinese college job-seekers across different colleges and majors reported psychological problems ranging from confusion, low self-esteem, mood swings, hostility, obsessive thoughts and behaviors, isolation, anxiety, depression, and other mood disorders (Chen, Liu, & Gu, 2008; Luo, 2006; Peng, Liu, Chen, Song, & Wang, 2008; Wang & Zhao, 2008; Zhang, Liu, & Jing, 2003). Chinese college job-seekers also indicated somatic complaints such as headache, sleep disturbance, decreased memory, attention difficulties, and behavioral problems as a result of the job-search stress (Zhang et al., 2003; Zheng & Chen, 2001). In addition, some college seniors were found to perform self-harm behaviors and some even committed suicide because of the difficulties in getting a job (Luo, 2006; Zhen & Chen, 2001; Wang, 2005). In fact, both empirical studies and media reports suggested that recent years have witnessed an increasing number of suicides among Chinese college seniors due to the job-search stress (Liu, Qiang, & Xu, 2008; Wang, 2005). As it was predicted in the country that the job-search would continue to be

a highly stressful event for Chinese college seniors, it is important to further investigate the students' psychological adjustment during job search and how other personal and environmental variables relate in this process.

Coping is a process or a set of strategies that people use to respond to stress. As a major factor in the relationship between stressful events and adaptational outcomes (e.g., depression and somatic illness), coping has been studied extensively in the field of psychology (e.g., Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Heppner, Witty, & Dixon, 2004; Skinner, Edge, Altman, & Sherwood, 2003; Somerfield, & McCrae, 2000). In particular, there are two dominant approaches to studying coping: (a) trait-oriented approach which emphasizes dispositional coping styles suggesting that people's coping responses are stable over time, and relatively consistent across stressors, and (b) process-oriented approaches which emphasizes situation-specific coping that is dynamic in nature and the context is critical (Bouchard, Guillemette, & Landry-Leger, 2004; Folkman et al., 1986; Ptacek, Pierce, & Thompson, 2006). Some efforts have been made to examine the relationship between dispositional and situation-specific coping (e.g., Bouchard et al., 2004; Brown, Phillips, Abdullah, Vinson, & Robertson, 2011). However, Bouchard et al. (2004) found that using the same questionnaire with slightly

different instructions to measure the two distinct constructs (i.e., dispositional and situation-specific coping) could be problematic, as the correlations between them could be overestimated. Thus, it was suggested that future research used distinct measures to assess the two constructs.

Studying coping as well as examining both the dispositional and situation-specific coping has been an area of interest to Chinese scholars. Mainly using Western-developed coping measures (e.g., WCC, COPE), Chinese scholars have found that both dispositional and situation-specific coping are relevant psychological constructs to understand how Chinese (e.g., college students) responded to stressful events (Gao, 2004; Liu, Jiang, & Dong, 2003). Thus, it seems that it is appropriate to investigate Chinese college seniors' situational-coping with job-search stress and their dispositional coping. Peterson (2006) stressed that since all behaviors are learned and displayed in a cultural context, it can be expected to influence the experience of stress and coping. Thus, it is important to use culturally relevant or sensitive coping measures to understand Chinese dispositional and situation-specific coping.

There are a few coping measures that have received more rigorous examination and have evidence to support their utilization in the Chinese cultural context. Two of the

dispositional coping measures and one situation-specific coping measure were validated or developed as culturally sensitive measures to the Chinese context. Specifically, Problem-Focused Styles of Coping (PF-SOC; Heppner, Cook, Wright, & Johnson, 1995) and Problem-Solving Inventory (PSI; Heppner, & Peterson, 1982) have been found to have good reliability and validity in a few studies with Chinese samples (Chan, 2001; Cham & Gan, 2009; Tian & Heppner 2008). PF-SOC is a dispositional measure of coping designed to assess individuals' problem-focused coping efforts associated with progress toward resolution of a problem. PSI is also a dispositional measure of coping assessing a person's perceptions of his or her problem solving styles. There has been ample evidence suggesting that PF-SOC and PSI are related to various psychological distress indices (Heppner et al., 2004). Collectivist Copying Styles (CCS; Heppner, Heppner, Lee, Wang, Park, & Wang, 2006), a situation-specific coping measure, was conceptualized based on Asian values and normed in a large Taiwanese sample. It assesses the helpfulness of various collectivist coping strategies and its five factors have been found to be related to psychological adjustment indices as well. Thus, it seems appropriate and meaningful to use these measures to study how Chinese college students cope during their job search to

not only gather further psychometric information about the measures but also to provide a more comprehensive assessment of Chinese college students' coping.

In addition to coping, environmental factors (e.g., contextual career barriers) are relevant to Chinese college seniors' job-search difficulty and resulting psychological distress. There are two different perspectives in classifying career barriers. Different from Swanson and Tokar's (1991b) suggestion of two levels of career barriers (intrapersonal and environmental), Lent, Brown, and Hackett (2000) indicated that in Social Cognitive Career Theory, career barriers specifically refer to contextual impediments that are distinct from intrapersonal factors such as self-efficacy. Lent et al., (2000) also suggested that it is important for future research to examine career barriers encountered in a specific time frame and with a specific developmental task (e.g., getting a job). In addition, similar to Swanson and Tokar's (1991a, 1991b) findings that college students perceived a wide range of career barriers, Chinese scholars found that Chinese college seniors reported encountering a number of contextual career barriers hampering their job search such as job market constraints, resident status, financial situation, limited social network, lack of role models, discrimination, and disapproval from family members (e.g., Lu & Yang, 1999; Tan, 2006; Wang & Li, 2006). Yet, most of the studies were simple

survey studies. There was a lack of a psychometrically sound contextual career barriers measure as well as an inclusion of outcome measures. Hence, further research is needed by using culturally appropriate and psychometrically sound career barriers as well as outcome measures to examine contextual impediments and their psychological impact on Chinese during their job search.

Researchers suggested that there is a linkage between coping and career barriers. Lent et al. (2000) proposed examining one relevant coping factor-coping efficacy in relation to career barriers. Coping efficacy was defined as one's ability to cope with or manage complex and difficult situations (Lent et al., 2000). It was suggested that individuals with different levels of coping efficacy could perceive fewer or more career barriers, feel less or more stressed even when encountering similar barriers, and engage in different behaviors as responses (Lent et al., 2000). Thus, it is possible that general coping (dispositional and situation-specific coping) play a similar role with coping efficacy as conceptualized by Lent et al. (2000) in the relationship between contextual career barriers and psychological outcome. It appears that an examination of the interaction between coping and career barriers among Chinese college seniors during job search could extend our understanding of such person-environment interactions.

Few studies in China have examined the relationships among coping, contextual career barriers, and psychological adjustment. With four studies on situation-specific coping during Chinese college seniors' job search (e.g., Long & Deng, 2008) as well as other coping studies in China, there are a number of methodological issues which restrict our understanding of Chinese coping and particularly with job search. For instance, there is a lack of research on the factor structure and the validity and reliability estimates of the coping and psychological outcome measures used in China (e.g., Long & Deng, 2008; Wang & Zhao, 2008). There is also limited discussion on how the Chinese cultural context influences the participants' coping responses and thus the impact on their psychological experiences. Wong, Wong, and Scott (2006) affirmed the importance of studying the context of coping. Lent et al. (2000) also stressed that career barriers are influenced by specific context. Thus, using culturally relevant and sensitive measures is necessary and would highly enhance our confidence in the research results and provide more useful recommendations for future research and practice. Clearly, inclusion of psychometrically sound and culturally sensitive psychological measures, appropriate to the Chinese cultural context, is very important to examine the psychological adjustment and well-being among Chinese college job-seekers.

Thus, the main foci of the study are threefold: (a) to examine the association between Chinese students' perceived contextual barriers within their job search and their psychological adjustment and well-being, (b) to examine the role of coping on psychological adjustment and well-being within the Chinese cultural context of college seniors' job search, and (c) to examine whether Chinese coping styles moderate the relationship between career barriers and students' psychological adjustment and well-being during the job search. Specifically, three sets of hypotheses were tested in the study. We proposed the following hypotheses in the context of Chinese culture and job search:

Hypothesis 1: Greater career barriers impediments would be associated with more emotional problems and lower levels of life satisfaction.

Hypothesis 2a: More positive levels of dispositional coping would be associated with fewer emotional problems and higher levels of life satisfaction.

Hypothesis 2b: More helpfulness of situation-specific coping strategies would be associated fewer emotional problems and higher levels of life satisfaction.

Hypothesis 2c: Higher levels of dispositional and situation-specific coping together would be associated with fewer emotional problems and higher levels of life satisfaction.

Hypothesis 3a: There would be an interaction between dispositional coping and external career barriers in predicting emotional problems and life satisfaction.

Hypothesis 3b: There would be an interaction between situation-specific coping and external career barriers in predicting emotional problems and life satisfaction.

Hypothesis 3c: There would be an interaction between dispositional and situation-specific coping together and external career barriers in predicting emotional problems and life satisfaction.

Method

Participants

A total of 935 senior college students from four universities in China participated in the study. After deleting the observations with (a) 10% or more missing data, (b) out of range responses, and (c) patterns of repeated or sequential responses, 813 participants' responses were retained for further analyses. A detailed description of the deleted data is reported in Appendix J, based on the suggestions by Schlomer, Bauman, and Card (2010).

Among the retained participants, 235 (28.9%) were recruited from the Central China Normal University (CCNU), 225 (27.7%) from Shenzhen University (SU), 196 (24.1%) from Nanjing University (NU), and 157 (19.3%) from Henan University of Science and

Technology (HUST). There were almost an equal number of male ($n = 407$; 50.1%) and female participants ($n = 406$; 49.9%). The age of the participants ranged from 18-27 years ($M = 22.61$, $SD = 1.03$). Majority of the participants identified with Han ethnicity ($n = 771$; 95.0%). More than half of the participants ($n = 558$; 69.1%) reported being single, while 249 (30.8%) being in a relationship and 1 (0.1%) being married. Vast majority of the participants identified as heterosexuals ($n = 784$; 96.9%), while 10 (1.2%) as gay or lesbians and 10 (1.2%) as bisexual. They came from more than 50 majors. Over one third of the participants ($n = 302$; 37.2%) were only children, 284 (35.0%) had one sibling, 141 (17.4%) had two siblings, and 85 (10.5%) had three or more siblings. Participants reported various degree of job search: a little ($n = 336$; 41.6%), moderate ($n = 242$; 30.0%), none ($n = 209$; 25.9%), and a great deal ($n = 20$; 2.5%). The mean number of job interviews were 5.6, ranging from 0 to more than 30 ($SD = 11.89$). The mean number of job offers that the participants received were 1.44, ranging from 0 to more than 10 ($SD = 5.53$). More than half of the participants indicated that they would mostly like to find jobs in Beijing, Shanghai, and the Zhujiang Triangle area ($n = 424$; 52.6%), following by those in other big cities ($n = 201$; 24.9%), place does not matter ($n = 88$; 10.9%), mid-sized and small cities ($n = 87$; 10.8%), and rural areas or villages ($n = 5$; 0.6%). Less than

half of the participants had yet made a decision on jobs (n = 339; 44.7%) at the time of completing the survey, while 353 (46.6%) made their decisions.

Majority of the participants also reported that their parents were married (n = 762; 94.0%). Parents' combined monthly income levels were reported as: between \$152-\$457 (n = 302; 37.3%), between \$457-\$762 (n = 207; 25.6%), below \$152 (n = 133; 16.5%), between \$762-\$1066 (n = 86; 10.6%), between \$1066-\$1371 (n = 44; 5.4%), and equal or more than \$1371 (n = 36; 4.5%). The participants' fathers' education level were: high school (n = 286; 35.4%), middle school (n = 197; 24.4%), associate degree (n = 107; 13.2%), bachelor degree (n = 87; 10.8%), elementary school or below (n = 76; 9.4%), technical school (n = 39; 4.8%), and master's or doctoral degree (n = 15; 1.9%). The participants' mothers' education level were: high school (n = 257; 31.7%), middle school (n = 247; 30.5%), elementary school or below (n = 143; 17.6%), associate degree (n = 75; 9.2%), bachelor degree (n = 44; 5.4%), technical school (n = 42; 5.2%), and master's or doctoral degree (n = 3; 0.4%). The participants' fathers were reported to be working in the following fields: farming, forestry, fishing (n = 270; 33.6%), sales or commercial (n = 145; 18.1%), administrative support (n = 100; 12.5%), educational or professional occupations (n = 93; 11.6%), governmental, executive, managerial occupations (n = 80;

10.0%), unemployed or retired (n = 78; 9.7%), services (n = 29; 3.6%), military occupations (n = 6; 0.7%), and homemaker (n = 2; 0.2%). The participants' mothers, on the other hand, were reported to be working in the following fields: farming, forestry, fishing (n = 225; 27.8%), homemaker (n = 184; 22.7%), unemployed or retired (n = 97; 12.0%), administrative support (n = 90; 11.1%), sales or commercial (n = 78; 9.6%), educational or professional occupations (n = 54; 6.7%), services (n = 48; 5.9%), governmental, executive, managerial occupations (n = 32; 4.0%), and military occupations (n = 1; 0.1%).

Instruments

Demographic questionnaire (see Appendix B). A demographic questionnaire was constructed for this study and solicited information about age, sex, major, ethnicity, relationship status, sexual orientation, resident status, number of siblings, parents' marital status, education levels, and occupations, degree of job search, number of job interviews and offers, intended job location, and graduation plan.

Problem-Focused Style of Coping (PF-SOC: Heppner, Cook, Wright, & Johnson, 1995; see Appendix C). The 18-item PF-SOC is a dispositional measure of coping designed to assess individuals' problem-focused coping efforts associated with progress

toward resolution of a problem. Each item is measured on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost all of the time). Higher scores of PF-SOC indicate more use of the styles described below. It consists of three factors: Reflective Style (7 items), Suppressive Style (6 items), and Reactive Style (5 items). Reflective Style refers to a tendency to examine casual relationships, plan, and be systematic in coping. Suppressive Style is defined as a tendency to deny problems and avoid coping activities. Reactive Style implies a tendency to have emotional and cognitive responses that deplete the individual or distort coping activities. The PF-SOC appears to be internally consistent, with coefficient alphas .77, .76, and .73 for Reflective Style, Suppressive Style, and Reactive style in a U.S. sample (Heppner et al., 1995). It was also found to be stable over a 3-week period with the test-retest reliability coefficients for the subscales ranging from .65 to .71. In addition, the PF-SOC total was found to be moderately correlated with the general dispositional PSI, and the situation-specific coping measure Coping Strategies Inventory (CSI), but not strongly associated with social desirability. It was also found to be associated with psychological adjustment (Heppner et al., 1995). Moreover, the PF-SOC, specifically the Reactive and Suppressive Styles added a statistically significant

amount of variance beyond the PSI and CSI in predicting measures of psychological distress.

Cham and Gan (2008) examined the applicability of the PF-SOC in two groups of Chinese college students and its relationship with psychological distress. Using both exploratory and confirmatory factor analyses, the authors found that with the deletion of three items, the PF-SOC obtained a similar three-factor structure as the original one but with 15 items. The alpha coefficients for Reflective Style, Suppressive Style, and Reactive Style were .73, .69, and .67, respectively (Cham & Gan, 2008). In addition, the revised PF-SOC was found to be significantly correlated with the PSI factors except that the Reactive Style was not associated with the Approach-Avoidance factor in the PSI. Moreover, the PF-SOC was found predictive of the Chinese participants' psychological distress measured by the Beck Depression Inventory. Another study on examining the psychometric properties of PF-SOC was done by Chang, Lan, Lin, and Heppner (2011) in two Taiwanese college student samples. The results suggested a three-factor solution with 13 items. Items 1, 3, 10, 13, and 15 were deleted. The alpha coefficients were reported on the three factors with same labels: .81 and .79 for Reflective Style, .83 and .75 for Suppressive Style, and .71 and .70 for Reactive Style.

In the present study, the original PF-SOC 3-factor model with 18 items by Heppner et al. (1995), the revised PF-SOC 3-factor model with 15 items by Cham and Gan (2008), and the revised PF-SOC 3-factor solution with 13 items by Chang et al. (2011) were examined by performing CFA using Mplus 6.0. Model fit indices suggested that the Chang et al.'s (2011) PF-SOC 3-factor model is a better fit for the Chinese sample in this study. The fit indices were as follows: $\chi^2(62, N = 813) = 224.07, p < .001$; RMSEA = .06 (at 90% confidence intervals, .05-.07); CFI = .92; and SRMR = .05. The coefficient alphas for Reflective Style, Suppressive Style, and Reactive Style and PF-SOC total were .75, .68, .65, and .68 respectively.

Problem-Solving Inventory-Form B (PSI: Heppner, 1988; Heppner & Petersen, 1982; see Appendix D). The 32-item PSI is a dispositional measure of coping assessing an individual's appraisal of his or her real-life problem-solving ability or styles instead of the person's actual problem solving skills (Heppner, 1988). Each item is measured on a 6-point Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree). Lower scores on the PSI represent higher problem-solving appraisal. It consists of three factors: Problem Solving Confidence (PSC, 11 items), Approach-Avoidance Style (AAS, 16 items), and Personal Control (PC, 5 items). PSC implies an individual's belief or trust in

one's problem-solving ability while engaging in a wide range of problem-solving activities. This factor can be conceptualized as a general measure of one's problem solving efficacy, or belief in one's ability to effectively cope with problem. AAC refers to an individual's general tendency to approach or avoid one's personal problems. PC is defined as an individual's perception of one's control over emotions and behaviors when dealing with problems. A number of studies have suggested that the PSI is internally consistent with alpha coefficients ranging from .70 to .90 across a number of populations and cultures (see Heppner et al., 2004). The 2-week test-retest reliabilities were .85, .88, .83, and .89 for the PSC, AAS, PC, and the total inventory, respectively (Heppner & Petersen, 1982). In addition, it was found that the PSI is not correlated with scores on intelligence measures, academic achievement, and general measure of social desirability (Heppner & Petersen, 1982).

A few studies tested the internal consistency of the PSI in Chinese college student samples (Cham & Gan, 2008; Chan 2001; Tian & Heppner, 2008). Cham and Gan (2008) tested the 3-factor model in a group of Chinese college students. Their results indicated the same factor structure was obtained and the alpha coefficients for the PSC, AAS, and PC were .83, .85, and .63, respectively. On the other hand, Tian and Heppner (2008) did

not find the original factor structure stable in another Chinese sample. Instead, they obtained a revised three-factor structure, the PSC and two slightly different factors which were named Reflective Thinking (RT) and Emotional Control (EC). The PSC, RT, EC, and total PSI alpha coefficients were .76, .72, .67, and .79, respectively. In addition, Chan (2001) reported poor fit indexes of the original 3-factor structure in a sample of Chinese college students from Hong Kong. His study suggested a different three-factor model with 30 items. The factors were renamed to Rational Coping (RC; 14 items), Dysfunctional Coping (DC; 9 items), and Problem-Solving Efficacy (PSE; 7 items). The author proposed a more abbreviated instrument that still measures the three problem-solving constructs accurately and retained 15 items with 5 items for each factor. The coefficient alphas for the revised PSI total, RC, DC, and PSE are .78, .72, .62, and .74.

In the current study, the original PSI 3-factor model with 35 items by Heppner (1988) and the two revised 3-factor model by Tian and Heppner (2008) with 18 items and Chan (2001) with 15 items were examined by performing CFA. Model fit indexes suggested that Tian and Heppner's (2008) PSI 3-factor model is a better fit in the current Chinese sample. The fit indices were as follows: $\chi^2(132, N = 813) = 444.34, p < .001$; RMSEA

=.05 (at 90% confidence intervals, .05 -.06); CFI=.90; and SRMR = .05. The coefficient alphas for PSC, RT, EC and PSI total were .77, .72, .70, and .81 respectively.

Collectivist Coping Styles (CCS: Heppner et al., 2006; see Appendix E). The 30-item CCS is a situation-specific coping inventory and measures individuals' ways of coping with specific stressful and traumatic life events; the CCS was based on major Asian values, and initially validated in a Taiwanese cultural context. The scale uses a Likert-type response format ranging from 0 (never used this strategy/not applicable), 1 (used but of no help at all), to 5 (a tremendous amount of help). Higher scores suggest more helpful coping strategies. The CCS consists of five factors: Acceptance, Reframing, and Striving (ARS, 11 items), Family Support (FS, 6 items), Religion/Spirituality (RS, 4 items), Avoidance and Detachment (AD, 5 items), and Private Emotional Outlets (PEO, 4 items). ARS describes individuals' combined efforts to accept the trauma or accommodate to existing realities (fatalism), reframe the meaning of the trauma in order to maintain interpersonal harmony or maintain emotional control over the traumatic events. It also reflects persistence, and their perceived efficacy to resolve a particular trauma. FS reflects individuals' seeking of support from family and respected elders because they trust the elders-ancestors' guidance. RS describes individuals aligning

themselves with religious institutions or beliefs or using religion or spiritual activities to cope with trauma. AD refers to individuals' efforts to detach themselves and avoid thinking about the traumatic event for short period of time in order to save face or protect parents from being worried. PEO reflects the use of external means to problem solve such as seeking advice from people outside of regular social network and tension reduction activities while maintaining confidentiality and anonymity.

Initial estimates suggested that the CCS is internally consistent with the alpha coefficients were .85 for total CCS, and .82, .87, .74, .88 and .60 for ARS, FS, RS, AD, and PEO, respectively (Heppner, et al., 2006). The 2-week test-retest reliability estimates were .77 for total CCS, .56, .91, .73, .70, and .73 for ARS, FS, RS, AD, and PEO, respectively (Heppner, et al., 2006). In addition, it was suggested that the CCS total was significantly correlated with the PSI and three factors of the CCS (RS, AD, and PEO) were significantly related to two indices of psychological distress (Global Severity Index and Posttraumatic Diagnosis Scale). It was also found to be distinct from social desirability. Siu and Chang (2011) examined the factor structure of the CCS in a group of college students in Hong Kong and reported evidence to support the five-factor structure

of the original inventory. The coefficient alphas for the five factors were .85, .88, .84, .66, and .75 respectively.

Since the cultures in Taiwan and Hong Kong and the mainland Chinese culture share similar cultural heritages, and in general exhibit similar cultural practices, the CCS seems to be an appropriate inventory for mainland Chinese college sample. Nonetheless, to examine the factor structure as well as other validity and reliability estimates, a CFA was conducted in the current study. The fit indices were as follows: χ^2 (395, N = 813) = 1533.03, $p < .001$; RMSEA = .06 (at 90% confidence intervals, .05-.06); CFI=.80; and SRMR = .08. The coefficient alphas for total CCS, ARS, FS, RS, AD, and PEO were .87, .76, .80, .88, .74, and .71 respectively.

External Career Barriers Inventory (ECBI: Adapted from CBI-R by Swanson, Daniels, & Tokar, 1996; see Appendix F). The ECBI was developed by the researchers of this study to measure environmental impediments to mainland Chinese college students' job search. We first examined the Career Barriers Inventory-Revised (CBI-R) which assesses the degree of hindrance of a wide range of internal/intrapersonal/personal and external/contextual/environmental barriers that college students might perceive across various career-related events (e.g., getting the first job, choosing a career). Nine items

assessing external barriers from the CBI-R were included in the ECBI as they were relevant in the Chinese cultural context. Twenty three additional items were developed based on literature review of Chinese career barriers literature, consultation with two Taiwanese career psychologists, one Chinese career psychologist, and a number of Chinese graduate students in counseling psychology in both U.S. and China. Upon several rounds of feedback and revisions, final inventory included 32 items. A pilot study with six Chinese international students at MU was conducted prior to formal administration of the data collection in China. After they completed the questionnaires, the investigator debriefed with the participants about their experiences in taking the survey, any suggestions they had, and any ambiguities in the questionnaires. Minor edits were then made on the ECBI.

Conceptually, ECBI reflected six categories: environmental constraints (12 items), limited network (4 items), discouraged from choosing nontraditional careers (4 items), disapproval by significant others (3 items), discrimination (5 items), and limited resources (4 items). In sum, the ECBI consists of 32 Likert items that are represented on a 7-point continuum (1 = did not hinder at all, 7 = completely hindered). Higher scores indicate a greater degree of impediments in finding a job.

Due to the significant changes in the ECBI, an EFA was performed on the 32 items. The model fit indices suggested a five-factor solution with 23 items: χ^2 (205, N = 406) = 728.54, $p < .001$; RMSEA = .08 (at 90% confidence intervals, .07-.09); CFI=.90; and SRMR = .04. They are Limited Network (LN; 4 items), Gender Prejudice (GP; 3 items), Discrimination and Disapproval (DD; 6 items), Limited Opportunities and Resources (LOR; 8 items), and Field Mismatch (FM; 2 items). To test the stability of the factorial structure of the items from the ECBI, a CFA was conducted. The fit indices were as follows: χ^2 (220, N = 407) = 747.74, $p < .001$; RMSEA = .07 (at 90% confidence intervals, .07-.08); CFI=.87; and SRMR = .06. All of the factor loadings were significant ($p < .001$). Factor loadings were reported in Table 1. The correlations ranging from .14 to .50 among the five factors were presented in Table 2. The coefficient alphas for LN, GP, DD, LOR, FM, and ECBT total were .88, .78, .82, .84, .86, and .92 respectively.

