# Coping Among Older Chinese Immigrants as Measured by Chinese and English Versions of the Revised Jalowiec Coping Scale

by

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# Chapter I

## Introduction

Caring holistically for a person under stress is a major focus of nursing. Stress, as defined by Lazarus (1966), is the cognitive perception of loss or harm, threat, and/or challenge. The threat of stress can be dealt with via cognitive and behavioral responses which are known as parts of the coping process. (Lazarus, 1966, 1984). Therefore, the understanding of coping is central to the development of theories that guide nursing practice as well as crucial to the definition of nursing strategies to facilitate client's management of stress (Panzarine, 1985; Scott, Oberst, & Dropkin, 1980; Wegmann, 1988).

Older adults are especially vulnerable to loss, a significant stressor. As Billing (1987) suggested, older adults are at high risk for physical diseases or disabilities, such as chronic illness, and they are also at risk for emotional responses to these physical problems. In addition, older adults experience the loss of family members and friends through death. Older adults have to adjust themselves to changes in life style, such as after retirement, and concomitant changes in social-economic status. These multiple losses and changes associated with aging may tax their ability to cope. Because older adults often have less available physical resources, and less socio-economic resources, and usually have less information resources, their vulnerability to stress may be increased (Billing, 1987; Miller & Oertel, 1983).

Older adults who have migrated to a new country and culture are even more vulnerable to stress. Besides the losses and changes described above, they face a totally different environment from their native environment. Differences include disparate diet, change of social network, financial resources, language, culture, and society. These multiple changes contribute to the stress they experience, which in turn may affect their nervous and endocrine systems as well as their adaptation in the new country (Hull, 1979).

According to the 1980 census, the Chinese are the largest group of Asian-Americans in this country, yet little is known about the coping strategies of Chinese elderly people. Hence, this research study examined coping behaviors of a sample of Chinese older adults who had immigrated to the United States. A Chinese version of the revised Jalowiec coping scale (1987) was developed and its reliability and validity with this group were determined.

Because nursing is concerned about health needs of persons in different environmental and cultural situations, this study adds to the knowledge base for practice by increasing our understanding of coping as a cross-cultural phenomenon. More specifically, a coping profile of a sample of older Chinese immigrants is one result of this study. In addition, if the Chinese version of the Jalowiec coping scale demonstrates adequate reliability and validity, it could be a useful instrument for measuring coping of Chinese speaking clients in North American. Moreover, if the Chinese version is adequate for the Chinese population in North America, the tool

can be tested for use in Taiwan, Republic of China, the investigator's country of origin.

## Review of the Literature

### Overview of Stress and Coping theory

#### Nursing

In the early stage of nursing theory development, coping was a vague concept. Roy (1976) developed the first grand nursing theory incorporating a framework of stress and adaptation. Although she included "coping mechanisms" or "coping styles" in her model, she did not clearly differentiate the concept of coping from the concept of adaptation. Roy described stress as resulting from the interaction between a person and his/her environment.

Gossen and Bush (1979) contributed to our understanding of how persons respond to stress through their development of a feedback model of stress and adaptation. They also emphasized an interaction process, termed complementarity, which was conceptualized as a continuous process between humans and their environment. Yet, coping itself was neglected in their model.

Scott, Oberst, and Dropkin (1980) developed a stress and coping model for research purposes. They suggested three dependent variables related to coping: the emotional response, the endocrine profile (physical response), and the behavioral response. These responses resulted in a state of adaptation. In this model, coping was divided into four modes: information seeking, direct action, inhibition of action, and intrapsychic.

They emphasized the adaptive outcome of coping instead of coping itself. Although this model included coping specifically, it did not differentiate between emotional regulation and cognitive problem solving.

Panzarine (1985) based her model on the coping theory of Lazarus and his colleagues (1978, 1980). She defined coping as a phenomenon affected by personal characteristics, environmental resources, and differences in stressor characteristics. She also suggested that specific cognitive and behavioral coping strategies should be further explored through nursing research. In reviewing nursing research on coping, she noted that studies ranged from simple descriptions of the phenomenon to profiles of coping strategies in different kinds of situations, for example adolescent parents and patients in the emergency room.

Psychology and other fields

Perhaps more than any discipline, psychology has contributed to our understanding of coping and its relation to stress. In Lazarus and his colleagues' framework (1966, 1978, 1984), coping includes both cognitive and behavioral responses intended to reduce stress. Stress results from a transaction between a person and his/her situation, that is, stress is the individual's cognitive perception of loss or harm, threat, and/or challenge inherent in a situational event.

In contrast to Lazarus et. al., Pearlin and Schooler (1978) described three dimensions of coping. These three dimensions are social resources, psychological resources, and specific coping responses. Social resources are the interpersonal networks available for a person to develop his/her

coping repertories. Psychological resources describe how one's self-esteem, self-denigration, and mastery influence the development of coping responses. Coping responses are the specific behaviors, cognitions, and perceptions one engages in to manage stressful situations.

Although Cohen (1979) did not elaborate on coping per se, he suggested that the nature of the stressor influenced the coping strategies one used. Cohen categorized four types of stressors based on duration. They are: (1) acute and time limited; (2) chronic, intermittent stressors; (3) chronic stress condition; and (4) stress event sequences. For an older person, the death of a significant other could serve as a typical example of an acute type stressor. Arthritis may be considered an example of a chronic, intermittent stressor. A physical disability is an example of the chronic stress condition. Finally, the process of aging may be considered a stress event sequence if one experiences aging as a painful and powerless process.

## Coping Among Older Adults

Coping strategies used by older adults vary according to the type of stress they experience. For example, the loss of a spouse is potentially a significant stressful event for an elderly person. In this section, nursing and psychology studies of coping among older persons experiencing different situational stressors are explained.

### Coping with loss of a spouse

In general, studies have found that elderly widows/widowers have more stress than young widows/widowers because in addition to the loss of

their spouse, they have a combination of other losses with which to cope, such as role changes, and the death of other friends and family. Therefore, the bereaved elderly are at a high risk for negative adaptational outcomes such as poor self-care, suicide, depression, and sickness (Ben-Sira, 1983). For example, Thompson and his colleagues (1984) conducted a study to explore the self-perception of physical health in elderly widows/widowers. They found that widows/widowers had poorer health ratings in general, more recently developed or worsened illness, and greater use of medication.

Gass (1987 a & b) used the Appraisal of Bereavement (Gass, 1987), Ways of Coping Checklist (Folkman & Lazarus, 1980), & Sickness Impact Profile (Glison et al, 1978) scales with 100 older catholic widows (Mean (M) = 71.3) to determine their coping strategies. The study found that helpful coping strategies with this group included: religion and prayers (89%), keeping busy (79%), review of the death (64%), forgetting (23%), talking with the deceased spouse (17%), participation in social groups (10%), learning new skills (percentage not noted), sensing the spouse's presence (percentage not noted), and recalling happy memories (percentage not noted). The percentages indicated the percent of persons in the sample who used this strategy as coping methods. In contrast, less helpful coping strategies used were: bargaining or compromising (22%), using fantasy (20%), blaming self (17%), getting mad at people (16%), taking medications (antidepressant, tranquilizer, & sedatives) or alcohol (16%), avoiding (12%), sleeping more (11%), and making promises to oneself (10%). The results suggested that widows who were in better health used

fewer coping techniques than widows with more health dysfunction. Moreover, widows who scored high on psychological well-being used more helpful coping strategies than widows who scored lower on psychological well-being. The more the widow used wishful thinking, mixed, self-blame, and overall emotional-focus coping styles, the higher the psychosocial and physical dysfunction. Gass (1987 a & b) concluded that coping is a shifting process and that one's coping strategies can not be simply categorized as helpful or less helpful. For example, she noted that denial may be helpful in the early bereavement stage but less helpful if one keeps using denial as a coping strategy. Other studies support her findings (Clark, Siviski, & Weiner, 1986; Dimond, 1981; Johnson, Lund, & Dimond, 1986; Moss & Moss, 1984-5).

Herth (1990) conducted a study to investigate the experience of elderly widows/widowers. A stratified random sample of 75 older persons whose spouses died in different settings (25 in hospitals, 25 in skilled nursing homes, and 25 in hospices) were selected. Sixty-two percent were women and 72% of the sample were Caucasian. Herth used three instruments to explore the relationship between hope (Herth Hope Scale, Herth, 1985) and grief (Grief Resolution Index, Remondet & Hansson, 1987), and coping styles (revised Jalowiec Coping Scale, Jalowiec, 1987). The Jalowiec Coping Scale examines eight different types of coping styles. These are confrontive, evasive, optimistic, fatalistic, emotive, palliative, supportant, and self-reliant. Generally, this study found a positive relationship between level of grief resolution and level of hope. A positive

relationship was also found between level of grief resolution and confrontive, optimistic, palliative, supportant, and self-reliant coping styles. In contrast, a significant negative relationship was found between the level of grief resolution, the level of hope, and the use of coping styles such as evasive, fatalistic, and emotive coping styles. Because the subjects in this study were primarily Caucasian and middle class, Herth iterated the need to replicate the study with various cultural subpopulations and with different socioeconomic groups.