Emotional Problem of Cross-Cultural (Chinese) Personality Assessment

Inventory-2 (EP of CPAI-2; Cheung, Leung, Song, & Zhang, 2001; see Appendix G). The

CPAI-2 is a multiphasic personality inventory which measures Chinese personality characteristics for normal and diagnostic assessment from a Chinese indigenous perspective. It was standardized using a representative sample (N = 1,911) of Chinese

from both mainland China and Hong Kong. It uses a True or False response format and consists of three groups of subscales: Personality scales, Clinical scales, and Validity scales. The clinical scales contain two factors: Emotional Problems (EP) and Behavioral Problems. EP is measured by the following scales with 20 items for each: Inferiority vs. Self-Acceptance (I-S), Anxiety (ANX), Depression (DEP), Physical Symptoms (PHY), Somatization (SOM), and Sexual Maladjustment (SEM). In this study, five scales (I-S, ANX, DEP, PHY and SOM) were chosen to measure the Chinese college students' emotional problems (EP) not only because they have been tested as culturally sensitive measures, but also because their applicability to the Chinese college population. Specifically, I-S reflects a lack of both confidence and emotional stability. ANX refers to excessive worry, difficulty in focusing attention on a task, and obsessive thoughts or behavior. DEP implies a negative and pessimistic view toward problems in life, lacking in confidence, self-reproaching, and showing minimum interest in most activities. PHY reflects susceptibility to illness, experiences of various physical symptoms such as dizziness, headache, choking sensation in the chest, and insomnia. SOM refers to presentation of somatic complaints that may arise from psychological conflicts, expression of distress through somatic presentation, shopping around for medical advice,

using physical problems to gain others' concern, and lacking insight into psychological problem. The alpha coefficients of the CPAI-2 clinical scales total were .75 and .78 for the mainland and Hong Kong Chinese sample, respectively (Cheung et al., 2001). While the test-retest stability estimates were not available for specific scales of the CPAI-2, the coefficients at one-week interval among a group of 45 participants ranged from .68 to .94 with a mean of .84 (Cheung, Cheng, & Zhang, 2004a). In addition, the CPAI-2 clinical scales demonstrated convergent validity with the clinical and content scales of the Chinese MMPI-2 and predicted manifestations of pathology (Cheung, Cheng, & Zhang, 2004b). In the present study, the alpha coefficients for I-S, ANX, DEP, PHY, SOM, and Emotional Problem (EP) total were .81, .84, .80, .74, .64, and .93 respectively.

Expanded Satisfaction with Life Scale (E-SWLS: Ho & Cheung, 2007; see

Appendix H). The 6-item E-SWLS measures individuals' satisfaction with life at both intra- and inter- personal levels. It consists of two factors: Intrapersonal Subjective Well-Being (Intrapersonal SWB, 3 items) and Interpersonal SWB (3 items). The scale uses a Likert-type response format with 1 (strongly disagree) and 7 (strongly agree). Ho and Cheung (2007) reported internal consistency with alpha coefficients of .90 for the total E-SWLS and .86 and .86 for the Intrapersonal SWB and Interpersonal SWB respectively in

a Hong Kong sample. The test-retest reliability coefficient alpha of the original Satisfaction with Life Scale (SWLS: Diener, Emmons, Larson, & Griffin, 1985) was .87 over at a two-month interval. In addition, the SWLS was found to be distinct from social desirability measure and yet related to other measures of subjective well-being (e.g., happiness, self-esteem, emotional intensity) (Diener et al., 1985). In the present study, CFA was performed on the two-factor structure. The fit indices were as follows: χ^2 (6, N = 813) = 46.63, $p < .001$; RMSEA = .09 (at 90% confidence intervals, .07-.11); CFI=.99; and SRMR = .02. The coefficient alphas for the total E-SWLS, Interpersonal SWB, and Intrapersonal SWB were .89, .84, and .84.

Procedures

Translation and Backtranslation. PF-SOC, PSI, CCS, EP, and E-SWLS were previously translated into Chinese. Hence, the nine items from the CBI-R made the ECBI the only instrument which has not been translated into Chinese. Therefore, following Mallinckrodt and Wang (2004), the researcher first translated the instrument from English to Chinese. The researcher then identified a Chinese international student (T1: translator 1) outside of counseling psychology program and who has limited to no knowledge about the scales to translate the Chinese version of the instrument to English.

A native English speaker (T2: translator 2) from the counseling psychology program was invited to check the linguistic and meaning equivalency between the original and the translated version of the ECBI. Comments on differences were given to the researcher, who then made more changes in the Chinese translation and give it to T1 for back translation. T2 further reevaluated the linguistic and meaning equivalency of the English versions. This process was reiterated until the two English versions were deemed equivalent, both linguistically and in terms of meaning.

Recruitment of Participants and Data Collection. Four university faculty from four different universities in various areas of China (northern, central, eastern, and southern) were contacted and asked to recruit a representative sample of Chinese college seniors from their universities. The faculty and their affiliated institutions are: (a) Dr. Guangrong Jiang at the Central China Normal University (CCNU; Hubei province, central China), (b) Dr. Zhiqin Sang at Nanjing University (NU; Jiangsu province, eastern China), (c) Mrs. Guiwen Xu at Shenzhen University (SU; Guangdong province, southern China), and (d) Mrs. Xiaohong Chen at Henan University of Science and Technology (HUST; Henan province, northern China). The four faculty were given the following information: (a) the purpose of the study as to examine the role of coping and

perceived barriers on Chinese college seniors' psychological adjustment and well-being during their job search, (b) proposed data collection time frame, (c) questions procedures to gain approval to conduct research at each institution, and (d) questions about the type of culturally appropriate consent form for research participants. All four faculty agreed to help the investigator identify and invite fourth-year college students in various majors at their institutions to participate in the study. They also indicated that their universities did not have internal review boards and the approval from the department chairs or college deans is sufficient for the investigator to collect data from the students; moreover, gaining oral consent from the students is the cultural norm and thus appropriate in the Chinese cultural context.

The researcher met with the student leaders, staff, or instructors to go over the protocol of data collection, including the voluntary nature of the study and the contact information of the researcher. The researcher visited each of the four universities and was available on the phone or on campus (when allowed due to an outbreak of the swine flu at that time) to answer questions as the student leaders, staff, or instructor were administering data collection to their college seniors. A description of the study in

Mandarin and the consent nature was attached as the first page to the questionnaire packet (Appendix I).

It took approximately forty minutes to complete all the questionnaires. Since it is a relatively long questionnaire packet, to test of the effect of fatigue, two forms (A and B) of the questionnaire packet were prepared which varied the order of the instruments. Half of the students were given form A, while the other received form B. When the students completed the questionnaire packet, those at the SU and NU were given a small gift (e.g., fan, plastic folder, water bottle), those at the CCNU were given \$1.5 (10 RMB), and those at the HUST were given \$0.7 (5 RMB) as a token of appreciation. Decision about the incentives was made based on the consultation with the faculty contacts and students from the four universities. A total of 960 questionnaires were given across the four universities and 935 (97.4%) were returned.

Results

Descriptive Statistics and Zero-Order Correlations

Means, standard deviations, skewness, and kurtosis of all the variables are presented in Table 3. Also, it was worth noting that the means of the items for Reflective, Suppressive, Reactive Styles, and the PF-SOC were 3.06 (sum = 18.37), 3.96 (sum =

15.86), 3.30 (sum = 9.90), and 3.40 (sum = 44.19), which implied that Chinese college seniors reported greater than medium level of problem resolution. The means of the items for PSC, RT, EC, and PSI were 2.51 (sum = 26.93), 2.73 (sum = 25.63), 3.67 (sum = 19.99), and 2.96 (sum = 72.74), which were very close to Tian and Heppner's (2008) findings in two groups of Chinese college students. The results suggested that Chinese college students, across years of study, reported medium level of problem-solving appraisal. The means of the items for ARS, FS, RS, AD, PEO, and CCS were 2.85 (sum = 28.39), 2.71 (sum = 14.50), 2.20 (sum = 3.18), 2.03 (sum = 7.27), 2.52 (sum = 5.68), and 2.63 (sum = 58.87), which were close to the normative data in Heppner et al.'s (2006). These findings indicated that Chinese college seniors found the collectivist college strategies during job search were between a little help and a moderate amount of help. The means of the items for LN, GP, DD, LOR, FM, and ECBI were 3.43 (sum = 13.74), 3.00 (sum = 9.00), 2.39 (sum = 14.74), 3.65 (sum = 29.20), 3.18 (sum = 6.36), and 3.16 (sum = 72.93), suggesting that Chinese college seniors found the external career barriers had medium level of hindrance on them. The means of the items for IS, ANX, DEP, PHY, SOM, and EP were .31 (sum = 5.59), .24 (sum = 4.95), .21 (sum = 4.12), .21 (sum = 4.18), .29 (sum = 4.66), and .25 (sum = 23.26), indicating that the students in this

study reporting relatively fewer emotional problems. The means of the items for Interpersonal well-being, Intrapersonal well-being, and E-SWLS were 4.38 (sum = 13.15), 4.08 (sum = 12.24), and 4.23 (sum = 25.39), implying that Chinese college students experienced average level of life satisfaction. In addition, the skewness and kurtosis values were less than the absolute value of 2.0, indicating normal distribution of scores in the variables. Zero-order correlations among the primary variables (that is, PF-SOC, PSI, ECBI, EP, and E-SWLS) and the five factors of the CCS as well as their internal consistency estimates were summarized in Table 4. Moreover, it was found that participants who filled out form A did not differ from those who answered form B.

Results showed that the total ECBI were significantly correlated with both the total PF-SOC ($r = -.23, p < .001$) and the total PSI ($r = .30, p < .001$) such that greater hindrance of career barriers were associated with less problem resolution and more negative problem-solving appraisal. The total ECBI was also significantly correlated with the total CCS ($r = -.19, p < .001$) and three factors: ARS ($r = -.21, p < .001$), AD ($r = -.13, p < .05$), and PEO ($r = -.09, p < .05$); specifically, more hindrance of career barriers were associated with less helpfulness of collectivist coping activities in general, and acceptance, reframing, striving, avoidance and detachment, and private emotional outlet

activities in particular. Clearly, the association between ECBI and AD and PEO were fairly small. Further examination was conducted on the five factors of the CCS and the total CCS. Heppner et al. (2006) suggested that ARS is the largest factor and was found to be the most helpful factor among the five. Table 4 confirmed that ARS showed the highest correlation with other variables in this study. Considering that ECBI was not associated with FS and RS and had relatively smaller association with AD and PEO, we decided to only use ARS out of the five factors in the later analyses. CCS total was excluded from later analyses because Heppner et al. (2006) cautioned against using the total score until further information is known about the meaning of the score.

The results also indicated that PF-SOC was associated with PSI ($r = -.66, p < .001$) such that more problem resolution with problem-focused activities was related to a more positive problem-solving appraisal. Similarly, there was a significant association between ARS and PF-SOC ($r = .29, p < .001$) as well as between ARS and PSI ($r = -.33, p < .001$). That is, more perceived helpfulness of acceptance, reframing, and striving coping was related to greater problem resolution and a more positive problem-solving appraisal. ARS was also found to be significantly related to other CCS factors and the total CCS (r s ranged from .33 to .91, $p < .001$).

Moreover, EP was found to be related to PF-SOC ($r = -.52, p < .001$), PSI ($r = .46, p < .001$), and ARS ($r = -.23, p < .001$), as well as to ECBI ($r = .76, p < .001$). That is, more emotional problems are associated with less resolution with problem-focused coping, a more negative problem-solving appraisal, less helpfulness of acceptance, reframing, and striving activities, and more hindrance by career barriers. Conversely, E-SWLS was related to PF-SOC ($r = .18, p < .001$), PSI ($r = -.23, p < .001$), and ARS ($r = .16, p < .001$), as well as to ECBI ($r = -.12, p < .001$). In other words, greater life satisfaction was associated with more resolution with problem-focused coping, a more positive problem-solving appraisal, higher perceived helpfulness of acceptance, reframing, and striving coping, and less hindrance by career barriers. The results also showed EP was related to E-SWLS ($r = -.35, p < .001$) such that more emotional problems are associated with less life satisfaction.

Preliminary Analyses

First, the regression assumptions of linearity, homoscedasticity, and normality (Cohen, Cohen, West, & Aiken, 2003) were first examined. The results indicated that there was no violation of the assumption of linearity or residual homoscedasticity. The skewness in the residuals ranged from $-.23$ to $.75$ ($ps > .05$) and the kurtosis of the

residuals ranged from -.92 to .26 ($ps > .05$). These results indicated that there was no statistically significant departure from normality, which met the residual normality assumption in the regression analysis.

Next, we examined whether all the main variables (i.e., ECBI, PF-SOC, PSI, ARS, EP, and E-SWLS) varied as a function of participants' gender and university status by performing MANOVA analyses. The preliminary analysis indicated that significant results were found (Pillai's Trace = .13 to .24, $F = 1.87$ to 5.18 , all $ps < .01$). Gender was not a significant predictor to EP and E-SWLS ($p > .05$) and there was not a significant interaction between Gender and ECBI ($p = .93$). On the other hand, University Status was a significant predictor of EP and E-SWLS ($p < .05$), although there was not a significant interaction between University and ECBI ($p = .27$ to $.71$). Hence, Gender was not included in the regression analyses and University Status was treated as a covariate.

Analyses of Hypotheses

Frazier, Tix, and Barron (2004) recommended that predictor and moderator variables first be standardized or centered before computing the analyses to reduce multicollinearity. Thus, ECBI, PF-SOC, PSI, and ARS were centered. University Status was effect coded.

Hierarchical regressions were conducted to examine the three sets of hypotheses. Missing values were omitted from the analyses. In Step 1, University Status was entered as a covariate variable. Results indicated that University Status accounted for 3% of the variance in EP and 5% of the variance in E-SWLS. University Status was found to significantly predict both outcome variables. Specifically, HUST and CCNU were significantly different from the other universities on several of the variables.

In Step 2, ECBI was entered as a predictor to test Hypothesis 1; that is, greater career barriers impediments would be associated with more emotional problems and lower levels of life satisfaction. Results indicated that ECBI was a significant predictor and it accounted for an additional 6% of the variance in EP, and an additional 1% of the variance in E-SWLS. In other words, ECBI uniquely predicted EP and E-SWLS above and beyond University Status. Hypothesis 1 was supported.

In Step 3, the dispositional coping style (DC; which combined PF-SOC and PSI [items were reverse scored]) was entered as a block to test Hypothesis 2a; that is, more positive levels of dispositional coping would be associated with fewer emotional problems and higher levels of life satisfaction. Results showed that DC was a significant predictor which accounted for an incremental 21% of the variance in EP, and 3% in E-

SWLS. In other words, PF-SOC and PSI together uniquely predicted EP and E-SWLS above and beyond ECBI and University Status. Hypothesis 2a was supported.

In Step 4, all the interaction terms were entered to examine Hypothesis 3a of the study; that is, there would be an interaction between dispositional coping and external career barriers in predicting emotional problems and life satisfaction. Results suggested that there was a significant moderation effect of DC on the relationship between ECBI and EP, and the two-way interaction term accounted for an additional 1% of the variance in EP. Chaplin (1991) reported that it was typical for interaction terms to account for about 1% to 3% of the variance in social science research. On the other hand, there was not a statistically significant moderation effect of DC on the relationship between ECBI and E-SWLS. Thus, Hypothesis 3a was partially supported.

Simple effect analyses were conducted to explore the nature of the two-way interactions. Following Aiken and West's (1991) recommendations, one standard deviation below and above the mean for predictor and moderator was used to plot the variables and to test the statistical significance for each of the simple slopes. In Figure 1, the result indicated that the relation between ECBI and EP was positive and significant at low levels of DC strategies ($B = .06, \beta = .37, sr^2 = .37, p < .001$), but was not significant

at high levels of DC ($B = .01$, $\beta = .09$, $sr^2 = .09$, $p > .05$). In other words, as the hindrance of external career barriers increased, Chinese senior college students who reported low levels of dispositional coping strategies were more vulnerable to emotional problems. Conversely, those who reported high levels of dispositional coping, even when the hindrance of career barriers was high, were less vulnerable to emotional problems.

Similar regression analysis was conducted to test Hypothesis 2b and 3b with DC being replaced by situation-specific coping ARS. It was predicted that more helpfulness of situation-specific coping strategies would be associated fewer emotional problems and higher levels of life satisfaction, and there would be an interaction between situation-specific coping and external career barriers in predicting emotional problems and life satisfaction. Table 6 summarized the results. As before, the findings suggested that ECBI predicted both outcome variables, and accounted for an additional 5% of the variance in EP, and 1% of the variance in E-SWLS above and beyond University Status. ARS was found to predict both outcome variables, and accounted for an incremental of 4% of the variance in EP, and 1% of the variance in E-SWLS over and above ECBI and University Status. However, there was no interaction effect between ECBI and ARS. Thus, Hypothesis 2b was supported but Hypothesis 3b was not.

In addition, another set of analyses were conducted to test Hypothesis 2c and 3c where the two dispositional coping inventories (PF-SOC and PSI) were combined with the situation-specific ARS coping strategies forming a broader, encompassing coping variable (COPE) replacing DC and ARS. It was hypothesized that higher levels of dispositional and situation-specific coping together would be associated with fewer emotional problems and higher levels of life satisfaction, and there would be an interaction between dispositional and situation-specific coping together and external career barriers in predicting emotional problems and life satisfaction. Following similar steps as above, the regression analysis was re-run. Table 7 summarized the results. Specifically, the results again revealed that ECBI was a significant predictor to EP and E-SWLS. In addition, COPE was found to be a significant predictor of EP and E-SWLS, and it accounted for 20% of the variance in EP and 3% of the variance in E-SWLS. Thus, adding the situation-specific ARS did not add more variance to the regression equation, but rather resulted in a loss of variance. There was a significant interaction between ECBI and COPE on EP. However, there was only .4% of the variance added in the EP by the interaction term. In sum, Hypothesis 2c was supported and Hypothesis 3c was partially supported.

Discussion

The first purpose of the study was to examine whether dispositional and/or situation-specific coping strategies were significantly related to emotional problems and life satisfaction in a large sample of mainland Chinese college seniors. The results showed that dispositional coping was a strong indicator of emotional problems and life satisfaction among Chinese college job seekers. In other words, those who used high levels of dispositional coping experienced fewer emotional problems and greater life satisfaction. This finding supports and extends the existing literature on dispositional coping in relation to mental health in another cultural context. Specifically, problem-focused style of coping and problem-solving appraisal have been found as predictors of various psychological adjustment indices (e.g., anxiety, depression, anxiety, physical symptoms, somatization) (Cham & Gan 2008; Heppner et al., 2004; Tian & Heppner, 2008; Wei, Heppner, & Mallincrodt, 2003) and well-being (e.g., life satisfaction) (Chang, 2011; Chang et al., 2011; McKee, 2000; Williams-Rice, 1995). In this study, problem-focused coping and problem-solving appraisal predicted 21% of the variance in emotional problems and 3% of the variance in life satisfaction. In other words, Chinese college students who utilized more problem-focused coping and possessed higher

problem-solving appraisal tended to experience fewer emotional problems and report greater life satisfaction during their job search. This study also clearly suggests that dispositional coping, specifically problem-focused style of coping and problem solving appraisal, are relevant constructs in the mainland Chinese cultural context. The finding was corroborated by Cham and Gan (2008) and Tian and Heppner (2008) in that dispositional coping (e.g., PF-SOC, PSI) was endorsed in the mainland Chinese culture and has implications for Chinese' psychological adjustment.

In addition, the results indicated that situation-specific coping strategies (e.g., ARS) were associated with emotional problems and life satisfaction, which was consistent with the results from Siu and Chang (2011). The finding supported the arguments by Heppner et al. (2006) and Carver and Scheier (1994) that situation-specific coping plays an important role in human beings' adjustment and well-being. Specifically, our study revealed that ARS contributed 4% of the variance in emotional problems and 1% of the variance in life satisfaction above and beyond external career barriers. In other words, Chinese college students not only utilized ARS coping strategies but also found them helpful in resolving job-search stress. Those who reported more helpfulness in the ARS strategies tended to experience fewer emotional problems and greater life

satisfaction. It is evident that accepting stressful events, reframing the meaning of them, and being persistent are culturally appropriate and effective strategies that had positive impact on Chinese participants' psychological adjustment and well-being.

Moreover, in line with Siu and Chang (2011), our study found that using more family support strategies was associated with fewer emotional problems and greater life satisfaction. It is consistent with the Chinese cultural values emphasizing interpersonal harmony and filial piety in that an individual's psychological adjustment and well-being have close relationship with their families. In addition, religious and spiritual activities which were only used by half of the participants were not helpful in reducing the participants' emotional problems. It is not surprising that RS did not have a significant impact on the students' psychological adjustment due to the country's eradication of institutional religions during the Cultural Revolution between 1966 and 1976. Majority of the mainland Chinese populations may identify with folk beliefs, but not religion or spirituality. The lack of significant association between AD and EP and E-SWLS was interesting. Such result suggested that avoidance and detachment coping behaviors which were commonly believed to result in poor psychological adjustment in the Western culture, might need to be interpreted with caution in another cultural context. The finding of this

study implied that Chinese college seniors used AD coping behaviors during job search; some found them helpful while others did not; and the impact of using such coping strategies varied. Another interesting finding was that those who found PEO strategies helpful reported fewer emotional problems and greater life satisfaction. Perhaps, the confidentiality and anonymity nature of the PEO coping strategies provided the Chinese participants with a mental break or more space that were helpful to them, when job-search is an event that receives a lot of attention from their family and friends that could turn into pressure in their cultural context.

The second purpose of the study was to examine whether external career barriers was significantly related to emotional problems and life satisfaction. The results indicated that Chinese college students who felt more hindered by the external career barriers tended to experience more emotional problems and less life satisfaction. This finding is particularly meaningful to mainland Chinese job-seekers in that the ECBI only assesses environmental impediments present during the job search process specifically in the mainland Chinese society. As such, these results shed light on the key contextual factors contributing to Chinese college seniors' job-search stress and how those factors affected the participants' psychological adjustment and well-being. This study extended the career

literature in understanding not only contextual career barriers that are often functionally related to but conceptually distinct from detrimental person factors (Lent et al., 2000), but also the specific environmental impediments in the job search process.

The third purpose of the study was to examine the moderation effects of coping, dispositional and/or situation-specific coping, on the relations between external career barriers and emotional problems and life satisfaction. The results suggested that dispositional coping was a significant moderator on emotional problems, supporting Heppner et al.'s (2004) postulation that problem-solving plays a moderating role on various psychological adjustment indices (e.g., depression, physical health). It makes intuitive sense that when a person lacks internal resources (e.g., dispositional coping), he or she may be more vulnerable to the impact of environmental factors (e.g., external career barriers) and more likely to suffer from emotional difficulties. When hindrance of external career barriers grew, those who reported lower levels of dispositional coping strategies (e.g., problem-focused coping and problem solving appraisal) tend to experience an increase in emotional problems. In this study, when the job-search stress was present and increased, the Chinese senior college students who in general had less problem-resolution and more negative problem-solving appraisal had more difficulties

negotiating the environment compared to those who had more problem-resolution and more positive problem-solving appraisal. This finding also supported Heppner, Cook, Strozier, and Heppner's (1991) study that a more positive problem solving appraisal was related to more engagement in various career planning activities. Moreover, such relationships are similar to Heppner et al.'s (2004) conclusion that ineffective problem solvers are less able to achieve their personal goals and satisfy their needs, and more likely to report psychological maladjustment.

Conversely, situation-specific coping (i.e., ARS) failed to serve as a significant moderator. In other words, the impact of the external career barriers on emotional problems and life satisfaction does not depend on the level of helpfulness of ARS. Perhaps, because the job search is an unavoidable process with specific timelines and practical implications (e.g., financial resources), it is much harder to accept, accommodate to, and/or reframe the meaning of the barriers. Also, since the barriers are external forces that are difficult to alter by individual efforts, participants might find it challenging to have emotional control over them and even question their efficacy to overcome the barriers. In addition, the results indicated that dispositional and situation-specific coping together was a significant moderator on career barriers in predicting

emotional problems. However, the variance (.4%) that was uniquely accounted for by the interaction term was very small and less than predicted by the dispositional coping factors alone. These results again confirm that dispositional coping played a much important role in Chinese college students' psychological adjustment during their job search.

The study revealed that HUST and CCNU differed from the other two universities on several variables. For instance, HUST scored significantly higher, while CCNU scored significantly lower on ECBI total. We suspected that the make-up of the student body at HUST might play a role in that majority of them are in-state students from the in-land province of Henan which is relatively poorer than three other provinces. Those students might have fewer networks in coastal cities where they desired to look for jobs. Financially, they might also come from families who were less able to afford the expenses that they needed during job search.

In sum, the current study suggested that dispositional coping is most powerful in predicting Chinese college job-seekers' emotional problems and life satisfaction. It also indicated that we must consider the interaction between coping and external career barriers as the results revealed that those who used low level of dispositional coping

tended to experience more emotional problems and less life satisfaction when the hindrance of external career barriers increased. In addition, the study found situation-specific coping predicted emotional problems and life satisfaction as well, although there was no interaction effect with external career barriers. Moreover, the results showed the hindrance of external career barriers was a strong indicator of Chinese senior college students' emotional problems and life satisfaction.

It is important to note some of the limitations to the study. First, although this study's sample size was relatively large and included participants from four Chinese universities across China, the generalization of the results to Chinese senior college students in other universities needs to be done with caution. Second, the data collection took place at the end of May, which was towards the end of the participants' senior year in July, which may affect the generalizability as students might have different experiences at the beginning of their senior year when they just started job searching. Third, the participants' degree of job search varied and some of them were admitted to graduate schools by the time of data collection. The variability could affect their reports of the hindrance of career barriers, emotional problems, and life satisfaction. Hence, it is important to replicate the study with a similar sample but at a different time of the senior

year. Fourth, the External Career Barriers Inventory, albeit developed based on a rather thorough literature review, consultation with experts, and pilot studies with Chinese natives, could have its limitations. Conducting focus groups on this topic and collecting more data to examine the factor structure may strengthen the Inventory for future use.

There are several directions for future research. First, this study only looked at the total scores of PF-SOC and PSI as well as one CCS factor, ARS. Wei et al. (2010) reported that reactive coping of PF-SOC and family support of CCS were significant moderators on depressive symptoms, while other factors did not show significant moderation effects. Along with the implication of their study, this study suggested that a meaningful next step is to examine specific factors some of which were reconceptualized (e.g., emotional control in PSI) from the three coping measures and their combination in predicting psychological adjustment and well-being. For instance, previous research reported that PSC mediates the relationship between AAS and psychological distress, which indicates the complexities of coping. Through investigation of individual factors' role and relationship with each other, we may gain important information about coping in the contexts of Chinese culture and job search, which in turn informs theory development and practice. Second, more advanced statistical technique (e.g., SEM) could be utilized to

examine the complexities of coping in relation to career barriers and mental health indices. For instance, constructing a latent coping variable from observed dispositional and situation-specific coping variables in the current study may shed light on the many dimensions of coping and its impact on psychological adjustment and well-being. Third, future research should look at the role of coping in psychological adjustment and well-being in other situations (e.g., cross-cultural adjustment, high school to college transition). It could further our understanding about the relationship between dispositional and situation-specific coping.