Coping with physical illness

King, Figge, and Harman (1986) studied coping among elderly persons who had physical health problems. Thirty-eight elderly persons who had been hospitalized and required home care were selected, although five were eliminated from the study because three died and two went to nursing homes. About 70% of the sample were women; the ethnic group was not indicated. Coping was measured by a "Life Satisfaction Scale". Higher levels of coping were equated with greater life satisfaction. A significant relationship between the level of coping and perceived level of health was reported. Also, a significant relationship between the level of coping and self-certainty (i.e. predictively) was found. The investigators concluded that coping may be a predictor for assessing elderly persons' levels of perceived health and their perception of the certainty of events.

Manfredi and Pickett (1987) also explored coping strategies utilized by elderly persons and their perceived stressful situations. Fifty-one senior-citizen, 60 years of age or older, were selected as a convenience sample;

82.4% were women. The investigators asked the subjects to describe a stressful event they experienced. Next, they were asked to answer the Ways of Coping Checklist (Folkman & Lazarus, 1985) to explore coping strategies they utilized to deal with the stressful event. Two major kinds of stressful events experienced by elderly persons were found: loss (physical health, significant relationship, and economic resources) and conflict (intrapersonal and interpersonal power and control struggles). Forty percent of the subjects reported loss of their own physical health and 33.3% reported illness of their significant others as their major stressful event. No significant differences were found in emotion-regulation and problem-solving coping strategies reported in this group. One limitation was that this study did not explore the effectiveness of different coping strategies for managing the major kind of stressful events.

Felton and his colleagues (Felton, Revenson, & Hinrichsen, 1984) studied 170 adults to explain the individual differences in psychological adjustment to chronic illness. Sixty-seven men and 103 women who had chronic illness (hypertension, diabetes mellitus, rheumatoid arthritis, and systemic blood cancers) were studied. The mean age for the sample was 61 years old. Medical diagnosis was considered the dependent variable. Coping was measured by a modified coping scale (from Folkman and Lazarus' "Ways of Coping Scales" 1980, and Pearlin & Schooler's framework 1978). Factors affecting coping were measured by a Cognitive Restructuring Scale, an Emotional Expression Scale, a Wish-Fulfilling Fantasy Scale, a Self-Blame Scale, an Information Seeking Scale, and a

Threat Minimization Scale. Psychological adjustment was measured by an Acceptance of Illness Scale (modified from Linkowski's Sickness Impact Scale, 1971), and the Self-Esteem Scale (Rosenberg, 1965). At the end of the study, a Positive and Negative Affect subscale (from Bradburn's Affect Balance scale, 1969) was used to measure positive and negative affective components of well-being. Positive affect was found to be related to cognitive restructuring and information seeking. In contrast, negative affect was related to emotional expression, wish-fulfilling fantasy, and self-blame. The authors concluded that emotion-based coping such as wish-fulfilling fantasy, emotional expression, and self-blame related to poor adjustment, that is, loss of self-esteem, non acceptance of illness, and sad or depressed feelings. However, cognitive strategies such as information seeking were related to positive adjustment.

Coping and depression

Foster and Gallagher (1986) did a study to compare coping strategies used by depressed and non-depressed older adults. Thirty-two non-depressed elders (the mean age was 73.2) from senior centers and 32 older adults with diagnosed depression (the mean age was 71.9) from outpatient clinics were studied. The instruments used included the Beck Depression Inventory (Beck, et al, 1961) and a Life-Events Scale from the Health and Daily-Living Questionnaire (HDLQ, Moos, et al., 1983). Results suggested the depressed sample used significantly higher numbers of emotional discharge (i.e., disengagement) coping strategies than the non-depressed sample. Both depressed and non-depressed samples used the coping

strategies of logical analysis, information seeking, problem solving, and/or affective regulation equally often. However, the depressed group indicated that all types of coping strategies were significantly less helpful in dealing with the stressor, and their actions were perceived as less effective than those of the non-depressed sample. The authors concluded that if the depressed elders perceived the situation and/or their actions to be hopeless, the coping strategies will not be experienced as helpful strategies by them.

Coping with aging

McCrae (1984, 1989) employed two large samples, in cross-sectional studies, to explore the age differences and changes in the use of coping mechanisms. Overall, he reported that coping behaviors have little relationship with aging. Instead, he found, young people and old people employed different coping mechanisms because of differences in the stressful situations that they faced. Nevertheless, confrontation, hostility, and fantasy were found to be used less in adult and aged groups than in the younger group.

In summary, coping among older persons has received increased attention during the past decade. However, most of the studies used primarily Caucasian sample members. Very little is known about elderly persons from different cultural groups and their coping styles.

Chinese Views of Health, Stress, And Coping

The Chinese hold different assumptions about health, illness, aging, and stress than do Westerners (Kleinman, 1985, 1988). The Chinese believe that health and illness are based on the harmony or balance of yin

and yang, energies or forces that interact in the nature of the universe. If a person is sick, it is believed that the sickness is the result of an imbalance of yin and yang (Cheng, 1970; Louie, 1985). The Chinese accept physical illness much better than mental illness (Kleinman, 1988). Age is valued by the Chinese because it is associated with wisdom and respect. Stress in the Chinese culture usually comes from shame. The Chinese are afraid of being teased or reprimanded by others (Louie, 1985). In addition, shame, particularly over a mental illness, reflects not only on the identified patient but on the entire family, making children in the family unmarriageable which is a great tragedy by Chinese standards (Kleinman, 1988). For example, saying a person has "neurasthenia/the weak nerve" is much more acceptable both to the patient as well as in society than stating the person has "neurosis". In addition, the Chinese society accepts and values aging. For example, an elderly Chinese person feels proud of his/her age and enjoys the support and care offered by the family. However, he or she may not be motivated towards independence and autonomy, two aspects of life highly valued by Americans (de Tocqueville, 1945) but less valued by interdependent Asians. Although immigrants come to America and may have been here for decades, values change slowly and many immigrant group hold on to their traditional values. Therefore, it is necessary to understand Chinese immigrant older adults from the cultural perspective of their country of origin.

One's cultural perspective affects the perception and expression of psychological stress (Helman, 1990; Leininger, 1978). Persons who have

migrated to a new country and culture are found to have greater stress than their fellow countrymen who remain in their native countries (Aroian & Patsdaughter, 1989; Hitch & Rack, 1980; Hull, 1979). Studies also have demonstrated that immigrants are at higher risk for cancer, chronic illness, depression, and schizophrenia, all which could be considered poor adaptation outcomes that may be influenced by ineffective coping (Carpenter & Brockington, 1980; Glade, Zalvidar, & Mayer, 1976; Schwartz, 1975; Westermeyer, 1986). Hence, there is a need to understand coping strategies among elderly people who have experienced cross cultural migration. In particular, little is known about the coping strategies employed by Chinese immigrant elders although their cultural perceptions about aging and health are clearly different from North Americans' perceptions.

## Conceptual Framework

Based on Lazarus and his colleagues' coping theory, Jalowiec developed the original and revised Jalowiec Coping Scale (Jalowiec, 1977 & 1987). Lazarus et. al. (1981, 1984) identified two "appraisals", which are the ways people interpret their experience. In their model, the primary appraisal is how a person interprets his/her experience. Situations in this model may be perceived as stressful, challenging, or irrelevant. The secondary appraisal is a complex evaluative process to determine potential ways to manage "challenging" to "stressful" situations (Lazarus et. al., 1984, p.35). Coping is conceptualized as a series of cognitive and/or behavioral activities used to manage a specific situation that a person has

appraised as stressful. There are two forms of coping used to deal with stressful situations: emotional-focused strategies and problem-focused strategies. Emotional-focused strategies may change the meaning of a stressful transaction for the individual without changing the objective situation. These strategies include avoidance, minimization, distancing, selective attention, positive comparisons, and wresting positive value from negative events. Different from emotional-focused strategies, problem-focused strategies focus primarily on the objective environment and are aimed at solving the problem. These strategies include defining the problem, generating alternative solutions, weighting the alternatives in terms of their cost and benefits, choosing among them, and acting.