There are several clinical implications from the current results. First, practitioners need to understand the important role of coping and its complexities in human behaviors. Since both dispositional and situation-specific coping affect emotional problems and life satisfaction, it would be helpful for practitioners and educators to pay close attention to students' coping strategies, in general and with job search. Considering that individuals may have less power on altering societal barriers and that Chinese tend to believe in adapting to their environment, coping as an internal resource and skills to be learned becomes particularly relevant to Chinese college students. Workshops and support/therapy groups on helping students develop more effective coping strategies

could better equip them to navigate the world of work. PSI and PF-SOC could be used as an assessment and intervention planning tool to provide information about students' problem-solving or coping styles in both individual and group therapy. It is important to note that coping, whether it is dispositional or situation-specific, can be developed by practice. Career counseling is an effective way to support such learning. Lee, Park, and Heppner (2009) also recommended that problem-solving appraisal should be a main target for career intervention as the increase in problem-solving appraisal contributes to the positive changes in career outcomes. In addition, special attention should be given to those whom utilized less active or problem-focused coping strategies and self-perceived as ineffective problem solvers. Current study suggested that they were likely to struggle with more emotional problems during job search. Second, it is important for practitioners to acknowledge and understand the impact of external career barriers on mental health and well-being. Helping students identify and label the environmental barriers they encounter could not only provide students with a context or perspective to understand the challenges they are faced with during the job search, but also has implications for the changes of public policy. For instance, colleges or universities could consider developing career-related programs to prepare students, especially female students, to better cope

with gender related prejudice and discrimination. It would also be helpful to educate the public about the external career barriers encountered by college graduates so that the society could mobilize its resources to help eliminate some, if not all, of the barriers.

In conclusion, this study examined the role of external career barriers and coping in Chinese college students' psychological adjustment and well-being with culturally congruent measures. The results suggest external career barriers, dispositional, and situation-specific coping predicted emotional problems and life satisfaction. In particular, dispositional coping moderates the relationship between career barriers and emotional problems. Those who utilized less problem-focused coping and self-perceived as ineffective problem solvers reported more emotional problems when the hindrance of career barriers increased. The results extended the understanding of coping and stress in the Chinese cultural context. The results also support Moos and Holahan's (2003) recommendation to develop an integrative framework that encompasses dispositional and contextual perspectives on coping, but has not previously received much attention.

Reference

- Adams, A. J. (2000). *Problem focused coping among a deaf population*. Dissertation Abstracts International: Section B: The Sciences and Engineering, 60, 3279.
- Aiken, L., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Albert, K. A., & Luzzo, D. A. (1999). The role of perceived barriers in career development: A social cognitive perspective. *Journal of Counseling & Development, 77*, 431-436.
- Astin, H. S. (1984). The meaning of work in women's lives: A sociopsychological model of career choice and work behavior. *The Counseling Psychologist, 12*, 117-126.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Betz, N. Z., & Fitzgerald, L. F. (1987). *The Career Psychology of Women*. Orlando, FL: Academic Press.

- Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the impact of stressful events. *Journal of Behavioral Medicine, 4*, 139-147.
- Borgen, W. A., & Amundson, N. E. (1987). The dynamics of unemployment. *Journal of Counseling and Development, 66*, 180-184.
- Bouchard, G., Guillemette, A., & Landry-Leger, N. (2004). Situational and dispositional coping: An examination of their relation to personality, cognitive appraisals, and psychological distress. *European Journal of Personality, 18*, 221-238.
- Brown, T. L., Phillips, C. M., Abdullah, T., Vinson, E., & Roberston, J. (2011). Dispositional Versus Situation Coping: Are the Coping Strategies African Americans Use Different for General Versus Racism-Related Stressors? *Journal of Black Psychology, 37*, 311-335.
- Carver, C. S., & Scheier, M. F. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology, 66*, 184-195.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.

- Cham, H., & Gan, Y. (2008). Reliability and validity of Problem-Focused Style of Coping Inventory and its relation between psychological distress. *Chinese Mental Health Journal*, 22, 193-197.
- Chan, D. W., (2001). Dimensionality and correlates of problem solving: The use of the Problem Solving Inventory in the Chinese context. *Behavior Research and Therapy*, 39, 859-875.
- Chang, Y., Lan, Y., Lin, H., & Heppner, P. P. (2011). Psychometric analyses of the Problem-Focused Style of Coping(PF-SOC) with Taiwanese Samples.*Journal of Psychoeducational Assessment*, online first.
- Chaplin, W. E. (1991). The next generation of moderator research in personality psychology. *Journal of Personality*, 59, 143-178.
- Cheung, F. M., Cheung, S. F., & Zhang, J.X. (2004a). Convergent validity of the Chinese Personality Assessment Inventory and the Minnesota Multiphasic Personality Inventory-2: Preliminary findings with a normative sample. *Journal of Personality Assessment*, 82, 92-103.
- Cheung, F. M., Cheung, S. F., & Zhang, J.X. (2004b). What is "Chinese" personality?:

Subgroup differences in the Chinese Personality Assessment Inventory (CPAI-2).

Acta Psychologica Sinica [心理學報], 36, 491-499.

Cheung, F. M., Leung, K., Fan, R., Song, W. Z., Zhang, J. X., & Zhang, J. P. (1996).

Development of the Chinese Personality Assessment Inventory (CPAI). *Journal of Cross-Cultural Psychology*, 27, 181-199.

Cheung, F. M., Leung, K., Song, W. Z., & Zhang, J. X. (2001). *The Cross-Cultural*

(Chinese) Personality Assessment Inventory-2 (CPAI-2). (Available from F. M.

Cheung, Department of Psychology, The Chinese University of Hong Kong, Hong Kong SAR).

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple*

regression/correlation analysis for the behavioral science (3rd ed.). Mahwah, NJ: Erlbaum.

Cook, S. W., & Heppner, P. P. (1997). A psychometric study of three coping measures.

Educational and Psychological Measurement, 57, 906-923.

Crites, J. O. (1969). *Vocational Psychology*. New York: McGraw-Hill.

Diener, E., Emmons, R. A., Larson, R. J., & Griffin, S. (1985). The Satisfaction With Life

Scale. *Journal of Personality Assessment*, 49, 71-75.

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being. *Annual Review of Psychology, 54*, 403-425.

Escoto, E. R. (2004). *The relation between religiosity, ethnic identity, perceived discrimination, and coping responses: A study among Mexican-Americans*. Dissertation Abstracts International: Section B: The Sciences and Engineering, 65, 2092.

Farmer, H. S. (1976). What inhibits achievement and career motivation in women? *The Counseling Psychologist, 6*, 12-14.

Farmer, H. S. (1985). Model of career and achievement motivation for women and men. *Journal of Counseling Psychology, 32*, 363-390.

Faul, F., Erdfelder, E., Lang, A.-G. & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.

Fitzgerald, L. F., & Crites, J. O. (1980). Toward a career psychology of women: What do we know? What do we need to know? *Journal of Counseling Psychology, 27*, 44-62.

Folkman, S. (1984). Personal control and stress and coping processes: A theoretical

- analysis. *Journal of Personality and Social Psychology*, 46, 839-852.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middleaged community sample. *Journal of Health and Social Behavior*, 21, 219–239.
- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, 50, 992–1003.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115-134.
- Gee, D. (2004). *Stress, appraisal, and coping in job search*. Thesis (M.A.), University of Missouri-Columbia, 2004.
- Hackett, G., & Byars, A. M. (1996). Social cognitive theory and the career development of African American women. *The Career Development Quarterly*, 44, 322-340.
- Hamilton, V. L., Hoffman, W. S., Broman, C. L., & Rauma, D. (1993). Unemployment, distress, and coping: A panel study of autoworkers. *Journal of Personality and Social Psychology*, 65, 234-247.
- Heppner, P. P. (1988). *The Problem Solving Inventory (PSI): Manual*. Palo Alto, CA:

Consulting Psychologists Press.

Heppner, P. P., Cook, S. W., Wright, D. M. & Johnson, W. C. (1995). Progress in resolving problems: A Problem-Focused Style of Coping. *Journal of Counseling Psychology, 42*, 279-293.

Heppner, P. P., He, Y., Tsai, C. -L. & Lin, Y. -J (2008). Problem Solving Appraisal. In F. T. L. Leong, (Ed.) *Encyclopedia of Counseling*. Thousand Oaks, CA: Sage.

Heppner, P. P., Heppner, M. J., Lee, D-G., Wang, Y-W., Park, H-J., & Wang, L-F. (2006). Development and validation of a Collectivist Coping Styles Inventory. *Journal of Counseling Psychology, 53*, 107-125.

Heppner, P. P., & Peterson, C. H. (1982). The development and implications of personal problem-solving inventory. *Journal of Counseling Psychology, 29(1)*, 66-75.

Heppner, P. P., Witty, T. E., & Dixon, W. A. (2004). Problem-solving appraisal and human adjustment: A review of 20 years of research using the Problem Solving Inventory. *The Counseling Psychologist, 32*, 344-428.

Ho, S. M. Y., & Cheung, M. W. L. (2007). Using the combined etic-emic approach to

- develop a measurement of interpersonal subjective well-being of Chinese populations. In Anthony D. Ong, Manfred H. M. Van Dulmen (Eds.). *Oxford handbook of methods in positive psychology*. Oxford University Press US.
- Holahan, C. J., Moos, R. H., & Schaefer, J. A. (1996). Coping, stress resistance, and growth: Conceptualizing adaptive functioning. In Zeidner, M., & Endler, N. S. (Eds.), *Handbook of coping : theory, research, applications*. New York : Wiley.
- Kim, B. S. K., Atkinson, B. R., & Yang, P. H. (199). The Asian Values Scale: Development, factor analyses, validation, and reliability. *Journal of Counseling Psychology, 46*, 342-352.
- Kliewer, W. (2008). Coping. In H.E.A. Tinsley (Ed.), *Encyclopedia of Counseling*. New York: Sage.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lee, D., Park, H., & Heppner, M. J. (2009). Do clients' problem-solving appraisals predict career counseling outcomes or vice versa? A reanalysis of Heppner, et al. *Psychological Reports, 105*, 1159-1166.
- Lent, R. W. (2004). Toward a unifying theoretical and practical perspective on well-being and psychological adjustment. *Journal of Counseling Psychology, 51*, 482-509.

- Lent, R. W., Brown, S. D., Brenner, B., Chopra, S. B., Davis, T., Talleyrand, R., & Suthakaran, V. (2001). The role of contextual supports and barriers in the choice of math/science educational options: A test of social cognitive hypotheses. *Journal of Counseling Psychology, 48*, 474-483.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance [Monograph]. *Journal of Vocational Behavior, 45*, 79-122.
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology, 47*, 36-49.
- Lent, R. W., Brown, S. D., Schmidt, J., Brenner, B., Lyons, H., & Treistman, D. (2003). Relation of contextual supports and barriers to choice behavior in engineering majors: Test of alternative social cognitive models. *Journal of Counseling Psychology, 50*, 458-465.
- Liu, Z. (2008). A perceived stress mediating model study about problem-focused styles of coping in university students affect mental health. *Chinese Journal of Clinical Psychology, 16*, 170-172.

- Lopez, S. J., & Janowski, K. M. (2004). The power of positive problem-solving appraisal comments on incremental validity, relationships with adjustment, and clinical utility. *The Counseling Psychologist, 32*, 460-465.
- Luo, H., & Ma, J. (2004). Relation among college student's depression symptom, problem solving appraisal and perceived stress. *Chinese Journal of Clinical Psychology, 12*, 367-368.
- Luzzo, D. A. (1995). Gender differences in college students' career maturity and perceived barriers in career development. *Journal of Counseling & Development, 73*, 319-322.
- Luzzo, D. A., & McWhirter, E. H. (2001). Sex and ethnic differences in the perception of educational and career-related barriers and levels of coping efficacy. *Journal of Counseling & Development, 79*, 61-67.
- Mallinckrodt, B., & Wang, C. (2004). Quantitative methods for verifying semantic equivalence of translated research instruments: A Chinese version of the Experiences in Close Relationships Scale. *Journal of Counseling Psychology, 51*, 368-379.

- McKee, D. A. (2000). Role of family factors, coping resources, and coping responses in predicting life satisfaction among symptomatic HIV-positive adults. *ETD Collection for Fordham University*. Paper AAI9975355.
- <http://fordham.bepress.com/dissertations/AAI9975355>.
- McWhirter, E. H. (1997). Perceived barriers to education and career: Ethnic and gender differences. *Journal of Vocational Behavior, 50*, 124-140.
- Moos, R. H., & Holahan, C. J. (2003). Dispositional and contextual perspectives on coping: Toward an integrative framework. *Journal of Clinical Psychology, 59*, 1387-1403.
- Neville, H. A., Heppner, P. P., & Wang, L. (1997). Relations among racial identity attitudes, perceived stressors, and coping styles in African American college students. *Journal of Counseling and Development, 75*, 303-311.
- Pedersen, P. B. (2006). Knowledge gaps about stress and coping in a multicultural context. In Wong, P. T. P. & Wong, L. C. J. (Eds.), *Handbook of multicultural perspectives on stress and coping*. Springer: New York, New York.
- Philips, M. R., & Pearson, V. (1996). Coping in Chinese communities: The need for a

- new research agenda. In M. H. Bond (Ed.), *The Handbook of Chinese Psychology*. Hong Kong: Oxford; 429-440.
- Ptacek, J. T., Pierce, G. R., & Thompson, E. L. (2006). Finding evidence of dispositional coping. *Journal of Research in Personality*, *40*, 1137-1151.
- Schwarzer, R., & Schwarzer, C. (1996). A critical survey of coping instruments. In Zeidner, M., & Endler, N. S. (Eds.), *Handbook of coping : theory, research, applications*. New York : Wiley.
- Segall, M. H., Lonner, W. J., & J. W. Berry (1998), Cross-cultural psychology as a scholarly discipline: On the flowering of culture in behavioral research. *American Psychologist*, *54*, 1101-1110.
- Siu, A. F., & Chang, J. F. (2011). Coping styles and psychological distress among Hong Kong university students: Validation of the Collectivist Coping Styles Inventory. *International Journal of Advanced Counseling*, *33*, 88-100.
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, *129*, 216-269.

Snyder, C. R. (Ed.) (1999a). *Coping: The psychology of what works*. New York: Oxford University Press.

Somerfield, M. R., McCrae, R. R. (2000). Stress and coping research: Methodological challenges, theoretical advances, and clinical applications. *American Psychologist*, 55, 620-625.

Swanson, J. L., Daniels, K. K., & Tokar, D. M. (1996). Assessing perceptions of career-related barriers: The Career Barriers Inventory. *Journal of Career Assessment*, 4, 219-244.

Swanson, J. L., & Tokar, D. M. (1991a). College students' perceptions of barriers to career development. *Journal of Vocational Behavior*, 38, 92-106.

Swanson, J. L., & Tokar, D. M. (1991b). Development and initial validation of the Career Barriers Inventory. *Journal of Vocational Behavior*, 39, 344-361.

Swanson, J. L., & Woitke, M. B. (1997). Theory into practice in career assessment for women: Assessment and interventions regarding perceived career barriers. *Journal of Career Assessment*, 5, 443-462.

Tian, L., & Heppner, P. P. (2008, August). *Problem Solving Appraisal: Does It Look the Same in China?* In P. P. Heppner (Chair), *The cultural context of coping: Looking*

back and moving forward. Symposium presented at the 2008 annual meeting of the American Psychological Association, Boston, MA.

Tobin, D. L., Holroyd, K. A., Reynolds, R. V., & Wigal, J. K. (1989). The hierarchical factor structure of the Coping Strategies Inventory. *Cognitive Therapy and Research, 13*. 343-361.

Wanberg, C. R. (1997). Antecedents and outcomes of coping behaviors among unemployed and reemployed individuals. *Journal of Applied Psychology, 82*, 731-744.

Wei, M., Heppner, P. P., Ku, T., & Liao, K. Y. (2010). Racial discrimination stress, coping, and depressive symptoms among Asian Americans: A moderation analysis. *Asian American Journal of Psychology, 1*, 136-150.

Wei, M., Heppner, P. P., & Mallinckrodt, B. (2003). Perceived coping as a mediator between attachment and psychological distress: A structural equation modeling approach. *Journal of Counseling Psychology, 50*, 438-447.

Weisz, Rothbaum, & Blackburn (1984). Standing out and standing in: The psychology of control in America and Japan. *American Psychologist, 39*, 955-969.

Welter, T. P. (2008). *Determining the experiences of distance learning instructors as*

- related to stress experienced and unique coping abilities*. Dissertation Abstracts International: Section B: The Sciences and Engineering, 69, 3283.
- Williams-Rice, B. T. (1995). Life satisfaction: Its relationship to cognitive appraisal and coping.
- Wong, P. T. P. & Wong, L. C. J. (Eds.) (2006). *Handbook of multicultural perspectives on stress and coping*. Springer: New York, New York.
- Wong, P. T. P., Wong, L. C. J., & Scott, C. (2006). Beyond stress and coping: The positive psychology of transformation. In Wong, P. T. P. & Wong, L. C. J. (Eds.), *Handbook of multicultural perspectives on stress and coping*. Springer: New York, New York.
- Yue, X. (2001). Culturally constructed coping among university students in Beijing. *Journal of Psychology in Chinese Societies*, 2, 119-137.
- Zeidner, M., & Endler, N. S. (Eds.) (1996). *Handbook of coping : theory, research, applications*. New York : Wiley.
- Zhao, R., Heppner, P. P., Schwab, D. M., Tian, L., & He, Y. (2008, August). A review of the mainland Chinese coping literature: Methodological, measurement, theoretical, and cultural issues. In P. P. Heppner (Chair), *The cultural context of coping:*

Looking back and moving forward. Symposium presented at the 2008 annual meeting of the American Psychological Association, Boston, MA.

陈玲丽, & 刘文 (2008). 生活事件, 社会支持, 应对方式对消极情感, 社会抑制的影响—基于大学生样本的研究. *中国健康心理学杂志*, 16, 1348-1350.

陈瑾, 刘昕远, & 顾宁(2008). 就业压力下大学生心理问题分析及对策研究. *河北经贸大学学报*, 8, 118-121.

高艳玲(2004). 我国应付方式量表研究述评. *株洲师范高等专科学校学报*, 9, 115-118.

林春梅 (2002). 大学生压力应对方式与情绪稳定性的民族差异性. *中央民族大学学报*, 29, 300-305.

刘春华, 强景, & 徐凌忠 (2008). 心理压力应对方式对医学毕业生就业的影响. *世纪桥*, 11, 153-154.

刘秀芬, 黄悦勤, & 李立明 (2000). 大学生人格障碍病例对照研究. *中国心理卫生杂志*, 15, 88-92.

刘宣文, 江帆, 董岩芳(2003). 我国近十年来应付方式研究的回顾与展望. *浙江师范大学学报*, 5, 98-102.

龙建, & 邓毅 (2008). 广州地区医学毕业生应对方式和就业心态调查. *卫生软科学*, 22, 254-275.

- 路红, & 杨晓岚 (2000). 广州高校学生就业压力的调查分析. *广州师院学报*, 21, 54-58.
- 罗伟明 (2006). 医学毕业生消极就业心理现状及其疏导. *浙江中医药大学学报*, 30, 432-433.
- 彭杜宏, 刘电芝, 陈铮, 宋东清, & 王葵 (2008). 大学毕业生的就业压力体验与应对调查. *重庆交通大学学报*, 8, 97-100.
- 单常艳, 张秀秋, & 郭瞻予 (2005). 应付方式研究述评. *辽宁行政学院学报*, 6, 127-128.
- 谭胜国 (2006). 当前大学生就业压力与就业观变化. *北京机械工业学院学报*, 21, 83-86.
- 王伯金, 丁振宾, & 陈勇 (2008). 目前影响大学生心理健康的因素及其对策探讨. *体育科技文献通报*, 16, 76-78.
- 王成 (2005). 大学生压力状况的调查研究. *中国健康心理学杂志*, 4, 311-313.
- 王高洁, & 赵晓伟 (2008). 择业期内大学生应对方式与心理健康的相关研究. *鸡西大学学报*, 8, 62-63.
- 王立浩, & 李兴华 (2006). 大学毕业生就业压力产生原因与对策. *现代企业教育*, 10, 165-166.
- 张建卫, 刘宇新, & 金盏华 (2003). 大学生压力与应对方式特点的实证研究. *北京理工大学学报*, 1, 7-11.

- 张淑华, 郑九华, 孙书华, & 赵星(2005). 失业人员应对方式的研究. *北京师范大学学报*, 7, 60-64.
- 郑少萍, & 陈沙麦 (2001). 大学毕业生择业的心理障碍及调适. *福州大学学报*, 52, 95-97.
- 李恒 (2007). 大学生压力及其应对研究综述. *科技信息*, 9, 16-17.
- 李福华 (1999). 大学生就业心理调查. *健康心理学杂志*, 7, 385-386.
- 李琦, 潘芳, 江虹, 六强, 龚明亮, & 李海 (2004). 大学生就业心理准备中影响其应对方式的相关因素的研究. *中国行为医学科学*, 13, 712-713.
- 刘芳芳, 白丽英, 谢叶鑫, 叶晓云, 吴传赛, & 陈辉 (2008). 不同类型高校大学生压力源及应对策略研究. *中国健康心理学杂志*, 16, 857-859.
- 王渭玲, & 汪勇 (2003). 267 名医科大学生应对方式, 人格与心理健康调查. *中国心理健康杂志*, 2, 118-119.
- 吴小苹, & 陈雪玲 (2006). 高职生应激源, 应付方式与心理健康的研究. *中国健康心理学杂志*, 14, 224-226.
- 余圣陶, 许书评, & 秦丹萍 (2006). 工科院校学生心理压力现状及应对策略的研究. *中国健康心理学杂志*, 5, 568-570.
- 张淑华, & 陈仪梅 (2008). 失业者的认知评价, 应对与心理健康的关系研究. *社会*

心理科学, 23, 145-151.

张林, 车文博, & 黎兵 (2005). 大学生心理压力应对方式特点的研究. *心理科学*, 1, 36-41.

朱鹏鲲, & 陈孔祥(2006). 论高校大学生的就业压力. *合肥学校学报*, 2, 11-14.

Table 1: Factor Loadings of the External Career Barriers Inventory (ECBI)

	Factor loadings				
	F1	F2	F3	F4	F5
23 items ($\alpha = .92$)					
Factor 1: Limited Network (4 items; $\alpha = .88$)					
Limited family connections in cities where I look for jobs		.92			
Limited personal connections in cities where I look for jobs		.87			
Limited family connections to potential job opportunities		.42			
Limited personal connections to potential job opportunities		.41			
Factor 2: Gender Prejudice (3 items; $\alpha = .78$)					
Other people's beliefs that certain jobs are not appropriate for people of my sex		.78			
Experiencing sex discrimination in hiring for a job		.65			
Lack of opportunities in fields dominant by the opposite sex		.62			
Factor 3: Discrimination and Disapproval (6 items; $\alpha = .82$)					
Discrimination due to my marital status		.70			
Discrimination due to my age		.61			
My parents/family don't approve of my choice of job		.58			
My spouse/partner doesn't approve of my choice of job		.54			
Discrimination by employer because I have, or plan to have children		.44			
My friends don't approve of my choice of job		.42			
Factor 4: Limited Opportunities and Resources (8 items; $\alpha = .84$)					
Competitive job market due to the expanded admission to college		.60			
Competitive job market due to the popularity of my major		.54			
Low salary or poor benefits		.52			
Discrimination due to my school or educational background		.50			
Financial constraints during job search		.48			
Lack of job openings in my field		.48			
Lack of channels to obtain job information		.48			
Competitive job market in coast cities		.48			
Factor 5: Field Mismatch (2 items; $\alpha = .86$)					
The outlook for future employment in my field is not promising		.87			
My major is less popular		.83			

Note: F1 = Limited Network; F2 = Gender Prejudice; F3 = Discrimination and Disapproval;

F4 = Limited Opportunities and Resources; F5 = Field Mismatch.

Table 2: Correlations of the ECBI factors

Factors	F1	F2	F3	F4	F5
F1					
F2	.36	1			
F3	.23	.38	1		
F4	.42	.44	.14	1	
F5	.37	.50	.34	.44	1

Note: F1 = Limited Network; F2 = Gender Prejudice; F3 = Discrimination and Disapproval; F4 = Limited Opportunities and Resources; F5 = Field Mismatch.

Table 3: Means, Standard Deviations, Skewness, and Kurtosis of the Variables

Measure	N	M	SD	Skewness	Kurtosis
PFSOC					
Total	813	44.19	6.45	.08	-.16
Reflective	813	18.27	4.49	.07	-.46
Suppressive	813	15.86	2.87	-.75	.24
Reactive	813	9.90	2.61	-.19	-.55
PSI					
Total	813	72.74	9.74	.07	.18
PSC	813	26.93	4.28	-.70	.71
RT	813	25.63	4.16	-.50	.10
EC	813	19.99	4.64	.43	.11
CCS					
Total	790	58.87	18.02	.46	.45
ARS	799	28.39	7.70	.27	.11
FS	794	14.50	5.61	.79	-.16
RS	419	3.18	4.39	.72	.09
AD	776	2.27	4.40	1.04	.98
PEO	677	5.68	4.48	.41	-.03
ECBI					
Total	813	72.93	21.72	.13	-.21
LN	813	13.74	5.22	.07	-.15
GF	813	9.00	3.93	.27	-.52
DD	813	14.74	6.53	-.59	-.38
LOR	813	29.20	8.37	.16	.35
FM	813	6.36	3.20	.39	-.63
EP					
Total	813	23.26	14.83	.75	-.13
IS	813	5.59	3.94	.55	-.39
ANX	813	4.95	4.26	.90	.19
DEP	813	4.12	3.46	1.07	.94
PHY	813	4.18	3.27	.81	-.03
SOM	813	4.66	2.74	.52	-.07
E-SWLS					
Total	813	25.39	8.23	-.14	-.92
Interpersonal SWB	813	13.15	4.49	-.30	-.103
Intrapersonal SWB	813	12.24	4.47	-.13	-.91

Note: PFSOC = Personal Style of Coping; Reflective = Reflective Style; Suppressive = Suppressive Style; Reactive = Reactive Style; PSI = Problem Solving Inventory; PSC = Problem Solving Confidence; RT = Reflective Thinking; EC = Emotional Control; CCS = Collective Coping Style; ARS = Acceptance, Reframing, and Sharing; FS = Family Support; RS = Religious Spirituality; AD = Avoidance and Denial; PEO = Private Emotional Outlet; ECBI = Extended Curve Bases Inventory;

LN = Limited Network; GP = Gender Prejudice; DD = Discrimination and Disapproval; LOR = Limited Opportunities and Resources; FM = Field Match; EP = Emotional Problems; IS = Infirmity and Self-Acceptance; ANX = Anxiety; DEP = Depression; PHY = Physical Symptoms; SOM = Somaticness; E-SWLS = Extended Satisfaction with Life Scale; Interpersonal SWB = Interpersonal Subjective Well-Being; Intrapersonal SWB = Intrapersonal Subjective Well-Being.