The Jalowiec Coping Scale (JCS), based on the Lazarus et. al's framework, consists of problem-oriented and affective-oriented coping strategies. Three factors account for the individual coping behaviors on the original JSC: confrontive, emotive, and palliative coping strategies. In 1987, Jalowiec revised the Jalowiec Coping Scale to include eight different coping styles: confrontive (confront the situation, face up to the problem, and constructive problem-solving), evasive (evasive and avoidant activities used in coping with a situation), optimistic (positive thinking, positive outlook, and positive comparisons), fatalistic (pessimism, hopelessness, and feeling of little control over the situation), emotive (expressing and releasing emotions, and ventilating feelings), palliative (trying to reduce or control distress by making the person feel better), supportant (using support

systems: personal. professional, and spiritual), and self-reliant (depending on yourself rather than on others in dealing with the situation).

## Purpose Of the Study

The primary purpose of this study was to test the reliability and validity of a Chinese version of the Jalowiec Coping scale, revised version, a standardized, self-report instrument to measure coping. The secondary purpose was to describe coping strategies used by a sample of older Chinese immigrants in order to explore cultural differences in coping among older adults. A major objective of this study was to determine if a Chinese version of the revised Jalowiec Coping Scale could be substituted for the English version. Development of such a scale would facilitate to help the Chinese speaking exploring cross cultural similarities and differences in coping.

## Research Questions

The research questions addressed in this study were:

(1) How internally consistent is the Chinese version of the revised Jalowiec coping scale? How internally consistent is the English version of the revised Jalowiec coping scale?

(2) How well does the Chinese version substitute for the English version of the revised Jalowiec Coping Scale (i.e. are the scores significantly correlated)?

(3) How adequate is the content and concurrent validity of the Chinese version of the revised Jalowiec Coping Scale?

(4) What is the profile of coping styles used by the sample of bilingual older Chinese immigrants as measured by the Chinese version of the revised Jalowiec Coping Scale?

# Chapter II

## Methods

### Design

This study was both methodological and descriptive using a descriptive-correlational design. The study involved translating the revised Jalowiec Coping Scale into Chinese as well as testing the Chinese version for its reliability and validity. Specifically, content and concurrent validity were examined, and internal consistency of the subscales and total score were determined. Additionally, the coping strategies utilized by a sample of elderly Chinese immigrants were assessed.

### Subjects

The sample for this study was selected from the older adult Chinese population residing in the Northwest region of the country. A convenience sampling technique and a "snow ball" method to find additional subjects were used. Potential subjects were obtained from a Chinese social service center and from a social/business organization, both of which primary served the Chinese population of a metropolitan area in Oregon. Other potential subjects were obtained from a social organization concentrating on people from Taiwan, and from two churches. Additional potential subjects were identified by associates of the researcher. Lastly, 20 potential subjects were identified by other participants in this study. The criteria for sample inclusion consisted of: (1) Chinese elderly persons 60 years old or older; (2) who understood both English and Chinese; and (3) who had the ability to participate and independently finish both rating scales.

The researcher contacted 50 persons who fit the inclusion criteria. Of the 50 potential subjects, 16 refused to participate. Their reasons included: a) they did not know the researcher and stated they felt insecure; b) they were "too busy" to participate; c) they claimed that aged persons do not want to use their "brain" and "be examined"; d) they stated they were "not interested in this project"; and e) they stated that they "don't have any stress". The researcher visited the 34 persons who agreed to participate. However, one person could not comprehend either scale and two persons were unable to comprehend the English version. A total of 31 persons (15 men and 16 women) completed both the Chinese and English versions. The sample consisted of individuals who were born and lived mainly in countries such as Taiwan (ROC), China (PRC), Hong Kong; two were American-born Chinese who had also lived in Asian Countries. Refugees were not included.

The sample ranged in age from 60 to 80 years and the average age was 68.83 (Standard Derivation (sd) = 5.58). Their years of education ranged from 12 to 22, with a mean of 16.74 (sd = 2.66). Their years in the United States ranged widely from 0.58 year to 69 years. The mean was 21.57 (sd = 18.30). Most of the sample was retired or unemployed (87%). Only 13% were working part-time or full-time. Additional demographic information is provided in Table 1. In addition, subjective self-evaluation of English and Chinese reading ability of the subjects, and the researcher's assessment of the subject's English and Chinese reading ability are provided in Table 2.

Table 1

Demographic Information For The Sample Of Elderly Chinese Immigrants

| Category | n[a] | Percent |
|---|---|---|
| Marital Status | | |
| Married | 26 | 84 |
| Widowed | 5 | 16 |
| Country of Origin | | |
| Taiwan, ROC | 11 | 35 |
| China | 15 | 48 |
| Hong Kong | 3 | 10 |
| American born Chinese | 2 | 6 |
| Religion | | |
| Buddhism | 1 | 3 |
| Catholicism | 1 | 3 |
| Christianity | 17 | 55 |
| None | 12 | 39 |

[a] $n = 31$

Table 2

Assessment of English and Chinese Reading Ability

| Category | n[a] | Percent |
|---|---|---|
| Subjective Self-evaluation of English Reading Ability | | |
| A little | 6 | 19 |
| Quite a bit | 10 | 32 |
| A lot | 15 | 48 |
| Subjective Self-evaluation of Chinese Reading Ability | | |
| A little | 0 | 0 |
| Quite a bit | 3 | 10 |
| A lot | 28 | 90 |
| Researcher Assessment of English Reading Ability | | |
| Easier | 26 | 84 |
| Harder | 5 | 16 |
| Researcher Assessment of Chinese Reading Ability | | |
| Easier | 27 | 87 |
| Harder | 4 | 13 |

[a]n = 31

Data Collection Instruments

English and Chinese version of the rJCS. Data were collected using the revised Jalowiec Coping Scale (rJCS, see Appendix A) and the translated Chinese version (rJCS-C, see Appendix B). In 1987, Jalowiec revised the original 40-item Jalowiec Coping Scale and expanded it to 60 items, using a four point rating scale (rJCS). The range of scores on the rJCS is from 0 to 180. This revised version includes 8 different coping styles as described previously. Each item has two parts. Part A asks how often the individual uses a particular coping method. Part B asks how effective is the coping method used. For example, item 1. "Worried about the problem", can be answered from score 0 (never used) to 3 (often used) in part A; and from score 0 (not helpful) to 3 (very helpful) in part B. The Jalowiec Coping Scale and its revised version has been used with more than 200 different groups, including cultural subsamples and samples with specific illness or physical disabilities. Reliability and validity have been examined on almost all subscales with most sample studied (Jalowiec, 1989).

Reliability. Reliability reflects the consistency with which an instrument measures a concept. In others word, reliability is defined as the absence of errors of measurement. There are several methods for estimating reliability. One such method, internal consistency, refers to the homogeneity of the measuring instrument. The higher the intercorrelations, the greater the instrument's internal consistency. Cronbach's alpha and item-total correlation are common approaches for estimating internal

consistency. Equivalence refers to the degree of similarity between two or more forms of a measuring instrument and is determined by correlating the scores from the two forms of the test (Woods and Catanzaro, 1988). The reliability is highly related to both the number of items in an instrument and to the size of the sample.

Jalowiec (1989) reported on the reliability of the rJCS established with a sample of adult cardiac transplant patients (N=35). The internal consistency coefficients from this report were used as a comparison for coefficients obtained in this study because of the similar sample sizes. Regarding the internal consistency of the scale, she reported alpha reliabilities for part A (total use score, USE) as .88, and part B (total effective score, EFF) as .81. The alpha reliabilities of USE and EFF for each subscale were: confrontive (.74 & .58), evasive (.70 & .58), optimistic (.75 & .72), fatalistic (.47 & .54), emotive (.56 & .06), palliative (.21 & .27), supportant (.55 & .65), and self-reliant (.58 & .39). As can be noted, the internal consistency was low for the "fatalistic type" and "palliative type" subscale in her report. Jalowiec noted that acceptable reliability was "not satisfied" for these subscales.

Validity. Validity refers to degree to which an instrument measures what it is supposed to be measuring. There are several methods to measure validity. Content validity refers to the sampling adequacy of the content area being measured, and whether the measure and the items it contains really are representative of the domain being studied. Concurrent validity refers to the relationship between one measure and another measure

of the same phenomenon. Predictive validity refers to the degree to which an instrument can predict some criterion obtained at a future time (Woods and Catanzaro, 1988).