Table 4: Zero-Order Correlations among the Primary Variables and Their Internal Consistency Estimates

Variable	1	2	3	4	5	6	7	8	9	10	11
1.ECBI	1										
2.PF-SOC	-.23**	1									
3.PSI	.30**	-.66**	1								
4.ARS	-.21**	.29**	-.33**	1							
5.FS	-.07	.19**	-.17**	.56**	1						
6.RS	-.07	.02	.01	.33**	.29**	1					
7.AD	-.13*	.00	-.04	.44**	.23**	.38**	1				
8.PEO	-.09*	.07	-.09*	.47**	.43**	.29**	.35**	1			
9.CCS	-.19**	.26**	-.28**	.91**	.74**	.56**	.60**	.62**	1		
10.EP	.27**	-.52**	.46**	-.23**	-.16**	.03	.05	-.09*	-.19**	1	
11.E-SWLS	-.12**	.18**	-.23**	.16**	.28**	.14**	-.01	.19**	.19**	-.35**	1
α	.92	.68	.81	.76	.80	.88	.74	.71	.87	.93	.89

Note: ECBI = External Career Barriers Inventory; PFSOC = Personal Style of Coping; PSI = Problem Solving Inventory;

ARS = Acceptance, Reframing, and Striving; FS = Family Support; RS = Religion/Spirituality; AD = Avoidance and Detachment;

PEO = Private Emotional Outlet; CCS = Collectivist Coping Styles; EP = Emotional Problems;

E-SWLS = Extended Satisfaction with Life Scale.

* $p < .05$; ** $p < .001$.

Table 5: Hierarchical Multiple Regression Analyses for the interactions of ECBI and DC Strategies in Predicting EP and E-SWLS

Variable	EP					E-SWLS				
	B	SEB	β	sr ²	ΔR^2	B	SEB	β	sr ²	ΔR^2
Step 1 (Covariate)					.02					.04
University 1	-.03	.01	-.16**	-.12		.39	.08	.21**	.17	
University 2	.04	.01	.18**	.14		-.47	.09	-.23**	-.18	
University 3	-.00	.01	-.01	.01		.10	.08	.05	.04	
Step 2 (External Career Barriers)					.08					.05
ECBI	.04	.01	.24**	.24		-.14	.05	-.09*	-.09	
Step 3 (Dispositional Coping)					.29					.08
DC	.08	.01	.48	.46		.27	.05	.18**	.17	
Step 4 (Interaction)					.29					.08
ECBI x DC	-.01	.01	-.06*	-.06		.05	.05	.03	.03	

Note: ECBI = External Career Barriers Inventory; DC = Dispositional Coping (PFSOC = Personal Style of Coping + PSI = Problem Solving Inventory); EP = Emotional Problems; E-SWLS = Extended Satisfaction with Life Scale.

N = 813. * p < .05; ** p < .001.

Table 6. Hierarchical Multiple Regression Analyses for the interactions of ECBI and ARS in Predicting EP and E-SWLS

Variable	EP					E-SWLS				
	B	SEB	β	sr ²	ΔR^2	B	SEB	β	sr ²	ΔR^2
Step 1 (Covariate)				.02	.03				.04	.05
University 1	-.03	.01	-.16**	-.12		.40	.08	.22**	.18	
University 2	.04	.01	.18**	.14		-.46	.09	-.23**	-.18	
University 3	-.00	.01	-.01	-.01		.09	.08	.05	.04	
Step 2 (External Career Barriers)				.07	.05				.05	.01
ECBI	.04	.01	.23**	.22		-.12	.06	-.08*	-.08	
Step 3 (Situation-Specific Coping)				.11	.04				.06	.01
ARS	-.04	.01	-.20**	-.19		.24	.07	.12**	.12	
Step 4 (Interaction)				.11	.00				.06	.00
ECBI x ARS	.00	.01	.02	.02		-.11	.07	-.05	-.05	

Note: ECBI = External Career Barriers Inventory; ARS = Acceptance, Reframing, and Striving; EP = Emotional Problems; E-SWLS = Extended Satisfaction with Life Scale.

N = 813. * $p < .05$; ** $p < .001$.

Table 7: Hierarchical Multiple Regression Analyses for the interactions of ECBI and COPE in Predicting EP and E-SWLS

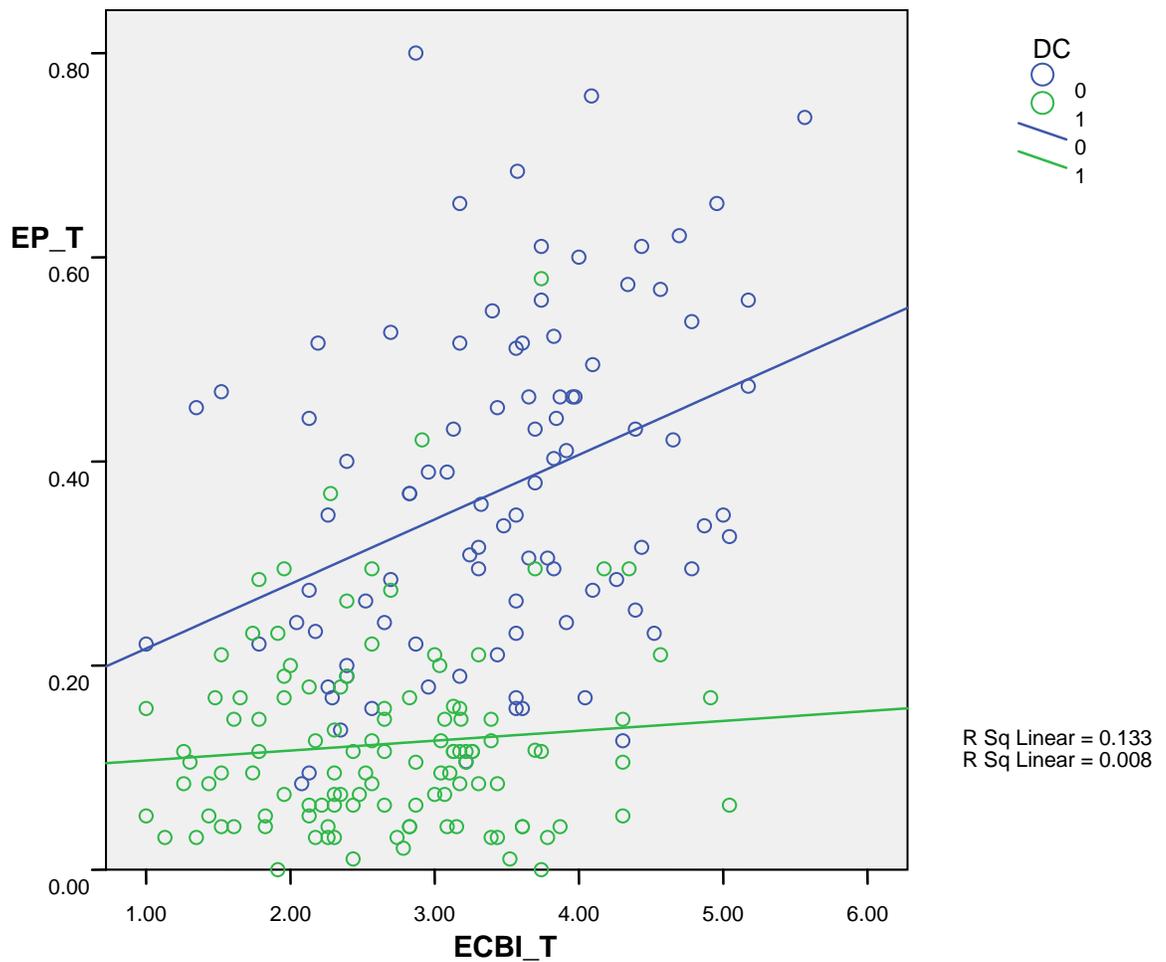
Variable	Emotional Problem (EP)					Life Satisfaction (E-SWLS)				
	B	SEB	β	sr ²	R ² Δ R ²	B	SEB	β	sr ²	R ² Δ R ²
Step 1 (Covariate)					.02 .03					.04 .05
University 1	-.03	.01	-.16**	-.12		.39	.08	.21**	.17	
University 2	.04	.01	.18**	.14		-.47	.09	-.23**	-.18	
University 3	-.00	.01	-.01	-.01		.10	.08	.05	.04	
Step 2 (External Career Barriers)					.08 .06					.05 .01
ECBI	.04	.01	.24**			-.14	.05	-.09*	-.09	
Step 3 (Dispositional and Situation-Specific Coping)					.27 .20					.08 .03
COPE	-.09	.01	-.47**	-.44		.34	.06	.19**	.18	
Step 4 (Interaction)					.28 .00					.08 .00
ECBI x COPE	-.01	.01	-.07*	-.07		.03	.06	.02	.02	

Note: ECBI = External Career Barriers Inventory; COPE = PFSOC = Personal Style of Coping + PSI = Problem Solving

Inventory + ARS = Acceptance, Reframing, and Striving; EP = Emotional Problems; E-SWLS = Extended Satisfaction with

Life Scale.

Figure 1: Interaction Effect between ECBI and DC on EP



Note: ECBI = External Career Barriers Inventory; DC = Dispositional Coping (PFSOC = Personal Style of Coping + PSI = Problem Solving Inventory); EP = Emotional Problems.

Appendix A: Literature Review

This chapter will begin by introducing a significant societal problem in China: college seniors experiencing a tremendous amount of stress in job search due to various social and cultural factors in the Chinese cultural context. The impact of the job-search stress on the Chinese college seniors' psychological adjustment will be discussed. Previous research on coping as a highly relevant construct to stress and coping studies in the Chinese cultural context will be reviewed. The dispositional and situation-specific coping approaches and how to examine them in a Chinese cultural context will be attended to. The impact of coping on psychological adjustment will also be discussed. Later, an important environmental factor-contextual career barrier which has an impact on Chinese college seniors' psychological adjustment will be commented. Furthermore, the relationship between coping and contextual career barriers will be discussed. Finally, the gaps on previous studies of coping and career barriers as well as the importance of performing culturally sensitive studies will be reviewed.

Thus, this chapter will be divided into five sections. First, the Chinese college seniors' job-search stress and its impact on the students' mental health will be briefly reviewed. This section consists of three subsections: (a) Chinese cultural context for job-

search difficulty, (b) job-search difficulty in 2009, and (c) job-search stress and psychological adjustment. Second, previous studies on coping with stress and examining coping in the context of Chinese culture and job search will be reviewed. This section will include three sub-sections: (a) overview of dispositional and situation-specific coping with stress, (b) coping studies in China, and (c) measures of coping related to psychological adjustment and Chinese cultural context. Third, Chinese contextual career barriers will be reviewed. This section will include two sub-sections: (a) previous studies on career barriers, (b) contextual career barriers related to Chinese college seniors' job-search, and (c) contextual career barriers measure. Fourth, the relationship between coping and contextual career barriers will be examined. Finally, the gaps in existing literature on coping and career barriers will be elaborated. This section will be divided into two subsections: (a) research gaps and (b) importance of conducting culturally-conscious studies.

Job-Search Stress for Chinese College Seniors

Chinese Cultural Context for Job-Search Difficulty

Chinese sociocultural context is very relevant to the college seniors' job-search difficulty in China. The history, population, and economic development of China inform

college students as a special interest group over the last thirty years. One of the reasons is because higher education in China was terminated for ten years due to the Cultural Revolution and did not resume until 1977, which led to a unique status of the college students. Another reason is because it is extremely competitive to gain access to college education among thirteen billion Chinese people in the country. For those who succeed in entering college, they automatically gain a lot of attention from the society especially in the earlier years. In addition, Chinese college-educated workers have been playing a significant role in the country's economic development since the country launched the open door policy in 1979. It is often said the country fast economic growth is very much related to growing number of college-educated Chinese. Thus, researchers have showed a lot of interest in Chinese college students' life experiences.

In examining the students' college life experiences, Chinese scholars found that job-search has become an increasing concern to the students and the country's reform (Chen & Liu, 2008; Wang, Ding, & Chen, 2008). As a socialist society, China used to have government assign jobs to individuals and college students were guaranteed for work opportunities. But since the country adopted the socialist market economy approach and expanded its admission rate to colleges and universities, college students have to

adjust from being passive players in their career development process to be active participants in designing and deciding their future. Beginning from early 1990's, the governmental job assignment system was completely abandoned and Chinese college students have since become proactively job seekers in the labor market. Subsequently, they are more vulnerable to the systematic changes (e.g., state-owned enterprises' reform resulting in decreased hiring of new college graduates) in the country. Also, China has the largest population in the world and the imbalance between job opportunities and the volume of job-seekers has always been an issue. Thus, job-search can be very stressful to college students. In fact, research showed that job-search was the most prominent source of stress to Chinese college seniors among other concerns (e.g., study, health, finance, intimate relationship, social relationships, and families) commonly reported by college students (Lu & Yang, 2000; Wang, 2005).

In addition, Chinese cultural values influence college students' job search stress. Since the country implemented one-child policy in 1979, there are more and more Chinese families with only-child. As Chinese are often expected to take care of their parents and/or grandparents financially after the students graduate from college, they would normally feel a great deal of pressure to find good jobs which allow them to return

their parents' financial support through their college education, to show filial piety, and to give face to the family. For students from low to middle socio economic class background, getting a job in their last year of college is particularly pressing because (a) their parents probably exhaust their financial resources by the time they graduate, (b) some students probably have to help their families pay back private loans that their parents borrow to support their college education, and (c) pursuing extremely competitive graduate training is not an option. In essence, job search is a highly important topic to Chinese college students. It also has become an increasing difficult life event for the students because of the volume of the Chinese job seekers, the country's systematic reform, and their expectations for themselves due to the cultural values. It is a topic needed close examination.

Extreme Job-Search Stress in 2009

Chinese college students' job-search stress is also a particular relevant topic in 2009 because of the difficult economy. The worldwide economic recess starting from 2008 has had a significant impact on the economic development and labor market in China. Recently, the China Ministry of Human Resources and Social Security released a report suggesting that the country's overall unemployment rate including workers from

both the suburban and rural areas was approximately 9.4% of the population last year and it is projected to increase to 11% in 2009. It was also estimated that the gap between the number of job-seekers and the current available job opportunities was about 12,000,000.

On the other hand, China is expecting the highest number of college graduates in the history this year—6,100,000 (China Ministry of Education). Despite the country is increasing its admission rate to graduate schools, there are only about 475,000 people who would be accepted (China Ministry of Education). Even all of graduate students accepted are straight from colleges, they only account for seven percent of the graduating Chinese college seniors. Majority of the six million are still active job seekers in the Chinese labor market. In the meantime, there are other 1,500,000 college graduates from previous years who were not able to secure employment also participating in the competition for the limited job opportunities, which makes it worse for the Chinese college seniors in school (China Ministry of Education). Recent media reports indicated that the employment rate of new college graduates across colleges and universities in China remain extremely low by the end of February, 2009. For instance, the Social Survey Institute of China recently conducted a national survey on the employment rate from 1,000 college seniors and found that on average only 35% of the students have

secured employment in February, 2009. In addition, in one of the most developed provinces--Guangdong, there were only 2.2% college seniors who secured employment by the end of January. Clearly, job search is extremely difficult for Chinese college seniors this year and very likely remain as challenging in the next few years. Examining this topic has very practical meaning to the country.

Job-Search Stress and Psychological Adjustment

Job-search difficulty has resulted in a number of psychological problems among the Chinese college seniors. Intuitively, searching for employment can be causing a great deal of psychological distress. Research examining the job-search process in the U.S. indicated that people tended to report negative feelings ranging from discouragement, loss of control, isolation, worthlessness, to hopelessness about job search because their sense of identity and security may be threatened during this period of uncertainty (Borgen & Amundson, 1987; Gee 2004). For Chinese college seniors who are faced with the tremendous amount of job-search difficulty described above, it can be assumed that many of them would also experience a number of negative feelings. In fact, Chinese researchers found that Chinese college seniors reported a wide range of psychological and physical problems that are closely related to job-search stress. For instance, a number of studies

indicated that Chinese college job-seekers across different colleges and majors reported psychological problems ranging from confusion, low self-esteem, mood swings, hostility, obsessive thoughts and behaviors, isolation, anxiety, depression, and other mood disorders (Chen et al., 2008; Liu et al., 2003; Luo, 2006; Peng et al., 2008, Wang, & Zhao, 2008). The students also indicated somatic complaints such as headache, sleep disturbance, decreased memory, attention difficulties, and behavioral problems as a result of the job-search stress (Zhang et al., 2003; Zheng & Chen, 2001). In addition, some college seniors were found to perform self-harm behaviors and some even committed suicide because of the difficulties in getting a job (Luo, 2006; Zhen & Chen, 2001; Wang, 2005). In fact, both empirical studies and media reports suggested that recent years have witnessed an increasing number of suicides among the Chinese college seniors due to the job-search stress (Liu et al., 2008; Wang, 2005). In essence, job-search has become such a stressful event which has a severe negative impact on Chinese college seniors' mental health during their final year of study in college. Continuous investigation of the students' psychological adjustment in job search which will remain a stressful event is extremely important. Studying how other personal and environmental variables relate to

psychological adjustment in job search will help us develop a more sophisticated understanding of people's adaptation to stress as well.

Stress and Coping/Applied Problem Solving

Coping or problem solving, as a major factor in the relationship between stressful events and adaptational outcomes (e.g., depression, psychological symptoms, and somatic illness) (Folkman et al., 1986), has been studied extensively in the field of psychology in the U.S. (Heppner et al., 2006). In fact, even a decade earlier, it was reported that there already were 3,500 scientific papers published on the area of stress and coping (Snyder, 1999). Some of the studies examined individuals' coping with the stress related to losing employment and at-work stress and found that in general coping was associated with workers' psychological distress (Hamilton, Hoffman, Broman, & Rauma, 1993; Wanberg, 1997; Zeidner & Endler, 1996). Yet, how specific coping behaviors related to psychological adjustment indices varied depending on the coping and psychological adjustment measures used in the studies. Nonetheless, it appears that studying coping and problem solving with job-search stress is relevant and important as it helps us better understand Chinese college seniors' adaptation process at a critical stage of their lives.

Thus, this section will review relevant coping/problem solving literature and discuss specific coping and problem solving measures to be employed in the study.

Dispositional and Situation-Specific Coping

Among the sizable coping literature, there are two dominant approaches to studying coping: trait-oriented and process-oriented. The two approaches differ on attending to the significance of psychological and environmental context in which coping takes place (Folkman et al., 1986). Trait-oriented coping researchers who tend to be personality researchers emphasize a coping style or dispositional approach suggesting that people's personality dispositions infer coping responses which are stable over time and relatively consistent across stressors (Folkman et al., 1986; Ptacek et al., 2006). In other words, people develop habitual ways of coping with stress over time and such coping styles influence their responses to new situations (Bouchard et al., 2004). On the contrast, process-oriented coping researchers who often are cognitive psychologists stress a transactional perspective arguing that coping is dynamic in nature and context is critical; particular person and situation variables together shape coping efforts (Folkman et al., 1986; Ptacek et al., 2006). Lazarus and Folkman (1984), the main theorists on this approach define coping as constantly changing cognitive and behavioral efforts to

manage specific external and/or internal demands that are taxing or exceeding the resources of a person. Both approaches have received notable attention from researchers. There are 1400 journal articles on dispositional coping published between 1985 and 2005; there also are a plethora of research on situation-specific coping over the past two decades (Pierce, & Thompson, 2006). In essence, there is ample evidence suggesting that both dispositional and situation-specific coping tap different aspects of general coping and they are related but not redundant constructs (Bouchard et al., 2004). Yet, the relationship between these two types of coping is yet to be fully understood due to limited research. There were even problems with those very few studies in that the same questionnaire with slightly different instructions were used to measure the two distinct constructs which was likely to overestimate the correlations between them (Bouchard et al., 2004). Thus, it was suggested that future research use distinct measures to assess the two distinct constructs (Bouchard et al., 2004).

Operationalization of Coping

How coping is operationalized varies greatly. Schwarzer and Schwarzer (1996) suggested that “coping can be described in terms of strategies, tactics, responses, cognitions, or behavior” and “it includes internal events as well as overt actions” (p. 107).

Three different attempts of classifying specific and endless coping responses have been particularly influential. One of the most popular attempts by Lazarus and Folkman (1984) maintains that coping has two major functions: problem-focused and emotion-focused. Problem-focused coping refers to taking instrumental actions (e.g., problem solving, decision making, direct action) that are directed at oneself (e.g., thinking about solutions) or the environment (e.g., taking direct action to solve the problem, seeking help from others), to change or control the troubled person-environment relationship, despite the successfulness or detrimental impact of the efforts (Folkman, 1984; Kliwer, 2008; Schwarzer & Schwarzer, 1996). Emotion-focused coping refers to using mainly cognitive strategies (e.g., reframing the problem, venting, distracting oneself, and denial) to regulate stressful emotions through altering the meaning of a situation and subsequently enhance one's sense of control over the distress, instead of directly changing the actual situation (Folkman, 1984; Kliwer, 2008; Schwarzer & Schwarzer, 1996). In general, previous coping research found that problem-focused coping is associated with better psychological adjustment while emotion-focused coping is related to poor psychological adjustment (see Zeidner & Endler, 1996). However, such pattern may not necessarily apply to Chinese if the cultural context is taken into consideration. For instance, emotion-

focused coping appears to be relevant in the Chinese cultural context as Chinese are more encouraged to exert control over oneself instead of the environment. People who are more capable of manage their emotions are regarded highly. Thus, emotion-focused coping could be an adaptive way of coping in the Chinese cultural context.

Another attempt by Billings and Moos (1981) suggests that there are two types of coping: active and avoidant. This distinction is based on whether the person uses coping to gain closer contact with or withdraw from the stressful situation (Skinner, Edge, Altman, & Sherwood, 2003). Specifically, active/approach/engagement coping (e.g., cognitive reframing, acceptance, problem solving, emotional regulation) involves a willingness to deal with the stress, either internally or externally; whereas avoidant/disengagement coping (e.g., denial, avoidance, wishful thinking) is characterized by an unwillingness or inability to confront the problem (Kliewer, 2008).

The third major attempt by Weisz and his colleagues (1984) proposed a primary-secondary model of control or assimilative and accommodative coping. Primary control and assimilative coping reflect efforts to influence objective events or conditions or alternate the environment to oneself; whereas secondary control or accommodative coping aim at maximizing one's fit to the conditions or alternating oneself to the

environment (Schwarzer & Schwarzer, 1996; Skinner et al., 2003). Weisz et al. (1984) specifically discussed the relevance of secondary control in collective cultural contexts and suggested that individuals from collective cultural contexts tended to use secondary control to a greater degree and found it adaptive in their such cultural contexts. It is reasonable to assume that it is relevant to Chinese culture as well.

The three categorical systems of coping described above, respectively or together, have influenced the development of a number of coping measures (e.g., Ways of Coping Checklist: Folkman & Lazarus, 1980; COPE: Carver et al., 1989; PF-SOC: Heppner et al., 1995; Coping Strategies Inventory: Tobin et al., 1989) and some have been widely used even across countries. Further review on how the body of coping literature informed or influenced the coping studies in China will be helpful to decide relevant measures of coping to be used in the study.

Coping Studies in China

Studying coping as well as examining both the dispositional and situation-specific coping have been an area of interest to Chinese scholars. Wong and Wong (2006) stated that how people cope with stress is regarded as a universal process because human survival depends on the adaptation to stress. Chinese people encounter a variety of

stressful events in their daily lives with which they cope to eliminate or reduce their psychological distress as well. Interest in studying coping among the Chinese began in 1980s. To date, there have been more than 50 articles on various Chinese groups' (e.g., college students, middle school students, children, teachers) coping published in different Chinese psychological journals. Many of the studies used translated or revised coping measures developed based on the Western culture. Two particular questionnaires—COPE (Carver et al., 1989) and Ways of Coping (WOC; Folkman & Lazarus, 1980) have been widely used in the mainland Chinese population (Lin, 2002; Liu, Huang, & Li; 2000; Zhang, Liu, & Jin, 2003; Zhang, Zheng, Shun, & Zhao, 2005; Wei & Tang, 1996;). Some Chinese researchers also developed specific coping measures based on either situation-specific or dispositional coping theories (see Gao, 2004 for a review of coping measures used in China in the last two decades). It was suggested that both dispositional and situation-specific coping measures were useful to understand how Chinese responded to stressful events (Gao, 2004; Liu et al., 2003). However, similar to the Western literature, there is a lack of studies investigating the relationship between situation-specific and dispositional coping among the Chinese population. As a result, Chinese researchers suggested that it would be useful to explore this area in future studies (Gao, 2004). In

essence, coping is a highly relevant psychological construct to Chinese and have been examined among Chinese college populations as well (Long & Deng, 2008; Wang & Zhao, 2008). It appears that it is appropriate to investigate Chinese college seniors' coping with job-search stress. In addition, it seems an investigation on how Chinese college seniors use both dispositional and situation-specific coping would extend our understanding of the complex construct of coping but also the relationships between the two types of coping.

Chinese Cultural Context and Coping

Cultural context is important to understand coping. Peterson (2006) pointed out that since all behaviors are learned and displayed in a cultural context, it can be expected to influence the experience of stress and coping. Segall, Lonner, and Berry (1998) also stressed that "human behavior is meaningful only when viewed in the sociocultural context in which it occurs" (p. 1101). Moreover, in addition to the discussion of the possible influences of individual (e.g., age, gender, socioeconomic status, temperament or personality, beliefs, and values) and situational (acute vs. chronic, familiar or novel, controllable or not, threat vs. loss, interpersonal) factors on coping, Kliewer (2008) highlighted that the familial, cultural, and social aspects of the environment could also

affect a person's coping. For example, people from cultures that value the needs of the group over the needs of individuals would be more inclined to use coping efforts that take group needs into account.