According to Jalowiec (1989), predictive validity was supported by high correlations of Jalowiec Coping Scale with a coping ability rating, level of stress rating, and stressor scale score. That is, greater use of either palliative coping or evasive coping predicted that persons would feel that they were coping poorly. In addition, persons rating their coping methods as less effective were found to have a higher stress level. However, concurrent validity was not supported. According to Jalowiec, this was demonstrated by comparing Jalowiec coping scale scores with a one-item coping ability rating. That is, when people were asked to rate their coping ability using a single item, their scores did not correlate significantly with the total use score of the rJCS.

Chinese version. The Chinese version of the rJCS was developed by the researcher after consultation with nine persons who were bilingual in Chinese and English and had diverse geographic backgrounds. The researcher translated each item of the English version of the rJCS into Chinese. To evaluate content validity, two bilingual persons other than the nine consultants, an immigrant from Taiwan and a graduate student from China, were asked to complete back-translations of these items from Chinese to English to determine whether items evoke the same functional responses in both languages (see Appendix C). The results are addressed in the finding section.

Demographic data form. The demographic data form is a brief questionnaire (see Appendix D) designed to obtain information about each subject including age, sex, marital status, education, occupation, years in the United States, country of origin. It also includes a scale designed to ascertain the researcher's perception of the subject's ability to read both English and Chinese versions of the rJCS.

Procedures for Data Collection

First, approval was obtained from the Human Subjects Committee at Oregon Health Sciences University. Potential subjects were contacted by phone or in person, given a brief oral explanation of the study's purpose, and invited to participate in the study. After their agreement to participate was obtained, participants were asked for names of other potential subjects who met the criteria for inclusion in the study. Appointments were made with subjects and the researcher met with them at their homes or places they preferred. Each subject completed the two rating scales and the demographic data form. The researcher gave each subject a folder containing the English revision of the rJCS (A), the Chinese version of the rJCS (B), and the demographic data form. The order of rJCS (A) and rJCS-C (B) was determined randomly and pre-arranged in the folder; the demographic data form was completed between administration of the two rJCS forms. These procedures for administration of the two data collection instruments were selected to mitigate against a response set bias and to reduce the influence of memory. However, this random assignment of instrument completion was not carried out as the researcher expected

because some subjects had their own preference. For instance, some couples wanted to work on forms in the same sequence even through they completed them independently. Nevertheless, 15 of the 31 subjects completed the English version first, and 16 of them completed the Chinese version first. Responding to all three instruments took a total of 20 minutes to one hour and forty minutes. The mean length was 49 minutes. The researcher stayed with each subject during the data collecting process. When the subject had questions about items, the researcher responded suggesting the subject answer in terms of "what do you think the question means".

Protection of Human Subjects

Informed consent. Informed consent was obtained verbally from subjects. For this population, written consent forms may cause undue anxiety. Although bilingual and literate in both English and Chinese, Chinese immigrants are often unaccustomed to signing papers. A written explanation (see Appendix E) was given to all participants describing the purposes of the research, potential benefits and risks, the rights of each participant, and guaranteeing confidentiality.

Confidentiality. Anonymity was assured through the use of code numbers for each subject. Only the researcher had access to the names of the subjects, which were kept in a separate, locked file. The responses of individual subjects were kept confidential and only group data reported.

Potential risks and benefits. Potential benefits for the subjects included the opportunity to reflect upon their coping methods and their

effectiveness, contribution to the study, and the attention of the researcher. Potential risks to the subjects included emotion they might feel when they were reminded of ineffective coping methods, personal losses, or stressors.

# Chapter III

## Result and Discussion

In this chapter the results and discussion of findings will be addressed according to the research questions. Beforehand, it is necessary to address that the rJCS is divided into two components, use and effectiveness. It was decided that the most salient aspect of the rJCS to the current study is the component concerned with "use". Therefore, discussion will focus on this component of the scale.

Research question 1.

How internally consistent is the Chinese version of the revised Jalowiec coping scale? How internally consistent is the English version of the revised Jalowiec coping scale?

To answer the first part of the research question 1, Cronbach's alpha coefficient, average interitem correlations, and the item-total correlations of each subscale in both the Chinese and the English version of the rJCS were computed. The results are provided in Table 3.