Clearly, understanding Chinese people's coping needs to take the Chinese cultural context into account. But as Yue (2001) indicated, "coping has been studied extensively from a psychological perspective, but rarely from a cultural perspective" (p. 134), previous coping studies from both Western and Chinese psychology literature seem to lack the efforts in making cultural context explicit in conceptualizing, designing, and discussing the studies. As discussed in the previous section, a number of Chinese coping studies used COPE and WOC. Although the Western-based coping measures have contributed to the understanding of Chinese ways of coping, there also seems to be limitations because of the cultural differences. Western researchers who designed the measures, though they did not explicitly discuss how their cultural backgrounds influence the conceptualization of the measures, would influence the questionnaires with their worldviews. For instance, previous coping studies with the U.S. samples suggested that problem-focused coping and primary-control are positively associated with better psychological adjustment. Is that really the case across different situations in a Chinese

culture? Considering the heavy emphasis on interpersonal harmony and group needs in Chinese cultural context, would attempts to change the environment be always be more helpful? Philips and Philips and Pearson (1996) suggested that “to understand the process of coping in Chinese communities, researchers in Chinese communities must adopt an alternative research agenda that highlights the dynamic, multi-dimensional, contextual, and cultural aspects of the coping process” (p. 440). Thus, to study Chinese college seniors’ coping with job-search stress, it seems extremely important to use culturally sensitive and psychometrically sound coping (both situation-specific and dispositional) and outcomes measures. One situation-specific coping measure based on Chinese cultures appears to be particularly relevant to the current study.

Situation-Specific Coping Measure

Collectivist coping styles. A situation-specific coping measure called the Collectivist Coping Styles Inventory (CCS; Heppner et al., 2006) seems to be a relevant and useful instrument to assess how Chinese college seniors cope with job-search difficulty. Based on Asian values (e.g., the ability to resolve psychological problems, avoidance of family shame, educational and occupational achievement, filial piety, self-control and restraint) (Kim, Atkinson, & Yang, 1999), a culturally relevant model of

primary and secondary control (Weisz et al., 1984), and previous coping research, the CCS was designed to assess collectivist coping with stressful or traumatic life events from an Asian perspective. The CCS was normed on a large group of Taiwanese college students across the Taiwan Island. Because China and Taiwan share similar cultural heritages and have similar cultural values and practices as well as the Asian values used to guide the development of the scale are consistent with mainland Chinese cultural beliefs, it is reasonable to assume that the CCS would be able capture Chinese college seniors' coping activities informed by the cultural context.

The CCS consists of five factors: Acceptance, Reframing, and Striving (ARS), Family Support (FS), Religion/Spirituality (RS), Avoidance and Detachment (AD), and Private Emotional Outlets (PEO) and they were found to be related to Taiwanese college students' psychological adjustment. ARS describes individuals' combined efforts to accept the trauma or accommodate to existing realities (fatalism), reframe the meaning of the trauma in order to maintain interpersonal harmony or maintain control emotional control over the traumatic events. It also reflects persistence, and their perceived efficacy to resolve a particular trauma. FS reflects individuals' seeking of support from family and respected elders because they trust the elders-ancestors' guidance. RS describes

individuals aligning themselves with religious institutions or beliefs or using religion or spiritual activities to cope with trauma. AD refers to individuals' efforts to detach themselves and avoid thinking about the traumatic event for short period of time in order to save face or protect parents from being worried. PEO reflects the use of external means to problem solve such as seeking advice from people outside of regular social network and tension reduction activities while maintaining confidentiality and anonymous. It was found that the Taiwanese college students who reported lower level of psychological distress reported higher helpfulness scores on the ARS and FS, and lower helpfulness scores on the AD and PEO.

Dispositional Coping/Problem-Solving Measures

Clearly, it would be ideal to use psychometrically sound and indigenous-developed instruments to study Chinese dispositional coping or applied problem solving as well. Yet, a review of Chinese and U.S. coping studies indicated that such measures have yet become available. Thus, two relevant dispositional applied problem solving/coping scales: Problem-Focused Style of Coping (PF-SOC; Heppner et al., 1995) and Problem Solving Inventory (PSI; Heppner, 1988) that were developed in the U.S. were selected to investigate that Chinese college seniors' dispositional coping style in the

job search and to expand the understanding of the relationship between situation-specific and dispositional coping. Applied problem solving appears to be a similar construct with coping as both of them “have in essence been depicted similarly as highly complex, often intermittent, goal-directed sequence of cognitive, affective, and behavioral operations for adapting to stressful internal and external problems” (Heppner et al., 2006, p. 107). In addition, the PSI and PF-SOC were selected because PSI has been used to test the construct validity of the CCS and PF-SOC and it was slightly correlated with the CCS and PF-SOC (Heppner et al., 2004; Heppner et al., 1995). Moreover, both the PSI and the PF-SOC began receiving attention from Chinese scholars such as Cham and Gan (2008) and currently, there have been four studies using the PSI (Cham & Gan, 2008; Heppner, Tian, He, & Hou, 2005; Luo & Ma, 2004; Tian & Heppner, 2008) and two studies on the PF-SOC among mainland Chinese population (Cham & Gan, 2008). Both the PSI and the PF-SOC may be useful dispositional measures among more Chinese samples; this research may promote a better understanding of the construct validity and cultural applicability of these scales in China as well as how dispositional coping works in a Chinese cultural context.

Problem-focused style of coping. The PF-SOC (Heppner et al., 1995) is a dispositional measure of coping designed to assess individuals' problem-focused coping efforts associated with progress toward resolution of a problem. It consists of three factors: (a) Reflective Style which refers to a tendency to examine casual relationships, plan, and be systematic in coping, (b) Suppressive Style (SS) which is defined as a tendency to deny problems and avoid coping activities, and (c) Reactive Style that implies a tendency to have emotional and cognitive responses that deplete the individual or distort coping activities. The PF-SOC was found to predict measures of psychological distress (e.g., depression, anxiety, general symptoms of psychological distress). The Reflective factor overlapped with the PSI warrants further examination. Other studies also tested the relationship between PF-SOC and racial identity attitudes (Neville, Heppner, & Wang, 1997), religiosity (Escoto, 2004), type of instructor and gender (Welter, 2008), and its validity in a deaf population (Adams, 2000).

The PF-SOC has been examined in three Chinese college student samples in two studies. Cham and Gan (2008) examined the reliability and validity of the PF-SOC and its relation with psychological distress measured by State-Trait Anxiety Inventory (STAI) and Beck Depression Inventory (BDI) among two Chinese college samples with 268

students in each sample. After deleting two items (“*I will spend time in unrelated chores and activities rather than actions to solve problems*” and “*I react too quickly, which makes problems more complicated*”), the PF-SOC’s factor structure remained similar in the Chinese samples and it has acceptable levels of internal consistency (.73, .70, and .67 for Reflective, Suppressive, and Reactive styles, respectively). The three factors of the PF-SOC were also correlated with the PSI factors as well as with the BDI and STAI. In addition, Liu (2008) used the PF-SOC to examine the relationship between problem-focused style of coping and psychological adjustment measured by SCL-90 and Life Satisfaction Index B (LSIB) among 380 Chinese college students. It was found that the students’ reflective style was significantly positively associated with the score of LSIB and significantly negatively related to scores of SCL-90. And the reaction style and suppressive styles were significantly negatively correlated with the score of life satisfaction and significantly positively correlated with the scores of SCL-90. In essence, PF-SOC appears to be a useful inventory to assess dispositional coping even in China. However, more studies to examine how it functions in the Chinese cultural context are needed and grounding the interpretation of the research findings in the cultural context is important.

Problem-solving appraisal. Similar to the PF-SOC, the Problem Solving Inventory (Heppner, 1988) is a dispositional coping measure that assesses a person's perceptions of his or her problem solving styles rather than actual problem-solving skills. It consists of three factors: (a) Problem Solving Confidence (PSC) which depicts an individual's belief or trust in one's problem-solving ability while engaging in a wide range of problem-solving activities, (b) Approach-Avoidance Style (AAS) which refers to an individual's general tendency to approach or avoid one's personal problems, and (c) Personal Control (PC) which is defined as an individual's perception of one's control over emotions and behaviors when dealing with problems. The PSI has been widely used and tested across many disciplines in over 120 empirical studies and translated into at least eight languages since it was published in 1982 (Heppner et. al, 2004). Results of the studies indicate a pervasive link between the PSI and (a) psychological adjustment indices (e.g., general social and psychological adjustment, depression, hopelessness and suicidality, anxiety and worry), (b) physical health (e.g., physical health complaints and health promotion, physical health complications, and physical limitations), (c) coping, and (d) educational and vocational issues (e.g., test anxiety, career decision making, career planning) (Heppner et. al, 2004). More specifically, on the relationship between

PSI and coping, it was found that positive problem-solving appraisal is associated with problem-focused coping and a negative appraisal has a stronger relation with emotion-focused coping (Heppner, He, Tsai, & Lin, 2008). In addition, problem-solving confidence and the approach-avoidance style appear to be the strongest contributors to reported problem-focused coping activities, while a sense of personal control was particularly related to reported disengaging, denial, and emotion-focused coping (Heppner et al., 2004). Moreover, a positive problem-solving appraisal is also found to be associated with more awareness of the availability of helping resources, higher rates of utilization, and more satisfaction with those resources. In essence, problem-solving appraisal is strongly associated with a variety of coping activities and is predictive of associated cognitive and affective coping operations as well as outcomes of utilizing various helping resources (Heppner et al., 2004).

The PSI has also been examined in four mainland Chinese college student samples in four studies. In Cham and Gan (2008), the PSI was used to test the construct validity of the PF-SOC among 286 Chinese college students. Two factors (PSC and AAS) were found to have good internal consistency estimates (.83 and .85) while PC had acceptable level of internal consistency (.64). Another study by Luo and Ma (2004)

examined the relationships between PSI and psychological outcome measures among 275 Chinese college students. It was found that the PSI total scores and the three subscales scores were significantly associated with depression symptoms measured by a widely used psychological outcome instrument—CES-D. In addition, Heppner, Tian, He, and Hou (2005) studied the psychometric properties of PSI among 395 Chinese college students. The results indicated the two PSI factors and total indicated acceptable levels of internal consistency (.75-.79) while the PC factor's level of internal consistency was low (.58). Heppner et al. (2005) also reported the PSI and the three factors were correlated with the vocational identity scale of the My Vocational Situation and the PSI total was significantly correlated with eight of nine SCL-90 subscales. Another study by Tian and Heppner (2008) tested the PSI structure and its relation to career variables (e.g., career decision making) among a group of Chinese college students. It was found that a new factor structure emerged from a confirmatory factor analysis with three new factors named Problem Solving Confidence, Reflective Thinking, and Emotional Control with alpha coefficients as .76, .72, .67 respectively, and .79 for total PSI. It was also found that the revised PSI mediated the relationship between career locus of control and career decision-making difficulties. The findings from this study suggested that problem-solving

appraisal may play a different role in the Chinese culture and further examination of the original PSI in other Chinese samples is needed to test whether the original factor structure can be retained or a similar factor structure with the revised PSI will emerge. In summary, existing information on the PSI in the Chinese population is limited and the research findings varied. Further investigation on the PSI and its relationship with more culturally sensitive psychological outcome measures could help us better understand how the PSI is associated with Chinese people's psychological adjustment.

In conclusion, the CCS, PF-SOC, and PSI depict different aspects of coping, a complex and relevant construct to people's adaptation to stress. Examining how CCS, PF-SOC, and PSI function in a group of Chinese college job-seekers not only will help gain a better understanding of how people generally cope in a Chinese cultural context but also will extend our knowledge of how individuals' coping influences their psychological adjustment at a career development stage of job-search. In addition, using the CCS, PF-SOC, and PSI in one study will enhance our understanding of the relationship between dispositional and situation-specific coping in the context of Chinese culture and job search.

Contextual Barriers to Chinese College Seniors' Job Search

In addition to coping, environmental factors (e.g., contextual career barriers) could also influence people's adaptational outcome in dealing with stress. Intuitively, environmental barriers impeding a person's job-search could cause psychological distress, although the level of the impact may vary depending on other individuals factors (e.g., personality characteristics, coping, social support). Thus, it seems worth investigating how contextual career barriers relate to Chinese college students' job-search especially we have noted in previous section that some historical, social, and cultural factors could have negative influence on their job-search process. A literature review shows that there is a lack of consistent efforts in studying barriers to college students' job search. In the Western literature, the most relevant conceptualization of such barriers is captured under the large rubric of career barriers and empirical studies on college students' career barriers are very limited. In China, scholars like to use stressors to describe the job-search barriers and conducted majority of the descriptive studies to examine the barriers. They have not presented a theoretical view of the barriers. In addition, considering the importance of theory in guiding empirical studies and the role of cultural context on human behaviors, existing conceptualization of career barriers as relevant to the current

study of job-search barriers and as broad to include both individual and contextual factors will be first presented in this section.

Career Barriers

The conceptualization and definition of career barriers in the Western literature remain unclear and inconsistent. It is a construct that was originally from the literature exploring the gap between women's abilities and achievements and their career development (e.g., Betz & Fitzgerald, 1987; Crites, 1969; Farmer, 1976, 1985; Fitzgerald & Crites, 1980). Career development researchers typically examined perceived as opposed to objectively defined barriers because it is people's perceptions that directly influence their affective, cognitive, and behavioral responses (Swanson & Woitke, 1997). Also from a measurement's perspective, it is more realistic to assess people's perceptions than the true reality (Albert & Luzzo, 1999). Thus, the career barriers literature emphasizes the studies of career-related barriers which individuals believe currently exist or may be encountered in the future which could be based in reality/factual information or not (Albert & Luzzo, 1999).

There are two different and representative voices in the efforts of clarifying career barriers. One of the voices defined career barriers as "thwarting" conditions or events,

either within the person or in his or her environment, which impedes one's career progress (Crites, 1969; Swanson & Tokar, 1991b; Swanson & Woitke, 1997). In other words, the researchers suggested two levels of career barriers: intrapersonal (e.g., self-concept) and environmental (e.g., workplace discrimination). Another voice is represented by Lent et al., (2000). They suggested that person and contextual factors which hamper one's career development do not represent a single, monolithic source of influence and thus, it is necessary to distinguish the two levels instead of combining both intrapersonal/person and contextual/environmental hindrance in one big category of career barriers. Hence, in the Social Cognitive Career Theory, career barriers "generally refers to negative contextual influences, with the understanding that contextual barriers are often functionally related to, yet conceptually distinct from, detrimental person factors (e.g., adverse learning conditions can diminish self-efficacy)" (p. 39, Lent et al., 2000). Other researchers such as Astin (1984) considered perceived and actual barriers as part of the structure of opportunity within his psychosociological model of career choice.

In addition to the difference in researchers' definition of career barriers, previous career barriers studies have also been criticized for other aspects of inconsistency in their conceptualization of career barriers. Lent et al. (2000) indicated that (a) previous career

barriers research is generally vague on the specific time frames when barriers were encountered, and (b) it is problematic to use open-ended questions or structured questionnaires to measure participants' perceived barriers related to general career development instead of specific developmental task (e.g., deciding a major or getting a job). Career barriers researchers increasingly consent that career barriers vary across different developmental tasks (Swanson & Tokar, 1991a; Lent et al., 2000) and suggest to differentiate between barriers encountered in the past, those hampering the individual in the present, and those anticipated in the future (Lent et al., 2000). Despite the recommendations, few studies have attempted to test and clarify the different perspectives of conceptualizing career barriers.

Moreover, career barriers, though initiated a few decades ago, did not receive much attention in most theories of career development and particularly in college populations until Swanson and Tokar's (1991a, 1991b) began examining the types of barriers that college students perceive. Swanson, Daniels, and Tokar (1996) conceptualized "barriers as external conditions and internal states that make career progress difficult" (p. 236). In developing a career barriers inventory that measures potential barriers that might occur and the degree of hindrance of the barriers on one's

own career progress, the researchers found that college students recognized a wide range of internal and external barriers across various stages of their career development such as “getting the first job” and at each stage they encountered some different barriers (Swanson & Tokar, 1991a). The students seemed to perceive job availability, location, connections, financial constraints, their own qualifications, skills, experiences, qualities, or a combination of those as obstacles to getting their first jobs (Swanson & Tokar, 1991a), which is consistent with the findings by Chinese scholars (e.g., Long & Deng, 2008; Yu, Xu, & Qin, 2006). In addition, researchers suggested possible gender differences in individuals’ perceptions of barriers to their career development (cf. McWhirter, 1997; Lent et al., 1994; Luzzo & McWhirter, 2001). As Farmer (1985) theorized in her career and achievement motivation model, women’s career development is significantly affected by competing role priorities and environmental demands. In interviewing both female and male college students’ responses in the studies, it was found that women were more likely to mention barriers as obstacles to their career development (Luzzo, 1995). Although the career barriers studies found little variance explained by gender in general, some indicated that the women varied from men college student participants in perception of specific barriers such as having a harder time getting

hired, experiencing negative remarks (e.g., insults or rude jokes) about their sex, family/social concerns, femininity concerns, limited education or experience, gender role stereotypes, and lack of family support (Swanson & Tokar, 1991b; Luzzo & McWhirter, 2001; McWhirter, 1997).

It is clear that career barriers as a construct needs further examination and clarification (Swanson & Tokar, 1991b; Lent et al., 2001) across different groups or populations to understand the more concrete effects of these influences (McWhirter, 1997). It also seems that little is known about environmental constraints to individuals' career aspirations and mental health in addition to "attitudinal or self-concept factors" (Swanson & Tokar, 1991a). Albert and Luzzo (1999) suggested that future research evaluate perceived barriers on the basis of age, social class, level of education completed, cultural worldview, sexual orientation, and disability status. Following Lent et al.'s (2000) suggestion to avoid confounding perceived intrapersonal career barriers (e.g., "not feeling confident about myself in general", "unsure of what I want out of life" as described in the Career Barriers Inventory by Swanson and Tokar (1991b)) with self-efficacy (e.g., confidence in completing a specific educational requirement or job duty as described in the self-efficacy scale by Lent et al. (2003)), it seems an important first step is to

investigate environmental career barriers alone particularly in a specific sociocultural context (e.g., mainland Chinese cultural context) that is less familiar. Examining the contextual barriers also helps to facilitate our understanding of the environmental impact on individuals' psychological adjustment and well-being. In addition, it is critical to focus the studies of career barriers to a specific group who is dealing with a specific career task within a specific time frame because we know so little about this area. Such conclusion informs the focus of current study on career barriers is to include: (a) fourth-year Chinese college students who have actively participated in job-search activities in China between September 2008 and June 2009, not including those whose sole purpose is to enter graduate school after college and did not engage in job-search, (b) the students perceive and/or have experienced barriers in their job search, and (c) the barriers are environmental/contextual-based and not related to the person's individual personality or ability. In the next section, a review of the Chinese research findings on the contextual barriers related to Chinese college seniors is provided.

Contextual Barriers Encountered by Chinese College Job-Seekers

Chinese researchers found that Chinese college seniors encounter and/or perceive a wide range of contextual barriers (a.k.a., environmental stressors) hampering their job

search, which lead to their increased degree of psychological distress (e.g., Wang, 2005; Wang & Zhao, 2008; Liu, Qiang, & Xu, 2008; Chen, Liu, & Gu, 2008). Most of the studies were descriptive studies using self-developed measures with very few linking the barriers to specific psychological adjustment indexes. But from the studies, there are several salient job related environmental impediments to the students. First, Chinese job market constraints are severe for new college graduates. A number of reports pointed out that the reform (e.g., simplifying organizational structure, increasing work efficiency) of two major entities—Chinese state-owned enterprises and governmental branches which used to hire a large number of new Chinese college graduates is causing a shrunken job market for the college students (Tan, 2006; Wang & Li, 2006; Lu & Yang, 1999). While college admission continues to expand since 1999, there is also a competing labor force rapidly growing from rural and suburban areas of China entering the national labor market due to the country's fast industrialization. This group of job seekers who tend to be less educated, have lower expectations for salary and benefits, and more experienced, sometimes are preferred over college students by employers (Zhang, Liu, & Jing, 2003). In addition, majority Chinese workers were found to prefer working in more developed coast cities (e.g., Shanghai, Shenzhen) in China which makes those areas extremely dense

with job-seekers and hard to find a job. Zhu and Kong (2006) found that 64% of their college participants (N = 1787) reported a strong desire to work in coast cities while only 3% expressed interest in remote areas. Moreover, the difficult economic situation worldwide which results in increasing lay-offs is limiting job opportunities for the Chinese college seniors.

Second, Chinese college job-seekers are restricted by their resident status, financial situation, and limited social network. Resident status (a.k.a. *Hu Kou*) refers to a residence certificate that is granted to families or individuals by the Chinese government to record their citizenship in a specific area. Such certificate is a very important document in Chinese people's lives and is particularly relevant to Chinese college job-seekers not only because it is associated with special benefits and access to local resources but also because it is very hard to transfer especially to more developed areas (e.g., Beijing, Shanghai, Shenzhen). Since majority of the Chinese college students tend to prefer finding employment in those areas where there are more job opportunities and offer higher salaries, those who are not natives often experience more difficulties in being employed in those areas (Zhu & Kong, 2006). Sometimes Hu Kou becomes such a barrier to job search that employers can refuse to hire students without the companies' city

residence status, which is similar to the employment situation of internationals in the U.S.

In addition, many of the Chinese college job seekers identified financial constraints as a barrier to their job search (Huang, 2006). It makes intuitive sense because different from American college students who tend to be actively employed throughout college, most Chinese college students rely on their parents' financial support to finish college education. Hence, the college seniors are not financially independent during job search and asking for more financial resources from parents could be difficult for many students especially those who are from low socioeconomic class families. Moreover, Chinese college students' lack of social connections (a.k.a. *Guan Xi*) could also create challenges to their job-search. Leung (2002) pointed out that social connections play a dominant role in Chinese people's daily lives in that *Guan Xi* often times is more important than one's capability especially in job-search. In a study by Zhu and Kong (2006), 92% of the 1787 Chinese college students reported that individuals' or their families' social connections is extremely important on their job search. For students' who or whose families have less social connections both in and outside of one's hometown, it is a severe barrier to the students' job search and makes the process much more difficult.

Third, lack of role models, discrimination, and disapproval from family members also cause difficulties in Chinese college seniors' job search. Chen, Liu, & Gu (2008) suggested that some Chinese college students had difficulty adjusting to the job-selection process due to the remaining effect of traditional job assignment by government and lack of role models to support the students through job search, especially those who are interested in non-traditional professions. In addition, college students encountered various forms of discrimination in labor market. For instance, it was reported that many employers clearly indicated in their job ads that they did not recruit new college graduates or female (Lu & Yang, 1999; Peng et al., 2008; Zhang, Liu, & Jin, 2003; Liu, Qiang, & Xu, 2008). Students from different universities were also found experiencing different treatment from some employers (Zhu & Kong, 2006; Zheng & Liu, 2001). Moreover, in the Chinese cultural context, college students tend to present a collectivistic decision-making style, in that they would consult with their parents throughout the job-search process (Yu, Xu & Qin, 2006). Although families' involvement in one's job search could provide tremendous amount of support to the individual, it could also pose some challenges especially when there are different opinions about where to work and what kind of jobs to seek. Researchers found that some students reported experiencing

tremendous amount of pressure from parents who emphasized high salary and stable job opportunities while the students wanted to take some risks and gain jobs that allow them to realize their potentials (Zhu & Kong, 2006).

In summary, Chinese college seniors are presented with a number of contextual barriers (e.g., job market constraints, discrimination, limited social network) at both societal and interpersonal levels during their job search. The barriers are clearly embedded in the Chinese sociocultural and economic contexts and causing the students a great deal of psychological distress. Apparently, a measure of the Chinese contextual career barriers is needed for the study. An investigation of career barriers related measures found that the most relevant measure that actually tap some aspects of the Chinese contextual career barriers was the external barriers subscales of the Career Barriers Inventory-Revised (CBI-R: Swanson & Tokar, 1996). Among six of the external/environmental barriers subscales, only the one assessing racial discrimination is completely not applicable to the Chinese cultural context, many items of the five other subscales (e.g., job market constraints, disapproval by significant others, difficulties with networking/socialization) appear to be relevant with what Chinese college seniors experience in their job-search. However, despite five of the six external barriers subscales

seem to fit, there are some environmental barriers in the Chinese culture that are not assessed in the CBI-R. Subsequently, additional items will be added to the set of the external barriers subscales from the CBI-R for a more complete assessment.

In conclusion, many Chinese college seniors' reported an array of environmental barriers to their job search and poor psychological adjustment due to the job-search intensity in their transition year from college to the world of work. More systematic efforts on researching contextual barriers related to job-search, their impact on specific mental health indexes, and using or developing culturally sensitive psychological instruments are much needed. In addition, Swanson and Tokar (1991a) noted, "we know little about what compromises individuals face as a result of confronting barriers, and how they cope with such compromises" (p. 104).

Career Barriers and Coping

Career theorists suggest a broader and inclusive conceptualization of individuals' career development in that multiple, potentially compensatory aspects of the objective environment (e.g., economic conditions, parental behaviors, peer influences) as well as how people make sense of and respond to what their environment provides ought to be taken into consideration (Lent et al., 2000). Examining how individuals cope with the

job-search barriers (e.g., contextual career barriers) seems both theoretically and practically meaningful because it will further our understanding of the person-environment interactions in facilitating or impeding one's course of career development. However, literature on these two very relevant constructs has been quite scattered and studies including coping and career barriers also lack clear theoretical bases. Thus, this section will briefly discuss the linkage between coping and career barriers.

One approach to examine coping with career barriers is through examining individuals' coping efficacy proposed in the SCCT framework. Lent et al. (2000) indicated that since participants in previous career barriers research were asked to supply their perceptions of barriers either in the past or in present, certain qualities of the reporters such as coping/barrier-coping efficacy could affect their perceptions. Coping efficacy was defined as one's confidence in his or her ability to cope with or manage specific, complex and difficult situations. It was suggested that individuals with high levels of coping efficacy tended to engage in efforts to overcome barriers related to a particular goal or objective than those with lower levels of coping efficacy (Albert & Luzzo, 1999). In other words, certain career barriers may not be as detrimental to those who possess higher levels of coping efficacy and thus not very stressful as to those with

lower levels (Albert & Luzzo, 1999). It was further suggested that people with higher coping efficacy might even perceive fewer barriers or would be less likely to define a given environmental condition as a barrier (Hackett & Byars, 1996). Hence, exploring the nature of the relationship between coping efficacy and contextual barriers is warranted and one possible solution is to use separate measures of coping efficacy along with career barriers measures. A couple of studies examined the constructs as suggested and confirmed that there was a significantly negative relationship between coping efficacy and contextual barriers among participants who major in math or science (Lent et al., 2001, 2003). In other words, the participants with higher coping efficacy perceived less barriers in choosing math or science related careers. It is also reasonable to consider general coping playing similar role as coping efficacy in the relationship between contextual barriers and psychological outcome. It is possible that coping may influence the strength of the impact of barriers on psychological distress. In other words, people with more effective coping styles or responses may experience less psychological distress when encountered with similar contextual barriers.

Clearly, there is a great need to further the investigation of career barriers related to coping, especially in a specific cultural context. Using culturally sensitive measures to

clarify the construct of career barriers and coping seems critical. In addition, because previous research tended to measure a mix of internal and environmental barriers (e.g., McWhirter 1997; Swanson & Tokar, 1991a, 1991b; Swanson et al., 1996; Luzzo & McWhirter, 2001), studies using measures only assessing environmental impediments (e.g., CBI-R) are needed. Moreover, various dimensions of coping could be examined through problem solving appraisal, how individuals use their cognitive and behavioral efforts (e.g., collectivist coping styles, problem-focused style of coping, problem-solving appraisal) to manage the stressful job-search process and deal with the career barriers as well as the relationships between coping, barriers, and psychological adjustment and well-being are important to investigate. This study aims to test for the linkages within a group of Chinese college job-seekers. A review of existing studies on how the seniors cope during the job-search process seems helpful to support the rationale for current study and will be presented in next section.

Research Gaps and Purpose of the Study

Coping and Chinese College Seniors' Job Search

Chinese scholars have become increasingly interested in coping in the past decades. In particular, college students have been one of the most frequently used sample

population in studying coping. Although limited, few studies have examined college seniors' coping with stress in searching for employment in China despite the increasing job-search difficulty and mental health concerns for the students. One of the studies by Wang and Zhao (2008) used the revised coping scale that was developed by Folkman and Bond and the SCL-90 to assess the relationships between frequency of coping behaviors and psychological adjustment among 120 Chinese college seniors. The results indicated that Chinese college graduates tended to use three coping strategies: problem-solve, wishful thinking, and help-seeking. They were less likely to use self-blame, avoidance, and rationalization to cope with stress during searching for employment. The study also found significant relationship between problem-solving and depression, psychotics, and compulsiveness in a reversed direction, while self-blame, avoidance, and rationalization were significantly correlated with all of the psychological symptoms (e.g., somatization, depression, anxiety, hostility) measured in SCL-90. There was no significant relationship between help-seeking and SCL-90. The authors reported good internal consistency ($\alpha=.92$) and test-retest reliability ($\alpha=.89$) estimates of the coping scale.

Another study by Long and Deng (2008) used an existing Chinese coping inventory which was revised from Folkman and Lazarus' Ways of Coping Inventory to

investigate 218 medical school graduates' (Note: in China, students enter medical school directly after they graduate from high school and receive a Bachelor's degree in five years) frequency of coping behaviors with barriers in job search. It was found that 66% of the students tended to use problem-solve, 12% used wishful thinking, 10% used help-seeking, 8% used rationalization, 4% used avoidance, and 3% used self-blame. They also found that different groups of students coped differently. Specifically, students trained to become clinical doctors used blaming more often than those non-clinical oriented medical school students. In addition, students who have gained job offers used help-seeking more than those who were still searching for employment. Liu, Zhang, and Xu (2008) also examined medical school seniors' psychological distress and coping in their job search. The authors used a self-developed coping inventory and SCL-90 to measure 744 students' coping and psychological symptoms. The authors indicated that there was gender difference in the students' coping in that female tended to use extroverted coping strategies such as crying and talking to others and scored lower on SCL-90.

Finally, Peng et al. (2008) developed a coping inventory based on the existing coping category system and college graduates' psychological and behavioral characteristics in job search. They used the coping inventory and open-ended questions

on experience of stress to assess 415 Chinese college seniors' stress level and coping styles. They indicated that the students used four different coping styles: pragmatic, ideal, replacing, and quitting. Specifically, pragmatic coping refers to students using self-enhancement, initiating action, adjustment of attitude, and seeking help to buffer their stress and handle the problems in job search. Ideal coping refers to students' insisting on finding their dream job. Replacing coping refers to students prioritizing getting a job over getting a good job in order to avoid the extreme competition in labor market. Quitting coping refers to students giving up their effort in searching for employment. The study reported that college graduates used pragmatic coping strategies most frequently and would also often use idealistic and replacement coping. They also found difference of coping between female and male college graduates, between students from top and non-top regular universities, and between students who were preparing for graduate school entrance exam and who did not. They also noted that female college graduate were less likely to give up because they were more likely to seek social support; students with unpopular (i.e., less demanded in job market) majors used more replacement strategies while those with popular major use idealistic coping; students who might enter graduate school used replacement coping more often.

In summary, four of the above studies published in 2008 suggest that there is an increasing interest to investigate how Chinese college seniors cope in job-search and how coping affect their psychological adjustment. Due to the different coping and psychological outcome measures employed in the studies, the research findings have been inconsistent in terms of how different types of coping (dispositional vs. situation-specific coping) and specific coping responses explained the variance measured by various psychological adjustment questionnaires. However, it is apparent that there was a significant correlation between general coping and psychological adjustment.

A number of the research design and measurement issues were also found in the studies. First, there is a lack of report of the validity and reliability estimates of the coping and psychological outcome measures (Long & Deng, 2008; Zhang & Xu, 2008). Even the study reported validity estimates (Wang & Zhao, 2008), it is unclear whether the authors gained the validity estimates from previous study or their study. Second, the authors did not report whether they factor analyzed the coping and psychological instruments (Long & Deng, 2007; Wang & Zhao, 2008; Zhang & Xu, 2008). Considering all the measures were developed based on the Western culture, at least testing the construct validity with factor analysis is extremely important. Omitting such step leaves

more questions about the findings of the study. Third, all four of the studies used coping measures to assess the frequency of specific coping behaviors. Intuitively, frequency is not equivalent with effectiveness. It seems different coping measures testing both the frequency and effectiveness of individuals' coping responses with stress could give us more information about the role of coping on psychological adjustment. Fourth, although we applaud the Chinese scholars who engaged in developing Chinese coping measures (e.g., Peng et al., 2008; Zhang & Xu, 2008), their reports with omission of important information (e.g., the description of the procedures of developing the coping questionnaire, specific items, factor structure, validity and reliability estimates) made it very difficult to almost impossible to understand what aspects of coping being measured and how valid is the instrument. For instance, Zhang and Xu (2008) generally stated that the students used two types of coping: extroverted and introverted. It is unclear about what extroverted and introverted coping refer to exactly. Last but not the least, there was a lack of discussion on how students' different coping styles influenced psychological adjustment and how coping is interpreted based on Chinese cultural context.

Culturally Sensitive Studies on Coping, Perceived Barriers, Psychological Adjustment, and Well-Being

Continued research efforts on the complex constructs of coping, career barriers are clearly needed. To examine the relationships between these constructs and psychological adjustment is helpful not only to clarify and refine the conceptualizations of coping and career barriers but also to further our understanding of the person-environment interaction on individuals' mental health. There is also evidence which suggests that coping may moderate the relationship between psychological adjustment and stressors (see Zeidner & Endler, 1996). A test of whether coping moderate the relation between contextual career barriers which could be viewed as stressors and psychological adjustment seems needed.

In addition, coping researchers also recommend studies examining the role of coping on people's positive outcome measures such as resilience, growth, and subjective well-being (Holahan, Moos, & Schaefer, 1996; Lent, 2004). Recent years have witnessed an increasing trend of examining both the absence of symptoms of psychological distress and the presence of happiness and life satisfaction in the area of mental health (e.g., Lent, 2004; Diener, Oishi, & Lucas, 2003). Scholars found that "various problem-solving, coping methods (e.g., active, problem-focused strategies) and relationship-enhancing skills have also been linked to indices of well-being or psychological adjustment" (Lent

2004, p. 496). Thus, in addition to outcome measures of psychological distress, measures of well-being such as life satisfaction could also enhance our knowledge about the benefits of the healthy problem-solving appraisal (Lopez & Janowski, 2004) and effective coping.

Moreover, examining the constructs in a specific cultural context is evidently extremely important. Wong et al. (2006) affirmed such trend of coping studies in stating that “given how pervasive and significant coping is, and given that coping likely differs across cultures and contexts, it is important to explore the ways that culture might influence coping” (p. 17). Lent et al. (2000) also stressed that career barriers are influenced by specific context. Thus, using culturally relevant and sensitive measures is necessary and would highly enhance our confidence in the research results and provide more useful recommendations for future research and practice. In conclusion, this study with a nature in exploring a less familiar culture, aims to investigate the relationships between coping, contextual barriers, psychological adjustment, and well-being among a group of highly stressed Chinese college job-seekers through careful selection of culturally relevant measures.

Appendix B1

Demographic Information

Instructions: Please indicate the most appropriate answer for each question.

1. Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female	2. Age: _____	3. Major: _____
4. Ethnicity	<input type="checkbox"/> Han <input type="checkbox"/> Other, Please specify: _____	5. Marital Status	6. Sexual Orientation
		<input type="checkbox"/> Single <input type="checkbox"/> Have a partner <input type="checkbox"/> Married <input type="checkbox"/> Divorced	<input type="checkbox"/> Heterosexual <input type="checkbox"/> Gay/Lesbian <input type="checkbox"/> Bi-sexual <input type="checkbox"/> Other
		7. Residency Location (Hu Kou)	
		Province: _____ City/Town/Village: _____	
8. Number of Siblings	<input type="checkbox"/> Only child <input type="checkbox"/> 1 sibling <input type="checkbox"/> 2 siblings <input type="checkbox"/> 3 or more siblings	9. Parents' Marital Status	10. What is the approximate combined level of monthly income of your parent(s)?
		<input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/> Widowed <input type="checkbox"/> Other	<input type="checkbox"/> Below 1000 RMB <input type="checkbox"/> 1000-2999 RMB <input type="checkbox"/> 3000-4999 RMB <input type="checkbox"/> 5000-6999 RMB <input type="checkbox"/> 7000-8999 RMB <input type="checkbox"/> Equal or above 9000 RMB
Parents' Educational Level		Parents' Occupation	
11. Father: _____	12. Mother: _____	13. Father: _____	14. Mother: _____
1 = Below or completed elementary school 2 = Middle school 3 = High school 4 = Technical school 5 = Associate degree 6 = College degree 7 = Graduate degree		1 = Educational and Professional Occupations 2 = Governmental, executive, managerial occupations 3 = Administrative Support Occupations 4 = Sales and commercial 5 = Services 6 = Farming, forestry, fishing, operators, production, and transportation occupations 7 = Military occupations 8 = Homemaker 9 = Unemployed	
15. Your Degree of Job Search	16. Where do you mostly want to get a job	17. How many interviews have you had during your senior year	18. Have you made a decision on jobs
<input type="checkbox"/> Not at all <input type="checkbox"/> A little <input type="checkbox"/> Moderate <input type="checkbox"/> A great deal	<input type="checkbox"/> Beijing, Shanghai, Zhujiang Triangle Area <input type="checkbox"/> Other big cities <input type="checkbox"/> Small or mid-sized cities <input type="checkbox"/> Rural areas or villages <input type="checkbox"/> Place does not matter	Please specify: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes Please list your job location: _____
		19. How many job offers have you received during your senior year	21. If you are going to graduate school next year and have been accepted, which college/university are you going?
		Please specify: _____	Please specify: _____

Appendix B2

背景状况

作答说明：请在下列符合您的情况的选项上打勾，或者在空白处填写您的回答。

1. 性别	<input type="checkbox"/> 男 <input type="checkbox"/> 女	2. 年龄： _____	3. 专业： _____
4. 民族	<input type="checkbox"/> 汉族 <input type="checkbox"/> 其它民族， 请列出： _____	5. 你现在是	6. 你的性别取向
		<input type="checkbox"/> 单身 <input type="checkbox"/> 有交往对象 <input type="checkbox"/> 已婚 <input type="checkbox"/> 离异	<input type="checkbox"/> 异性恋 <input type="checkbox"/> 同性恋 <input type="checkbox"/> 双性恋 <input type="checkbox"/> 其他
7. 你的户口具体所在地	省： _____ 市/县/乡： _____		
8. 有几个亲兄弟姐妹	<input type="checkbox"/> 0个 <input type="checkbox"/> 1个 <input type="checkbox"/> 2个 <input type="checkbox"/> 3个或3个以上	9. 父母的婚姻状况	10. 你父母的平均月收入之和
		<input type="checkbox"/> 结婚 <input type="checkbox"/> 离异 <input type="checkbox"/> 分居 <input type="checkbox"/> 丧偶 <input type="checkbox"/> 其它	<input type="checkbox"/> 低于 1000 人民币 <input type="checkbox"/> 1000—2999 人民币 <input type="checkbox"/> 3000—4999 人民币 <input type="checkbox"/> 5000—6999 人民币 <input type="checkbox"/> 7000—8999 人民币 <input type="checkbox"/> 等于或高于 9000 人民币
父母亲的教育程度		父母亲的职业	
11. 父亲： _____	12. 母亲： _____	13. 父亲： _____	14. 母亲： _____
1 = 小学以下 2 = 中学毕业 3 = 高中毕业 4 = 中专或技术学校 5 = 大专学历 6 = 大学学历 7 = 硕士或博士研究生学历		1 = 各类专业人员或学术人员 2 = 国家机关党群组织、企事业单位负责人 3 = 办事人员和一般公务员 4 = 商业人员 5 = 服务业人员 6 = 农、林、牧、渔劳动者，或生产、运输工人 7 = 军人 8 = 照看家庭（如家庭主妇） 9 = 失业或无业或离退休	
15. 您找工作的程度	16. 您最想在哪儿找到工作	17. 大四这一年来，您已经进行了多少个面试	18. 您是否已经决定了工作去向
<input type="checkbox"/> 没有 <input type="checkbox"/> 稍微 <input type="checkbox"/> 挺多 <input type="checkbox"/> 极多	<input type="checkbox"/> 北京，上海，珠三角 <input type="checkbox"/> 其它大城市 <input type="checkbox"/> 中小城市 <input type="checkbox"/> 乡镇或农村 <input type="checkbox"/> 地方并不重要	请填写： _____	<input type="checkbox"/> 没有 <input type="checkbox"/> 是的 请列出工作地点： _____
		19. 大四这一年来，您已经收到了多少个工作录取通知？	21. 如果您会继续读研并且已被录取，您即将就读的学校？
		请填写： _____	请填写： _____

Appendix C1

Personal Coping Style Inventory (PF-SOC)

Directions: This inventory includes statements of how some people think, feel, and react when they are faced with problems. The problems are some personal problems that an individual may encounter in his/her daily live, such as depression, conflicts with friends, career choices, marriage or divorce decisions. When you are considering how to cope with these problems, please image success or failure consequences that can potentially happen, and how those consequences will help you with or impede you from solving those problems. Please report how frequently the following statements can happen to you honestly and accurately. Do not answer as if that is how you should act. Please answer based on your real thoughts, feelings and reactions of solving those personal problems. Please read each of the following descriptions carefully, choose those frequencies that you will use to describe how you cope with problems.

Almost Not	Occasionally	Half of the Times	Frequently	Always
----- ----- ----- -----				
1	2	3	4	5

1. I am not quite sure about my thoughts and beliefs of my own problems.
- *2. My actions cannot persist long enough that I can really solve my problems.
3. I will recall the methods I once used to solve similar problems.
- *4. I will acknowledge the cause of my emotions, which helps me identify and solve problems.
- *5. I feel very depressed and so I give up solving my problems.
- *6. I will consider the short-term and long-term results of every plan that may help me to solve my problems.
- *7. I feel anxious when I think about my problems, and I will overemphasize some parts of the problems.
- *8. I constantly feel uneasy about my problems, which tells me that I need to do more work.
- *9. My past feelings will affect my current ways of solving problems.
10. I will spend time in unrelated chores and activities rather than actions to solve problems.
- *11. I will consider my problems before they happen, which helps me to prepare to react before problems occur.
- *12. I will consider my problems systematically.
13. If I don't affirm with others about if my conclusion is correct, I will misunderstand their motivations and feelings.
- *14. In order to identify and solve problems, I will probe into my feelings.
15. I react too quickly, which makes problems more complicated.
- *16. I have great difficulties in concentrating in solving my problems.
- *17. If my first try is not successful, I will have other plans to solve problems.
- *18. I avoid thinking about my problems. (Note: * are the items used in the present study.)

Appendix C2

问题应对风格量表

作答说明：这份问卷内容主要是对人们在试图解决日常生活中的困难和问题时，如何思考、感觉和行动的一些描述。这些陈述描写的是常见的个人问题，例如感到抑郁、与朋友和睦相处、选择一份工作、或者决定结婚或者离婚。当你在考虑如何解决这些问题时，请想一下可能出现的成功或者失败的结果，以及妨碍或者帮助你解决这些问题的因素。请你诚实和准确地报告以下陈述中所描写的行为在你身上发生的频率。你的回答不应基于你认为你应该怎样做，而应基于每一个陈述如何最准确的反应了你在解决个人问题时真正的想法、感觉和行为。有些人会发现有一部分陈述描述了通常情况下他们全部时间所采取的应对，有一些陈述描述的是他们偶尔才会用来应对问题的行为，而另外一些陈述几乎从来不是他们的应对。请你阅读下面每个陈述，并且选择每一项陈述中符合你通常所采取应对问题的行动的频率。

几乎不会	有时如此	有一半的时间如此	常常如此	总是如此
1	2	3	4	5

1. 我并不十分确定自己对遇到的问题想法或理解。
- *2. 我无法坚持到把问题解决。
3. 我会回想曾经用来解决相似问题的方法。
- *4. 我会确认我的情绪的成因，这有助于我确认和解决问题。
- *5. 面临问题我感到如此沮丧，以至于我干脆放弃应付问题的一切努力。
- *6. 我考虑每一个可能帮助我解决问题的方案的短期和长期的结果。
- *7. 遇到的问题的时候我会感到焦虑，并且会过分在意其中某些细节。
- *8. 我会对自己的问题持续地感到不安，这表明我需要做得更多。
- *9. 我以往的感受会妨碍我解决现在的问题。
10. 我把时间花在无关的琐事和活动而不是对问题采取的行动上。
- *11. 在问题出现之前我会考虑其可能性，这使得我可以有所准备。
- *12. 我会全方位的思考我的问题直到得出解决方法。
13. 出现问题时，我会误解当事人的动机和感受，并且不会与当事人查证我的结论是否正确。
- *14. 为了确认和解决问题，我会探求我的感受。
15. 我太急于采取行动，导致自己的问题变得更糟。
- *16. 我不太容易集中精力去解决我的问题(即心不在焉)。
- *17. 我会有备用的方案来解决我的问题，以防首选方案没有奏效。
- *18. 我会逃避，甚至想都不想我的问题。

Appendix D1

The Problem Solving Inventory: Form B (PSI)

Directions: People respond to personal problems in different ways. The statements on this inventory deal with how people react to personal difficulties and problems in their day-to-day life. The term “problems” refers to personal problems that everyone experiences at times, such as depression, inability to get along with friends, choosing a vocation, or deciding whether to get a divorce. Please respond to the items as honestly as possible so as to most accurately portray how you handle such personal problems. Your responses should reflect what you actually do to solve problems, not how you think you should solve them. When you read an item, ask yourself: Do I ever behave this way? Please read each statement and indicate the extent to which you agree or disagree with that statement, using the scale provided. Mark your responses by circling the number on the computer sheet.

Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree
----- ----- ----- ----- -----					
1	2	3	4	5	6

1. When a solution to a problem has failed, I do not examine why it didn't work.
2. When I am confronted with a complex problem, I don't take the time to develop a strategy for collecting information that will help define the nature of the problem.
- *3. When my first efforts to solve a problem fail, I become uneasy about my ability to handle the situation.
4. After I solve a problem, I do not analyze what went right and what went wrong.
5. I am usually able to think of creative and effective alternatives to my problems.
6. After following a course of action to solve a problem, I compare the actual outcome with the one I had anticipated.
- *7. When I have a problem, I think of as many possible ways to handle it as I can until I can't 8. come up with any more ideas.
- *8. When confronted with a problem, I consistently examine my feelings to find out what is going on in a problem situation.
9. When confused about a problem, I don't clarify vague ideas or feeling by thinking of them in concrete terms.
- *10. I have the ability to solve most problems even though initially no solution is immediately apparent.
11. Many of the problems I face are too complex for me to solve.
- *12. When solving a problem, I make decisions that I am happy with later.

13. When confronted with a problem, I tend to do the first thing that I can think of to solve it.
- *14. Sometimes I do not stop and take time to deal with my problems, but just kind of muddle ahead.
15. When considering solutions to a problem, I do not take the time to assess the potential success of each alternative.
- *16. When confronted with a problem, I stop and think about it before deciding on a next step.
17. I generally act on the first ideal that comes to mind in solving a problem.
- *18. When making a decision, I compare alternatives and weigh the consequences of one against the other.
- *19. When I make plans to solve a problem, I am almost certain that I can make them work.
20. I try to predict the result of a particular course of action.
21. When I try to think of possible solutions to a problem, I do not come up with very many alternatives.
22. When trying to solve a problem, one strategy I often use is to think of past problems that have been similar.
- *23. Given enough time and effort, I believe I can solve most problems that confront me.
- *24. When faced with a novel situation, I have confidence that I can handle problems that may arise.
- *25. Even though I work on a problem, sometimes I feel like I'm groping or wandering and not getting down to the real issue.
- *26. I make snap judgments and later regret them.
- *27. I trust my ability to solve new and difficult problems.
- *28. I use a systematic method to compare alternatives and make decisions.
29. When thinking of ways to handle a problem, I seldom combine ideas from various alternatives to arrive at a workable solution.
30. When faced with a problem, I seldom assess the external forces that may be contributing to the problem.
- *31. When confronted with a problem, I usually first survey the situation to determine the relevant information.
- *32. There are times when I become so emotionally charged that I can no longer see the alternatives for solving a particular problem.
33. After making a decision, the actual outcome is usually similar to what I had anticipated.
- *34. When confronted with a problem, I am unsure of whether I can handle the situation.
35. When I become aware of a problem, one of the first things I do is try to find out exactly what the problem is.

Note: * were the items used in the present study.

Appendix D2

问题解决量表: (PSI)

作答说明: 每个人都有不同的方法面对自己的问题。本量表是叙述人们如何面对他们日常生活中的困境。这里所谓的“问题”是指人们有时会经历到的个人问题。例如: 情绪沮丧; 无法和朋友相处, 前途的抉择, 或决定是否要和恋人分手。回答时, 请尽可能诚实地描述你如何处理个人的问题。就是说, 你的答案是反映你“实际上如何做”, 而不是你认为“应该如何做”。回答时, 请问你自己: 我是这样做的吗?

请注意: 每一道题都要回答。 请阅读每一道题, 并用下列的量表指出你同意或不同意每一个句子描述的程度。

非常同意	同意	稍微同意	稍微不同意	不同意	非常不同意
1	2	3	4	5	6

1. 当解决一个问题的方法失败时, 我不会检讨它为什么会失败。
2. 当碰到一个复杂的问题时, 我不会花时间去想办法收集和问题本质相关的资料。
- *3. 当我为解决一个问题所作的第一次努力失败时, 我会对自己处理事情的能力感到不安。
4. 当一个问题解决之后, 我不会去检讨解决问题过程中, 哪些地方做对了或哪些地方做错了。
5. 我通常能设想出一些创新有效的方法来解决这个问题。
6. 当采取行动解决一个问题后, 我会去比较实际的结果与事前的预测有何不同。
- *7. 当我有一个问题时, 我会尽量想出所有可能解决问题的方法去处理它, 直到我无法再想出其他的点子为止。
- *8. 碰到一个问题时, 我会持续的检视自己对这个问题的感受来了解到底发生了什么事情。
9. 当我对问题感到困惑时, 我不会细致的思考来理清自己含糊不清的想法和感受。
- *10. 即使一开始未能立刻找到解决问题的方法, 我仍相信我有能力去解决大部分的问题。
11. 许多我所面对的问题, 对我而言, 往往太复杂而难以解决。
- *12. 解决一个问题过后, 我对我的决定感到满意。。
13. 当面对一个问题时, 我倾向用我第一个想到的方法来解决这个问题。
- *14. 有些时候, 我没有停下来花时间去处理我的问题, 而只是让自己马马虎虎或漫无计划的进行。
15. 在考虑解决一个问题时, 我不会花时间去评估每一个方法成功的可能性。
- *16. 当面对一个问题时, 我会先停下来想想之后, 才决定下一个步骤。
17. 我通常用自己想到的第一个方法去解决问题。
- *18. 当做一个决定时, 我会比较每种方式并权衡轻重。
- *19. 当我做计划解决一个问题时, 我对我的计划行得通挺有信心。
20. 我试着预测自己用以解决问题所采取的行动的效果。
21. 当我试着思考可能解决问题的方法时, 我不会一下子想出许多不同的解决办法。
22. 当试着解决问题时, 我常使用的方法是去回想过去类似的经验。

- *23. 只要有充分的时间与努力，我相信我可以解决大多数我所面对的问题。
- *24. 当面对一个新的情况时，我有信心自己有能力处理可能会产生的问题。
- *25. 即使我已开始处理问题，有时我觉得自己只是在摸索与徘徊，并没有掌握到真正问题的所在。
- *26. 当面对问题时，我匆促做决定而事后感到懊悔。
- *27. 我相信自己具有解决新问题与困难问题的能力。
- *28. 我会全方位地去比较各种解决问题的方式，然后才作决定。
- 29. 当想办法解决问题时，我很少结合各种解决问题的可能性去形成一个可行的方法。
- 30. 当面对一个问题时，我很少评估有哪些外在因素可能造成这个问题。
- *31. 当面对一个问题时，我通常先研究问题的状况来帮助决定哪些是对解决问题有用的信息。
- *32. 有时我会太情绪化，而无法想出其他解决某个问题的方法。
- 33. 做决定后，真实的结果常常和我预测的结果相似。
- *34. 当面对一个问题时，我不确定我是否可以处理好它。
- 35. 当我察觉到一个问题时，我首先会做的其中的一件事情是去发现问题的真正所在是什么。

Appendix E1

Collectivist Coping Styles (CCS)

Directions: This inventory contains statements about people’s ways of coping with job search stress. Please be thinking of the stress when you answer the following questions. Please respond to the following items as honestly as possible to accurately reflect how effective or non-effective this strategy was in helping you to handle the Job-Search Stress. There are no correct, or right or wrong answers.

Note: The following questions are NOT asking how frequently you engage in the various coping activities. Rather, please indicate how much each item helped you toward handling the Job-Search Stress:

Never used this strategy /Not applicable	Used but of no help at all	Used A little help	Used A moderate amount of help	Used A great deal of help	Used A tremendous amount of help
----- ----- ----- ----- -----					
0	1	2	3	4	5

01. Through prayer or other religious rituals.
02. Found guidance from my religion.
03. Followed the guidance of my elders (e.g., parents, older relatives).
04. Believed that I would grow from surviving the stressful event.
05. Waited for time to run its course.
06. Followed the norms and expectations of my family about handling stressful events.
07. Found comfort from my religion or spirituality.
08. Saved face by not telling anyone.
09. Placed trust in my elders’ traditional wisdom to cope with the stress.
10. Pretended to be OK.
11. Analyzing my feelings provided me with ideas about how to proceed.
12. Not vented my negative feelings to some people around me.
13. Avoided thinking about the job-search difficulty for a short time for the peace of mind.
14. Told myself that I could think of effective ideas.
15. Knew that I could ask assistance from my family increased my confidence.
16. Saved face by seeking advice from a professional (e.g., counselor, social worker, psychiatrist) I did not know personally.
17. Shared my feelings with my family.
18. Chatted with people about the job-search difficulty on the Internet in order to gain support.

19. To save face, only thought about the problem by myself.
20. Kept my feelings within myself in order not to worry my parents.
21. Accepted the job-search difficulty as fate.
22. Maintained good relationships with people around me.
23. Actively sought advice from professionals (e.g., counselors, social workers, psychiatrists).
24. Realized that often good comes after overcoming bad situations.
25. Ate in excess (or not eating).
26. Realized that the job-search difficulty served as an important purpose in my life.
27. Thought about the meaning of the job-search difficulty from the perspectives of my religious beliefs.
28. Told myself that I could make my plans and ideas work.
29. As a starting point, tried to accept the job-search difficulty for what it offered me.
30. Through family assistance and support.

Collectivist Coping Styles (CCS), copyright 2006, Puncky Heppner, Mary Heppner, Dong-gwi Lee, Yu-Wei Wang, Hyun-joo Park, and Li-Fei Wang. All rights reserved.

Appendix E2

应对风格量表 (CCS)

作答说明：以下这份量表包含人们解决他们生活中压力时间的方式。大部分的人在他们的生命中曾经受到某种程度的心灵创伤或压力，这些带来压力的事件会引起下列某些但不一定是所有的情绪和反应，如时常哭泣，感觉忧伤，感到无助或无法承受的压力，沮丧，伤痛时间发生时的情景经常在脑海中或眼前掠过，或因此而心事重重等。这份问卷调查的是你处理找工作压力的方式。请尽量诚实的作答，以正确的反应出以下列出的方式是否有效地帮助你应对找工作的压力。在这里没有一定正确或错误的答案。

作答时请使用下列量表指出每一样方式帮你处理找工作压力的程度。如果你从未使用过某种解决找工作压力的方式，请选 0“从未使用过这种方式/这种方式不适用于我的情形”。但是如果你使用了某种方式，并发现它一点帮助都没有，请选 1“使用过但一点帮助都没有”。如果你使用了某种方式并发现它对你有帮助，请想想看并指出它对你帮助的程度，答案可以从 2（有点帮助）到 5（极端的有帮助）。请注意：以下问题并非在问你使用各种应对方式的频率，而是希望你回答每一种方式如果帮助你应对找工作的压力。

从未使用过 这种方式/这种方式 不适用于我的情形	使用过但 一点帮助 都没有	使用过 有点帮助	使用过 中等程度的 帮助	使用过 很大的 帮助	使用过 非常的 有帮助
----- ----- ----- ----- -----					
0	1	2	3	4	5

1. 到庙里烧香拜佛，做祷告或采用其他仪式
2. 从我信仰的神明或宗教中寻求指引和方向
3. 照着较年长的人（比如父母亲或年纪较长的亲戚）所教导的方式去做
4. 相信我能从这次伤痛中走出来并因此而成长
5. 顺其自然
6. 照着我家人处理压力的方式和期望去做
7. 从我的宗教或精神信仰中得到慰藉
8. 不告诉任何人以保全我的面子
9. 相信年长的人在传统上用来处理问题的智慧
10. 假装没事
11. 藉由分析我的感觉来发现自己接下来应该怎么做
12. 不把负面情绪发泄在我周遭的人身上

13. 为了能长久解决我的压力，我会在压力发生后的短时间内先避免面对它
14. 告诉我自己我可以想到有效的方法（来处理找工作的压力）
15. 知道我可以从家人那里得到帮助增加了我（处理压力）的信心
16. 从我个人不认识的专业人员（如心理咨询师，就业指导中心工作人员）那里寻求建议以顾全面子
17. 和我的家人分享我的感觉
18. 为了能获得支持，我在网上和人们讨论找工作的压力
19. 为了顾全面子，我只自己思考这个问题
20. 为了不让我父母担心，我把我的感觉留在心里
21. 接受找工作的压力是正常的
22. 和我周遭的人维持良好的关系
23. 主动从专业人员（如心理咨询师，就业指导中心工作人员）那里寻求协助
24. 相信会否极泰来
25. 吃大量的食物（或者不吃东西）
26. 了解这个压力事件在我生命中有重要的意义
27. 从我的神明或宗教信仰的角度来思考这个压力事件发生的意义
28. 告诉自己我可以贯彻我的计划和想法
29. 刚开始去平复压力时，试着去接受这个压力事件带给我的经验
30. 经由家人的帮助支持（来应对找工作的压力）

Appendix F1

External Career Barriers Inventory (ECBI)

Direction: A "barrier" is a factor that interferes with progress in your job or career plans. This scale measures external barriers that are found in the environment -- for example, job discrimination or lack of social connection. For each of the common barriers listed below, think about how much it hindered your job search. In other words, how much did this barrier interfere with your job-search, or make your job-search difficult? Mark your answers onto the green scanning sheet, using the following scale:

Did not hinder at all	Did hinder somewhat	Completely hindered
1	2	3
4	5	6
7		

1. Discrimination by employer because I have, or plan to have children
2. Limited family connections in cities where I look for jobs
3. Limited personal connections in cities where I look for jobs
4. My spouse/partner doesn't approve of my choice of job
5. Other people's beliefs that certain jobs are not appropriate for people of my sex
6. Experiencing sex discrimination in hiring for a job
7. Discrimination due to my marital status
8. My parents/family don't approve of my choice of job
9. Discrimination due to my age
10. Low salary or poor benefits
11. Financial constraints during job search
12. Discrimination due to my school or educational background
13. Competitive job market due to the popularity of my major
14. My major is less popular
15. The outlook for future employment in my field is not promising
16. Limited family connections to potential job opportunities
17. Limited personal connections to potential job opportunities
18. Competitive job market in coast cities
19. Lack of opportunities in fields dominant by the opposite sex
20. Lack of job openings in my field
21. My friends don't approve of my choice of job
22. Competitive job market due to the expanded admission to college
23. Lack of channels to obtain job information

Appendix F2

外在生涯阻碍量表 (ECBI)

作答说明：“阻碍”指的是干扰到你工作或生涯计划的因素。这个量表测的是环境中存在的外在阻碍，如找工作中受到的歧视或者是缺乏社会关系。对下面列出常见的生涯阻碍，请考虑每个项目对你找工作的阻碍程度。换句话说，每一个选项对你找工作造成了多大的干扰或困难？请根据以下的量尺在答题纸上作答。

完全没有 造成困难	没有 造成困难	基本没有 造成困难	造成一些 困难	造成挺多 困难	造成很多 困难	造成了 极大的困难
----- ----- ----- ----- ----- -----						
1	2	3	4	5	6	7

1. 因为我有孩子或计划要孩子而受到雇主的歧视
2. 家人在我想要找工作的城市缺少社会关系
3. 我本人在想要找工作的城市缺少社会关系
4. 我恋人不同意我的工作/职业选择
5. 他人/社会认为某些工作不适合我的性别
6. 我在求职期间受到性别歧视
7. 因为我的婚姻状态而在求职时受到歧视
8. 我父母或其他家人不同意我的工作/职业选择
9. 求职时因为我的年龄被歧视
10. 工作的薪水或福利太低
11. 我在求职过程中经济上不太宽裕
12. 求职时常常因为我的毕业院校或学历背景而受到歧视
13. 我所学的领域虽是热门，但竞争非常激烈
14. 我所学专业过于冷门
15. 我所学的领域前途不被看好
16. 家人缺少和工作机会相关的社会关系
17. 我本人缺少和工作机会相关的社会关系
18. 大城市就业市场竞争激烈
19. 在以异性为主的职业领域里，自己的就业机会不多
20. 我的专业领域不缺人
21. 我的朋友不同意我的工作选择
22. 大学扩招导致就业市场竞争激烈
23. 我缺少获得工作信息的途径

Appendix G1

Emotional Problems (EP)

		T	F
1.	Often, evil, scary words come into my mind, and I cannot shake them off.	<input type="radio"/>	<input type="radio"/>
2.	I find it hard to concentrate on anything.	<input type="radio"/>	<input type="radio"/>
3.	I frequently feel that I am at a loss for no reasons.	<input type="radio"/>	<input type="radio"/>
4.	There were times that for weeks or even months I did not feel like doing anything because I could not pull myself together.	<input type="radio"/>	<input type="radio"/>
5.	If I have a psychological problem, I will rather go see a doctor (Chinese or Western) and take some medicine than seek counseling or psychotherapy.	<input type="radio"/>	<input type="radio"/>
6.	I am often so indecisive that I have missed many opportunities and incurred losses.	<input type="radio"/>	<input type="radio"/>
7.	My decisions are easily changed due to others' influence.	<input type="radio"/>	<input type="radio"/>
8.	Recently, I feel restless and have difficulty concentrating.	<input type="radio"/>	<input type="radio"/>
9.	Recently, I feel rather weary and have difficulty concentrating due to a lack of vigor.	<input type="radio"/>	<input type="radio"/>
10.	I think I should admit it if I have done something wrong.	<input type="radio"/>	<input type="radio"/>
11.	I do not sleep well and am easily awoken.	<input type="radio"/>	<input type="radio"/>
12.	I seldom get a headache.	<input type="radio"/>	<input type="radio"/>
13.	I seldom have problems with muscle cramp or tremor.	<input type="radio"/>	<input type="radio"/>
14.	I often worry that I will harm myself or other people.	<input type="radio"/>	<input type="radio"/>
15.	Recently, I often think about suicide.	<input type="radio"/>	<input type="radio"/>
16.	When I have to speak up, my mind would go blank, and I cannot think of anything.	<input type="radio"/>	<input type="radio"/>
17.	I usually look down and dare not look people in the eye.	<input type="radio"/>	<input type="radio"/>
18.	During the past few years, I have relatively good health and seldom get sick.	<input type="radio"/>	<input type="radio"/>
19.	I have controlled other people's minds, or my mind has been controlled by others, through electronic waves.	<input type="radio"/>	<input type="radio"/>
20.	I feel I have no control over my future.	<input type="radio"/>	<input type="radio"/>
21.	Everything tastes the same to me.	<input type="radio"/>	<input type="radio"/>
22.	When people show me respect, I should show them more respect in return.	<input type="radio"/>	<input type="radio"/>
23.	I often abandon what I am working on, because I feel I cannot do it myself.	<input type="radio"/>	<input type="radio"/>
24.	Whenever I wash my hands, I feel compelled to wash them over and over again; otherwise I will not feel clean.	<input type="radio"/>	<input type="radio"/>
25.	It seems that no one understands me.	<input type="radio"/>	<input type="radio"/>
26.	I am an overwhelming burden to my family.	<input type="radio"/>	<input type="radio"/>
27.	When in public, I often intentionally speak in a loud voice so as to attract other people's attention.	<input type="radio"/>	<input type="radio"/>
28.	I enjoy telling jokes or stories to friends.	<input type="radio"/>	<input type="radio"/>
29.	I am very confident in my ability.	<input type="radio"/>	<input type="radio"/>
30.	I can be calm and composed all the time.	<input type="radio"/>	<input type="radio"/>
31.	I am very active.	<input type="radio"/>	<input type="radio"/>
32.	Someone has wanted to harm me or kill me.	<input type="radio"/>	<input type="radio"/>
33.	No one in this world cares about me.	<input type="radio"/>	<input type="radio"/>
34.	I would drop what I was originally going to do, if others thinks that it is not worth doing.	<input type="radio"/>	<input type="radio"/>
35.	When in a group of people, I am good at coming up with new ideas.	<input type="radio"/>	<input type="radio"/>
36.	I do not like games that require thinking.	<input type="radio"/>	<input type="radio"/>
37.	When I am about to do something, I often find my hands shaking.	<input type="radio"/>	<input type="radio"/>
38.	I am often bothered by chest pains or heartaches.	<input type="radio"/>	<input type="radio"/>
39.	I think I should admit it if I have done something wrong.	<input type="radio"/>	<input type="radio"/>
40.	My blood pressure is normal.	<input type="radio"/>	<input type="radio"/>
41.	Sometimes my mind is filled with irrelevant thoughts that I feel restless for several days.	<input type="radio"/>	<input type="radio"/>
42.	I felt that I have been directed to do something under hypnosis at least once.	<input type="radio"/>	<input type="radio"/>
43.	If a family member suffers from mental distress and stress symptoms (neurasthenia), I'll buy him/her some dietary supplements.	<input type="radio"/>	<input type="radio"/>
44.	I cry easily.	<input type="radio"/>	<input type="radio"/>
45.	I feel weak all over my body most of the times.	<input type="radio"/>	<input type="radio"/>
46.	I often feel lonely even when I am with many people.	<input type="radio"/>	<input type="radio"/>
47.	I often get a sort of burning, stinging, tingling, or numb feeling in some parts of my body.	<input type="radio"/>	<input type="radio"/>
48.	When my work gets too stressful, I would feel dizzy.	<input type="radio"/>	<input type="radio"/>
49.	I often feel as if my head was being squeezed by a tight belt.	<input type="radio"/>	<input type="radio"/>

		T	F
50.	I have many plans but actually accomplished only a few.	<input type="radio"/>	<input type="radio"/>
51.	Somebody has poisoned my food.	<input type="radio"/>	<input type="radio"/>
52.	My friends respect my opinion.	<input type="radio"/>	<input type="radio"/>
53.	Other people say that I am understanding.	<input type="radio"/>	<input type="radio"/>
54.	I feel that there is value in being alive in this world.	<input type="radio"/>	<input type="radio"/>
55.	I am willing to be the initiator or leader when I am doing something.	<input type="radio"/>	<input type="radio"/>
56.	I often feel that I have to face so many complicated problems which I cannot overcome.	<input type="radio"/>	<input type="radio"/>
57.	I am as healthy as people of my age.	<input type="radio"/>	<input type="radio"/>
58.	I do not have difficulty keeping my balance when walking down the street.	<input type="radio"/>	<input type="radio"/>
59.	I seldom feel dizzy.	<input type="radio"/>	<input type="radio"/>
60.	I think having a mental illness is a shameful matter.	<input type="radio"/>	<input type="radio"/>
61.	My mother is (was) a good person.	<input type="radio"/>	<input type="radio"/>
62.	I become anxious whenever I have to go to a place where there are many people.	<input type="radio"/>	<input type="radio"/>
63.	I have a natural ability to influence others.	<input type="radio"/>	<input type="radio"/>
64.	I find it easy to concentrate my attention on one task.	<input type="radio"/>	<input type="radio"/>
65.	I feel I have suffered so many grievances but can turn to nowhere to complain.	<input type="radio"/>	<input type="radio"/>
66.	There is a constant ringing or buzzing sound in my ears.	<input type="radio"/>	<input type="radio"/>
67.	Sometimes when I am with friends, we will take some stimulants to get high.	<input type="radio"/>	<input type="radio"/>
68.	I feel a shortness of breath even when I am sitting down.	<input type="radio"/>	<input type="radio"/>
69.	When people show me respect, I should show them more respect in return.	<input type="radio"/>	<input type="radio"/>
70.	I cannot eat anything for several days after quarreling or being scolded.	<input type="radio"/>	<input type="radio"/>
71.	Eating too much foods that are "hot" and irritable in nature causes people to feel agitated.	<input type="radio"/>	<input type="radio"/>
72.	I feel that I am useless.	<input type="radio"/>	<input type="radio"/>
73.	I do not have constipation.	<input type="radio"/>	<input type="radio"/>
74.	I really admire those people who are good at getting themselves into the limelight.	<input type="radio"/>	<input type="radio"/>
75.	I really admire those people who are good at getting themselves into the limelight.	<input type="radio"/>	<input type="radio"/>
76.	I have never felt tired or disgusted with life.	<input type="radio"/>	<input type="radio"/>
77.	It does not matter to me if people like me or not.	<input type="radio"/>	<input type="radio"/>
78.	I frequently suffer from insomnia.	<input type="radio"/>	<input type="radio"/>
79.	I seldom have problem with my stomach.	<input type="radio"/>	<input type="radio"/>
80.	I always feel as if I sort of did something wrong.	<input type="radio"/>	<input type="radio"/>
81.	There is not much left in life for me.	<input type="radio"/>	<input type="radio"/>
82.	I feel indebted to people around me.	<input type="radio"/>	<input type="radio"/>
83.	I seldom have skin allergies.	<input type="radio"/>	<input type="radio"/>
84.	I strongly believe that life is cruel to me.	<input type="radio"/>	<input type="radio"/>
85.	Recently, I feel that I easily give up hope on everything.	<input type="radio"/>	<input type="radio"/>
86.	I consider myself to be an important person; activities without me are dull.	<input type="radio"/>	<input type="radio"/>
87.	Mental disorders are caused by malfunctions of the vital organs.	<input type="radio"/>	<input type="radio"/>
88.	Although I have a heavy workload, I can manage it well.	<input type="radio"/>	<input type="radio"/>
89.	I live a happy life.	<input type="radio"/>	<input type="radio"/>
90.	When I am at work, I always worry I will not be able to manage it.	<input type="radio"/>	<input type="radio"/>
91.	When I am nervous, I will have an upset stomach.	<input type="radio"/>	<input type="radio"/>
92.	After being criticized by others, I would hide myself from everyone for a while.	<input type="radio"/>	<input type="radio"/>
93.	I do not cry easily.	<input type="radio"/>	<input type="radio"/>
94.	I always feel weak and asthenic.	<input type="radio"/>	<input type="radio"/>
95.	There is not a single good person in this world.	<input type="radio"/>	<input type="radio"/>
96.	I often find living to be a difficult task.	<input type="radio"/>	<input type="radio"/>
97.	I make friends easily.	<input type="radio"/>	<input type="radio"/>
98.	I have ever had a panic attack, in which my whole body felt as if it was frozen.	<input type="radio"/>	<input type="radio"/>
99.	I seldom leave what I have started unfinished, and I will not give up even when I encounter obstacles.	<input type="radio"/>	<input type="radio"/>
100.	When I think I have an endless task, I am so nervous that I cannot breath.	<input type="radio"/>	<input type="radio"/>
101.	Sometimes I will cry for a while and laugh then for a while. I just cannot control myself.	<input type="radio"/>	<input type="radio"/>
102.	I enjoy brainteasers or games that require thinking.	<input type="radio"/>	<input type="radio"/>
103.	Some horrible images are constantly appearing in my mind, and I still cannot get rid of them.	<input type="radio"/>	<input type="radio"/>
104.	It does not matter to me if people like me or not.	<input type="radio"/>	<input type="radio"/>
105.	I feel I am really useless.	<input type="radio"/>	<input type="radio"/>

		T	F
106.	I get a headache every time I am annoyed.	<input type="radio"/>	<input type="radio"/>
107.	Due to my carelessness, I often cause damage that could have been avoided.	<input type="radio"/>	<input type="radio"/>
108.	Sometimes, I feel that I might as well get killed in an automobile accident.	<input type="radio"/>	<input type="radio"/>
109.	When I am not happy, I would not say so; I would only get a headache or feel tired.	<input type="radio"/>	<input type="radio"/>
110.	I feel anxious about something or someone almost all the time.	<input type="radio"/>	<input type="radio"/>
111.	I always feel discomfort all over body.	<input type="radio"/>	<input type="radio"/>
112.	When I meet strangers, I would be so nervous that I do not know what to say.	<input type="radio"/>	<input type="radio"/>
113.	I strongly believe that life is cruel to me.	<input type="radio"/>	<input type="radio"/>
114.	At social occasions I seldom take the initiative to introduce myself to strangers.	<input type="radio"/>	<input type="radio"/>
115.	Most of the time I feel I would be better off if I was dead.	<input type="radio"/>	<input type="radio"/>
116.	Sometimes I think I am possessed by a ghost.	<input type="radio"/>	<input type="radio"/>
117.	My everyday life is full of interesting things.	<input type="radio"/>	<input type="radio"/>
118.	I fear that I will lose my sanity.	<input type="radio"/>	<input type="radio"/>
119.	I easily cry non-stop.	<input type="radio"/>	<input type="radio"/>
120.	My family is only concerned about me when I get sick.	<input type="radio"/>	<input type="radio"/>
121.	Even if I feel extremely distressed, I will not seek professional help.	<input type="radio"/>	<input type="radio"/>
122.	I am very passive.	<input type="radio"/>	<input type="radio"/>
123.	People have told me that I sleep walk.	<input type="radio"/>	<input type="radio"/>
124.	It would be best if all laws were abolished.	<input type="radio"/>	<input type="radio"/>
125.	I am afraid of certain things or people for no reason, even though I know perfectly well that they cannot harm me.	<input type="radio"/>	<input type="radio"/>
126.	I am convinced that someone is following me.	<input type="radio"/>	<input type="radio"/>
127.	Every night before I go to sleep, I have to re-check the windows and doors four or five times or even more to make sure they are safely locked.	<input type="radio"/>	<input type="radio"/>
128.	I am usually calm.	<input type="radio"/>	<input type="radio"/>
129.	When I wake up in the morning, I usually feel clear headed.	<input type="radio"/>	<input type="radio"/>
130.	I find it difficult to concentrate my attention on one task.	<input type="radio"/>	<input type="radio"/>
131.	I often get red spots on my neck.	<input type="radio"/>	<input type="radio"/>
132.	My mind is still relatively quick.	<input type="radio"/>	<input type="radio"/>
133.	Someone is controlling my mind.	<input type="radio"/>	<input type="radio"/>
134.	I believe taking some tonics can really make my mind work better.	<input type="radio"/>	<input type="radio"/>
135.	Even if I have already made a choice, I would easily regret and reverse it.	<input type="radio"/>	<input type="radio"/>
136.	Even when I am with my family, I dare not talk about my thoughts and feelings.	<input type="radio"/>	<input type="radio"/>
137.	I am confident in my ability to accomplish something, even though I have not done it before.	<input type="radio"/>	<input type="radio"/>
138.	Whenever there is an exam coming up, I'll feel scared and panicky.	<input type="radio"/>	<input type="radio"/>
139.	I have no confidence in my future.	<input type="radio"/>	<input type="radio"/>
140.	I frequently get tired for a long period.	<input type="radio"/>	<input type="radio"/>
141.	I have been possessed by spirits.	<input type="radio"/>	<input type="radio"/>
142.	Almost every day, I worry that something horrible will happen to me.	<input type="radio"/>	<input type="radio"/>
143.	I get irritated if I do the same thing for a long time.	<input type="radio"/>	<input type="radio"/>
144.	Sometimes I find myself attracted to other people's possessions like shoes, gloves, etc.; although they are of no use to me, I cannot resist touching or sometimes even stealing them.	<input type="radio"/>	<input type="radio"/>

Appendix G2

情绪问题 (EP)

©2001 香港中文大学 及 中国科学院心理研究所: 张妙清、梁觉、宋维真、张建新编订 (版权所有,不得翻印)

	是	否
1. 我脑子里常常出现一些坏的、可怕的字眼,却又无法摆脱它们。	<input type="radio"/>	<input type="radio"/>
2. 我发现我很难把注意力集中到任何事情上。	<input type="radio"/>	<input type="radio"/>
3. 我常常无故地感到不知所措。	<input type="radio"/>	<input type="radio"/>
4. 我曾一连几个星期、甚至几个月什么也不想干,因为我总是提不起精神。	<input type="radio"/>	<input type="radio"/>
5. 遇到心理上的问题时,我会去看医生(中医或西医),吃些药,而不会去接受心理咨询或心理治疗。	<input type="radio"/>	<input type="radio"/>
6. 我做事经常犹疑不决,以致丧失机会,招来损失。	<input type="radio"/>	<input type="radio"/>
7. 我很容易受别人的影响而改变决定。	<input type="radio"/>	<input type="radio"/>
8. 我近来精神恍惚,坐立不安。	<input type="radio"/>	<input type="radio"/>
9. 我近来血气不足,所以精神恍惚不振。	<input type="radio"/>	<input type="radio"/>
10. 我觉得如果自己做错了事,就应该承认。	<input type="radio"/>	<input type="radio"/>
11. 我睡觉不安稳,容易被惊醒。	<input type="radio"/>	<input type="radio"/>
12. 我很少头痛。	<input type="radio"/>	<input type="radio"/>
13. 我很少有肌肉抽筋或颤抖的毛病。	<input type="radio"/>	<input type="radio"/>
14. 我经常担心我会伤害到自己或他人。	<input type="radio"/>	<input type="radio"/>
15. 我最近常想到自杀。	<input type="radio"/>	<input type="radio"/>
16. 当我要发言时,我的脑海便一片空白,什么也想不出来。	<input type="radio"/>	<input type="radio"/>
17. 我经常低着头,不敢正视别人。	<input type="radio"/>	<input type="radio"/>
18. 近几年来,我的身体比较健康,很少生病。	<input type="radio"/>	<input type="radio"/>
19. 我曾经透过电波去控制别人的思想或被别人控制。	<input type="radio"/>	<input type="radio"/>
20. 我觉得无法把握自己的未来。	<input type="radio"/>	<input type="radio"/>
21. 每种东西吃起来味道都是一样的。	<input type="radio"/>	<input type="radio"/>
22. 人家敬我一尺,我应敬人一丈。	<input type="radio"/>	<input type="radio"/>
23. 我经常放弃正在做的事,因为我觉得自己做不来。	<input type="radio"/>	<input type="radio"/>
24. 每次洗手我都要反复洗多次,否则会觉得不干净。	<input type="radio"/>	<input type="radio"/>
25. 好象没有人能理解我。	<input type="radio"/>	<input type="radio"/>
26. 我给我的家人造成太大的负担。	<input type="radio"/>	<input type="radio"/>
27. 在公众场合,我常故意地大声讲话来引人注意。	<input type="radio"/>	<input type="radio"/>
28. 我喜欢给朋友们讲笑话和故事。	<input type="radio"/>	<input type="radio"/>
29. 我对自己的能力有相当的信心。	<input type="radio"/>	<input type="radio"/>
30. 我在任何时候都能保持沉着、冷静。	<input type="radio"/>	<input type="radio"/>
31. 我做事很主动。	<input type="radio"/>	<input type="radio"/>
32. 曾经有人想对我下毒手或害死我。	<input type="radio"/>	<input type="radio"/>
33. 世界上没有人关心我。	<input type="radio"/>	<input type="radio"/>
34. 我原本想做的事,假如有人认为不值得做,我便会放弃。	<input type="radio"/>	<input type="radio"/>
35. 在群体中,我是一个善于出主意的人。	<input type="radio"/>	<input type="radio"/>
36. 我不喜欢玩智力游戏。	<input type="radio"/>	<input type="radio"/>
37. 当我准备做一件事的时候,我常发觉我的手在发抖。	<input type="radio"/>	<input type="radio"/>
38. 我经常胸痛或心痛,因此我感到很苦恼。	<input type="radio"/>	<input type="radio"/>
39. 我觉得如果自己做错了事,就应该承认。	<input type="radio"/>	<input type="radio"/>
40. 我的血压正常。	<input type="radio"/>	<input type="radio"/>
41. 有时一些无关紧要的念头缠着我,使我好多天都感到不安。	<input type="radio"/>	<input type="radio"/>
42. 至少有一次,我觉得我曾经被人用催眠术指使做了某些事。	<input type="radio"/>	<input type="radio"/>
43. 如果我的家人有神经衰弱,我会买些补品给他/她吃。	<input type="radio"/>	<input type="radio"/>
44. 我很容易哭。	<input type="radio"/>	<input type="radio"/>
45. 我大部分时间觉得浑身无力。	<input type="radio"/>	<input type="radio"/>

	是	否
46.	<input type="radio"/>	<input type="radio"/>
47.	<input type="radio"/>	<input type="radio"/>
48.	<input type="radio"/>	<input type="radio"/>
49.	<input type="radio"/>	<input type="radio"/>
50.	<input type="radio"/>	<input type="radio"/>
51.	<input type="radio"/>	<input type="radio"/>
52.	<input type="radio"/>	<input type="radio"/>
53.	<input type="radio"/>	<input type="radio"/>
54.	<input type="radio"/>	<input type="radio"/>
55.	<input type="radio"/>	<input type="radio"/>
56.	<input type="radio"/>	<input type="radio"/>
57.	<input type="radio"/>	<input type="radio"/>
58.	<input type="radio"/>	<input type="radio"/>
59.	<input type="radio"/>	<input type="radio"/>
60.	<input type="radio"/>	<input type="radio"/>
61.	<input type="radio"/>	<input type="radio"/>
62.	<input type="radio"/>	<input type="radio"/>
63.	<input type="radio"/>	<input type="radio"/>
64.	<input type="radio"/>	<input type="radio"/>
65.	<input type="radio"/>	<input type="radio"/>
66.	<input type="radio"/>	<input type="radio"/>
67.	<input type="radio"/>	<input type="radio"/>
68.	<input type="radio"/>	<input type="radio"/>
69.	<input type="radio"/>	<input type="radio"/>
70.	<input type="radio"/>	<input type="radio"/>
71.	<input type="radio"/>	<input type="radio"/>
72.	<input type="radio"/>	<input type="radio"/>
73.	<input type="radio"/>	<input type="radio"/>
74.	<input type="radio"/>	<input type="radio"/>
75.	<input type="radio"/>	<input type="radio"/>
76.	<input type="radio"/>	<input type="radio"/>
77.	<input type="radio"/>	<input type="radio"/>
78.	<input type="radio"/>	<input type="radio"/>
79.	<input type="radio"/>	<input type="radio"/>
80.	<input type="radio"/>	<input type="radio"/>
81.	<input type="radio"/>	<input type="radio"/>
82.	<input type="radio"/>	<input type="radio"/>
83.	<input type="radio"/>	<input type="radio"/>
84.	<input type="radio"/>	<input type="radio"/>
85.	<input type="radio"/>	<input type="radio"/>
86.	<input type="radio"/>	<input type="radio"/>
87.	<input type="radio"/>	<input type="radio"/>
88.	<input type="radio"/>	<input type="radio"/>
89.	<input type="radio"/>	<input type="radio"/>
90.	<input type="radio"/>	<input type="radio"/>
91.	<input type="radio"/>	<input type="radio"/>
92.	<input type="radio"/>	<input type="radio"/>
93.	<input type="radio"/>	<input type="radio"/>
94.	<input type="radio"/>	<input type="radio"/>
95.	<input type="radio"/>	<input type="radio"/>
96.	<input type="radio"/>	<input type="radio"/>

		是	否
97.	我很容易结交朋友。	<input type="radio"/>	<input type="radio"/>
98.	我曾经突然惊慌失措，连整个身体都好像僵直了。	<input type="radio"/>	<input type="radio"/>
99.	我做事很少半途而废，即使遇到困难也不会放弃。	<input type="radio"/>	<input type="radio"/>
100.	一想到工作像永远做不完似的，我就会紧张得透不过气来。	<input type="radio"/>	<input type="radio"/>
101.	有时我会哭一阵笑一阵，自己也不能控制。	<input type="radio"/>	<input type="radio"/>
102.	我喜欢玩智力游戏。	<input type="radio"/>	<input type="radio"/>
103.	有些可怕的景象不断地出现在我脑海中，始终无法摆脱。	<input type="radio"/>	<input type="radio"/>
104.	我不在乎别人是否喜欢我。	<input type="radio"/>	<input type="radio"/>
105.	我觉得自己真是毫无用处。	<input type="radio"/>	<input type="radio"/>
106.	心情烦躁的时候，我就头痛。	<input type="radio"/>	<input type="radio"/>
107.	因为疏忽，我常常造成一些本来可以避免的损失。	<input type="radio"/>	<input type="radio"/>
108.	有时我觉得不如让汽车撞死。	<input type="radio"/>	<input type="radio"/>
109.	我不高兴时，不会直接说出来，只会感到头痛或者疲倦。	<input type="radio"/>	<input type="radio"/>
110.	我几乎整天都在为某件事或某个人而焦虑。	<input type="radio"/>	<input type="radio"/>
111.	我总觉得浑身上下都不舒服。	<input type="radio"/>	<input type="radio"/>
112.	每当遇到陌生人，我就紧张得不知道说什么好。	<input type="radio"/>	<input type="radio"/>
113.	我深信生活对我是残酷的。	<input type="radio"/>	<input type="radio"/>
114.	在社交活动中，我很少主动向陌生人自我介绍。	<input type="radio"/>	<input type="radio"/>
115.	很多时候，我觉得我不如死了的好。	<input type="radio"/>	<input type="radio"/>
116.	有时我觉得有鬼附在我身上。	<input type="radio"/>	<input type="radio"/>
117.	日常生活中充满了使我感兴趣的事物。	<input type="radio"/>	<input type="radio"/>
118.	我怕自己会发疯。	<input type="radio"/>	<input type="radio"/>
119.	我容易哭个不停。	<input type="radio"/>	<input type="radio"/>
120.	我只有在病倒时才会得到家人的关心。	<input type="radio"/>	<input type="radio"/>
121.	即使我内心极度困扰，我也不会向专家求助。	<input type="radio"/>	<input type="radio"/>
122.	我做事很被动。	<input type="radio"/>	<input type="radio"/>
123.	听人说，我在梦中会起床行走。	<input type="radio"/>	<input type="radio"/>
124.	最好是把所有法律全部废除。	<input type="radio"/>	<input type="radio"/>
125.	我会无故的害怕一些东西或人，虽然我明知他们不会伤害我。	<input type="radio"/>	<input type="radio"/>
126.	我相信有人跟踪我。	<input type="radio"/>	<input type="radio"/>
127.	每晚睡觉前，我都要重复检查门窗四、五次以上，确保它们是安全锁好。	<input type="radio"/>	<input type="radio"/>
128.	我通常心平气和。	<input type="radio"/>	<input type="radio"/>
129.	我早上起来的时候，多半觉得头脑清醒。	<input type="radio"/>	<input type="radio"/>
130.	我很难把注意力集中到一件工作上。	<input type="radio"/>	<input type="radio"/>
131.	我脖子上常起红斑点。	<input type="radio"/>	<input type="radio"/>
132.	我的脑筋还算比较灵活。	<input type="radio"/>	<input type="radio"/>
133.	有人控制着我的思想。	<input type="radio"/>	<input type="radio"/>
134.	我相信吃点补药，可使自己的头脑灵活一些。	<input type="radio"/>	<input type="radio"/>
135.	在作出某种选择后，我总是很容易反悔。	<input type="radio"/>	<input type="radio"/>
136.	即使面对家人，我也不敢说出心事。	<input type="radio"/>	<input type="radio"/>
137.	即使我从未做过某件事，我也有信心可以做得很好。	<input type="radio"/>	<input type="radio"/>
138.	每次面临考验时，我就害怕得心慌胆战，阵脚大乱。	<input type="radio"/>	<input type="radio"/>
139.	我对将来感到没有信心。	<input type="radio"/>	<input type="radio"/>
140.	我经常感到长时间的疲倦。	<input type="radio"/>	<input type="radio"/>
141.	我曾经被鬼魂附身。	<input type="radio"/>	<input type="radio"/>
142.	我几乎每天都担心会发生可怕的事情。	<input type="radio"/>	<input type="radio"/>
143.	长时间地做同一件事情会令我烦躁。	<input type="radio"/>	<input type="radio"/>
144.	有时我会被别人的东西，如鞋、手套等强烈吸引，虽然它们对我毫无用处，但我还是想摸一摸或是把它们偷来。	<input type="radio"/>	<input type="radio"/>

Appendix H1

Extended Satisfaction with Life Scale (E-SWLS)

Direction: Read each statement and indicate the extent to which you agree or disagree with that statement, using the scale provided. Mark your responses by circling the number to the right of each statement.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
----- ----- ----- ----- ----- -----						
1	2	3	4	5	6	7

1. So far I believe my family members have gotten the important things they want in life.
2. In most ways my family members' lives are close to my ideal.
3. The conditions of my family members' lives are excellent.
4. The conditions of my life are excellent.
5. I am satisfied with life.
6. So far I have gotten the important things I want in life.

Appendix H2

生活满意度量表 (E-SWLS)

作答说明： 请阅读下列 每个陈述，用以下 的量尺表达你对每个陈述的同意程度。请不要在量表上做标记，而是在计算机答题纸上回答。请注意计算机答题纸上印有从 1 到 7 的七个答案。

非常不同意	不同意	稍微不同意	没有意见	稍微同意	同意	非常同意
----- ----- ----- ----- ----- -----						
1	2	3	4	5	6	7

1. 迄今为止，我相信我的家人已经得到了他们想要从生命中获得的重要的东西.
2. 在大部分情况下，我家人的生活接近我的理想.
3. 我家人的生活状况很好.
4. 我的生活状况很好.
5. 我对我的生活感到满意.
6. 迄今为止，我已经得到我想从生命中获得的重要的东西.

Appendix II

Oral Consent Script

Dear students:

I am a graduate student who is studying at the University of Missouri in the U.S. I am very grateful for an opportunity to be here to invite you to participate in my dissertation on Chinese college seniors' coping. To ensure that you understand the rights as a research participant, though this may sound a bit strange, I want to say a few things about what you could expect in participating in my study. If you have any questions, please do not hesitate to raise your hand and let me know.

The study does not involve in any risks greater than those associated with normal living. The benefit of the study is that you may become more aware of your ways of coping and how they help or do not help you deal with stressful events. The questionnaires take approximately 40 minutes to complete. If you are interested in helping me with my study, you will gain a folder as a token of appreciation after you complete the questionnaires.

Please understand that your participation in this study is completely voluntary. If you decide to participate in the study, you will be free to leave any items blank or to stop completing the questionnaires at any time. By filling out the questionnaires, you will consent to participate in the study. I will be available to answer any questions you may have when you are completing the questionnaires. Please feel free to raise your hand and let me know.

Your responses will be confidential. You do not need to provide your name or any other identifying information. I may be publishing this data or presenting it at professional conferences, but only group data will be reported. Thus, you will not be identified personally in any way.

The questionnaires will only be accessible by me and my dissertation supervisor. They will be kept in a locked cabinet and no one else will have access to this information.

I will extremely appreciate your participation in my dissertation study and your contribution in helping me understand Chinese college students' coping. Should you have any questions or concerns regarding this study later, you can contact me, Yuhong He at yuhong1221@yahoo.com or my dissertation supervisor Dr. Puncy Heppner at Heppnerp@missouri.edu, 16 Hill Hall, Department of Educational, School, and Counseling Psychology, University of Missouri, Columbia, MO 65211. If you have questions regarding your rights as a research participant, you can contact the Institutional Review Board at the University of Missouri at umcresearchcirb@missouri.edu, 573-882-9585, 483 McReynolds Hall, Columbia, MO 65211.

Appendix I2a

口头同意书

尊敬的老师和同学们：

我是美国密苏里大学的一名研究生。我非常感激能有机会来到你们教室里邀请你们参加我的论文研究。我研究的题目是中国大四学生的应对方式。接下来可能听起来有点奇怪，不过为了确保你们明白被试者的权力，我会简单讲讲参加我的研究可以预期到的一些事项。在这个过程中，如果你有任何问题，请随时举手发问。

参加我的论文研究并不会有任何的危险性。这项研究的好处是通过填写量表，你可以对自己的应对方式，和在处理压力事件时哪些方式对你更有帮助，会有更多的了解。完成整个问卷大概需要 40 分钟。如果你有兴趣参与我的研究，在你填完量表后，你可以获得一个文件夹以示我们对你的感谢。

你参加该项研究必须是完全出于自愿。你可以随时退出该项研究或者拒绝回答问卷中的任何问题。填写问卷意味着你同意参与我的研究。在你们填写问卷的过程中，如果有问题，可以随时向我提问。

你的回答是完全保密的。我们并不需要你提供你的名字或者其它个人信息。我们也许会发表数据分析结果在一些期刊上，或者用在大会报告上。但不管怎样，都只会用整体性数据，不会透露你的个人信息。

只有我和我的论文指导老师才有可能看到你填写的调查问卷。我会把问卷锁起来，而且别人没有办法接触到。

如果你愿意参与我的研究并帮助我对中国大四学生的应对有更多的了解，我会非常地感激。如果你对这项研究有任何的问题或者顾虑，你可以通过电子邮件来联系我(yuhong1221@yahoo.com)，或者通过电子邮件联系我的论文指导老师-美国密苏里大学咨询心理学专业的 Puncy Heppner 教授(heppnerp@missouri.edu)。如果你对作为被试的权利有任何的疑问，你可以通过 umcresearchcirb@missouri.edu, 573-882-9585 联系美国密苏里大学的校方评审委员会(Institutional Review Board)。

Appendix I2b

中国大学生的求职历程

同学，您好！

感谢您愿意参与到这一项关于中国大四学生的研究。此项研究的目的是了解个人（如应对）和环境因素（如生涯阻碍）对有和没有求职经历的中国大四学生的影响。

众所周知，今年七月，全国有610万大学生从各个高校毕业。在这个重要的人生转折点，部分同学选择继续留校深造，而绝大部分走向竞争剧烈的就业市场。在这样一个充满压力的大四学年，您是否思考过您应对压力的方式？对国内目前的就业现状，您是否对环境中的阻碍有过感慨？

我们深觉这是一个重要的研究课题。我们期望研究的结果能够帮助中国大学生对大四期间对身心健康有重要影响的个人和外在两重因素有更好的了解，对中国高校的就业指导中心和心理咨询中心有所启示，能够更好地帮助大学生发展有效应对压力和外在阻碍的方式。因此我们诚挚地邀请您参与我们的研究。

通过填写此份问卷，您会有机会对自己应对压力的方式有更全面的思考。我们的研究和实践经验告诉我们，您对自己的应对方式有越多的了解，您就更有可能从容和有效的面对将来可能碰到的各种压力状况。参与这项研究的另一个好处是，您可以在第一时间内获得我们的研究结果报告。报告的结果可以帮助您更好地了解有哪些有效的应对方式是您所具有或没有的。

填写此份问卷大约需要30—50分钟。您诚实的作答和回答完成整份问卷对我们的研究结果极端的重要。我们也希望得出来的研究结果能够真实的反应了包括您在内的大四学生的状况。

请务必回答每一个问题。漏答1题以上会视为废卷，您的时间和劳动也会因此浪费。请您填完问卷时再检查一遍。

在您作答问卷期间，请您不要和同学商量或讨论，以避免造成研究结果的误差。我们建议您能一次性的完成问卷。但是假如您需要中途休息，请您不要和同学交换意见，以免影响您后来的作答。

您的回答是完全保密的。我们并不需要您提供您的名字或者其他个人信息。我们也许会发表数据分析结果在一些期刊上，或者用在大会报告上。但不管怎样，都只会用整体性数据，不会透露您的个人信息。如果您对研究结果有兴趣，您可以把您的个人电子邮件地址发到yuhong1221@yahoo.com。请在标题上注明“索取大学生求职历程研究结果”。

再次感谢您参与这项重要的研究！我们祝您顺利毕业，无论工作还是读研，都前程似锦！

Appendix J Deleted Data Description

Complete Raw Data

Total N = 935; CCNU=255(27.3%), HUST=199(21.3%), NU=219(23.4%), SU=262(28%)

Deleted Data

Criteria: missing or out-of-range responses or patterned responses \geq 10%

1. PF-SOC: 18 items (missing no more than 1 item)
2. PSI: 35 items (missing no more than 3 items)
3. CCS: 30 items (missing no more than 3 items)
4. CIC: 35 items (missing no more than 3 items)
5. ECBI: 32 items (missing no more than 3 items)
6. ESWLS: 6 items (missing 0 item)
7. CPAI-2: 20 items for each subscale (missing no more than 2 items individually and 10 items in total)

School 1: CCNU

CCNU29: missing 1-page response on CPAI-2

CCNU39: 2 out of range responses and 1 missing on PF-SOC

CCNU76: missing 1-page response on CPAI-2

CCNU100: missing demographic and PF-SOC pages

CCNU101: missing PF-SOC page

CCNU108: missing 1-page responses on PSI

CCNU135: missing 1 response on ESWLS and 2 responses on ECBI

CCNU142: patterned response (123456) on ESWLS and 10 repeated responses (1) on PSI

CCNU147: missing all responses on ESWLS

CCNU187: 4 out of range responses on CCS

CCNU192: missing all responses on CCS, CIC, ECBI, CPAI-2, and ESWLS

CCNU193: missing all responses on PF-SOC and 3 responses on ECBI

CCNU194: 9 out of range responses on CCS

CCNU195: 9 out of range responses on CCS, 3 out of range, 1 missing, and repeated pattern responses on ECBI-R

CCNU204: repeated responses (1) on ECBI-R, CIC, CCS

CCNU212: missing 7 responses on PSI, missing 1-page responses on CPAI-2

CCNU215: missing 10 responses on ECBI

CCNU252: missing 1 response on ESWLS

School 2: HUST

HUST3: 10 out of range responses on PSI

HUST5: missing 2 responses on PF-SOC

HUST28: 4 out of range responses on CCS

HUST38: 10 out of range and 1 missing responses on PF-SOC

HUST40: 2 out of range responses on PF-SOC

HUST48: repeated responses (0) on CCS, and on ECBI-R

HUST49: out of range responses 6 on CCS, 5 on PF-SOC, 5 on PSI

HUST51: missing 16 responses on CPAI-2

HUST53: out of range responses 2 on CCS, 4 on PF-SOC

HUST57: missing 6 responses on ECBI

HUST59: 3 out of range responses on ECBI

HUST70: missing all responses on ESWLS

HUST75: 5 out of range responses on PSI

HUST80: missing all responses on ESWLS

HUST90: 3 out of range responses on CCS

HUST97: missing all responses on ESWLS, out of range responses 1 on PF-SOC, 4 on CCS

HUST112: out of range responses 8 on CCS, 4 on PF-SOC, 3 on PSI

HUST114: 4 out of range responses on PF-SOC

HUST128: out of range responses 2 on CCS, 2 on PF-SOC

HUST129: 4 out of range responses on CCS

HUST137: 14 out of range responses on CCS

HUST138: 5 missing responses on ECBI

HUST142: missing 1-page responses on ECBI and CPAI-2

HUST148: 3 out of range responses on CCS

HUST150: 1 missing response on ESWLS and 3 out of range responses on CCS

HUST151: missing all responses on CIC, CCS, PF-SOC, PSI

HUST154: 1 missing response on ESWLS, 1 out of range response on PSI

HUST155: 4 out of range responses on CCS, 1 out of range on PF-SOC

HUST159: 3 missing and 1 out of range responses on ECBI, 3 out of range responses on CCS, 2 out of range responses on PSI

HUST161: repeated responses on CIC

HUST196: 4 out of range responses on CCS

School 3: NU

NU_C_7: repeated responses on CIC, CCS
NU_C_10: repeated response on ECBI, PF-SOC, 2 missing responses on PSI
NU_C_37: repeated responses on CCS, PF-SOC, PSI, ECBI, CIC
NU_C_64: 4 out of range responses on CCS
NU_C_66: missing 1-page responses on CIC, CCS, PSI, ECBI, CPAI-2, ESWLS, demographic form
NU_C_67: 5 out of range responses on CCS, patterned responses on CIC, CCS, PF-SOC, PSI, ECBI, and ESWLS
NU_C_69: repeated and patterned responses on CIC, CCS, PF-SOC, PSI, ECBI
NU_C_70: repeated responses on PF-SOC and PSI
NU_C_74: repeated responses on CIC and ECBI
NU_C_99: 2 out of range responses on PF-SOC
NU_C_118: missing all responses on ESWLS
NU_C_125: 6 out of range responses on PF-SOC
NU_C_142: missing 2-page responses on CPAI-2
NU_C_150: repeated responses on ECBI, CPAI, CIC, CCS, PF-SOC, PSI
NU168: missing all responses
NU174: 2 missing responses on PF-SOC
NU206: 5 missing responses on CCS
NU208: missing all responses on ESWLS
NU215: missing all responses on CIC, CCS, PF-SOC, PSI

School 4: SU

SU4: repeated responses on ESWLS, PF-SOC, PSI, CIC, CCS
SU10: repeated responses on CIC, CCS, ECBI, CPAI-2, and ESWLS
SU16: 3 out of range responses on CCS
SU24: missing 1 response on ESWLS
SU28: missing 12 responses on CCS
SU29: missing 4 items on CIC
SU31: repeated responses on PF-SOC, PSI, CIC, CCS
SU41: missing all responses
SU54: repeated responses on CB, PF-SOC, PSI, CIC, CCS
SU56: 8 out of range responses on CCS
SU58: missing all responses

SU59: missing all responses
SU74: missing all responses
SU75: missing all responses
SU77: repeated responses on PF-SOC, PSI, CIC, CCS
SU86: 11 out of range responses on ECBI
SU89: 4 out of range responses on ECBI
SU92: 28 out of range responses on ECBI
SU98: missing 1-page responses on CPAI-2
SU112: 4 out of range responses and 1 missing on ECBI
SU135: missing all responses on ESWLS
SU164: missing 4 responses on ECBI, repeated responses on CCS
SU171: repeated responses on PF-SOC, PSI, CIC, CCS, ECBI
SU184: 5 out of range responses on ECBI
SU189: 4 missing responses on ECBI
SU195: missing more than 10 items on CIC
SU252: missing 1-page responses on CPAI-2
SU205: missing responses on CIC, CCS, ECBI, CPAI-2, and ESWLS
SU208: repeated responses on CIC
SU236: repeated responses on ESWLS, PF-SOC, PSI, CCS
SU244: repeated responses on PF-SOC, PSI, CIC, CCS, ECBI

Summary:

Deleted 18 CCNU cases (CCNU29, CCNU39, CCNU76, CCNU100, CCNU101, CCNU108, CCNU135, CCNU142, CCNU147, CCNU187, CCNU192, CCNU193, CCNU194, CCNU195, CCNU204, CCNU212, CCNU215, CCNU252)

Deleted 31 HUST cases (HUST3, HUST5, HUST28, HUST38, HUST40, HUST48, HUST49, HUST51, HUST53, HUST57, HUST59, HUST70, HUST75, HUST80, HUST90, HUST97, HUST112, HUST114, HUST128, HUST129, HUST137, HUST138, HUST142, HUST148, HUST150, HUST151, HUST154, HUST155, HUST159, HUST161, HUST196)

Deleted 21 NU cases (NU_C_7, NU_C_10, NU_C_37, NU_C_64, NU_C_66, NU_C_67, NU_C_69, NU_C_70, NU_C_74, NU_C_99, NU_C_118, NU_C_125, NU_C_142, NU_C_150, NU_C_168, NU_C_174, NU_C_181, NU_C_185, NU_C_206, NU_C_208, NU_C_215)

*Don't have raw questionnaire NU181, NU185

Deleted 31 SU cases (SU4, SU10, SU16, SU24, SU28, SU29, SU31, SU41, SU54, SU56, SU58, SU59, SU74, SU75, SU77, SU86, SU89, SU92, SU98, SU112, SU135, SU164, SU171, SU184, SU189, SU 195, SU205, SU208, SU236, SU244, SU252)

Deleted total 101 cases

Remaining: 834 (935-101)

After performed CPAI screening syntax, it was recommended that **21** items to be deleted. They are CCNU121(115), CCNU211(196), HUST9(244), HUST26(261), HUST107(328), HUST109(330), HUST133(350), HUST139(354), HUST158(367), HUST173(380), HUST176(383), HUST178(385), HUST183(390), NU_C_31(434), NU_C_32(435), SU48(644), SU88(676), SU90(677), SU133(717), SU139(722), SU166(748)

Summary:

Deleted total 21 cases: CCNU 2 items, HUST 11 items, NU 2 items, SU 6 items.

Remaining: 813 (834-21)

Vita

Yuhong He was born in Hainan, China on December 21st, 1979. She spent the first 22 years in China before coming to the United States. Yuhong graduated from Henan University of Science and Technology in 2002 with a Bachelor's degree in English. She earned her Master of Education in College Counseling from the University of Delaware in 2005. She is currently a doctoral candidate in the Counseling Psychology program at the University of Missouri.