For the purpose of this study, acceptable levels of internal consistency were set at .70 or above. Jalowiec (1989) in her discussion of the scale suggests that Cronbach's alpha of .70 or above meets "acceptable" standards. In this sample (N=31), the confrontive, evasive, optimistic, fatalistic, and supportant coping subscales in the Chinese rJCS have "acceptable" levels of internal consistency. In other words, the Chinese rJCS is internally consistent in its measurement of these five coping

Table 3

Cronbach's Alpha and Average Interitem Correlation for the Chinese and the English Versions of the Revised Jalowiec Coping Scale

| Coping Style | USE in Chinese | USE in English | USE in rJCS[a] | EFF[b] in Chinese | EFF in English | EFF in rJCS |
|---|---|---|---|---|---|---|
| Confrontive (n=10)[e] | .91[c]* .52[d] | .80* .30 | .74 | .91* .54 | .89* .46 | .58 |
| Evasive (n=13) | .82* .27 | .79* .22 | .70 | .81* .24 | .71* .16 | .58 |
| Optimistic (n=9) | .79* .30 | .75* .28 | .75 | .82* .34 | .77* .28 | .72 |
| Fatalistic (n=4) | .71* .38 | .45* .18 | .47 | .76* .45 | .50* .20 | .54 |
| Emotive (n=5) | .57* .23 | .24 .06 | .56 | .43* .18 | .35* .13 | .06 |
| Palliative (n=7) | .58* .12 | .66* .18 | .21 | .66* .17 | .67* .18 | .27 |
| Supportant (n=5) | .70* .31 | .68* .31 | .55 | .63* .27 | .54* .20 | .65 |
| Self-reliant (n=7) | .69* .26 | .58* .17 | .58 | .71* .31 | .75* .31 | .39 |
| Total (n=60) | .94* .19 | .91* .14 | .88 | .94* .19 | .91* .15 | .81 |

[a] Cronbach's alpha report by Jalowiec and Grandy (1989)
[b] Effectiveness
[c] Cronbach's alpha correlation coefficient
[d] Average interitem correlation coefficient
[e] Number of items in subscale

styles. Furthermore, the self-reliant subscale has a Cronbach's alpha (.69) on the borderline of being acceptable, indicating a fairly high internal consistency. However, the emotive and palliative coping style subscales do not meet acceptable criterion.

To answer the second part of this question, the internal consistency coefficients of the Chinese and English versions of the rJCS were compared. Since Cronbach's alpha is interpreted in the same fashion as other reliability coefficients and the higher values reflect higher degree of internal consistency, the equivalence between the Chinese and the English versions of rJCS was considered. In this sample, the confrontive, evasive, and optimistic coping subscales in the English rJCS have "acceptable levels" of internal consistency, consistent with the results of the Chinese version. For the supportant subscale, the Cronbach's alpha in both versions are fairly close (.70 in the Chinese and .68 in English). Neither the emotive or palliative nor self-reliant subscales have an acceptable alpha in the English and Chinese versions. In other words, these three subscales in both versions do not meet the criterion for the internal consistency coefficient set for this study. The equivalence of both versions were supported by these unacceptable subscales. However, the alpha coefficient for the fatalistic subscale is acceptable in the Chinese version (.71) but unacceptable in the English version (.45). This significant difference will be further explored and will be addressed later. In conclusion, the Cronbach's alpha coefficients of the subscales of the English version of the rJCS are generally similar to those in the report of Jalowiec (1989) except for the emotive and palliative

subscales (.24 & .66 in the English and .56 & .21 from her report respectively). The stronger internal consistency of the Chinese versions of the rJCS is supported by the overall higher Cronbach's alpha. In other words, the Chinese version of the rJCS demonstrated stronger internal consistency than the English version with this sample of older Chinese immigrants.

Table 4. provides the correlations between subscales in the English and the Chinese versions of the rJCS. Scores on the confrontive ($r = .82$), evasive ($r = .79$), palliative ($r = .81$), and supportant ($r = .93$) subscales of the rJCS are highly correlated with each other. Scores on the optimistic ($r = .70$), self-reliant ($r = .70$), fatalistic ($r = .69$) and emotive ($r = .64$) subscales of the rJCS are moderately correlated. The total scale correlation is also high ($r = .84$). These results demonstrate that this sample rated their "use" on the confrontive, evasive, palliative, and supportant subscales of both the Chinese and the English versions of the revised Jalowiec Coping Scale very similarly.

When the Cronbach's alpha and the Pearson product moment correlation coefficient are taken into consideration, the confrontive, evasive, optimistic, and supportant subscales have significant levels of reliability. Fatalistic, emotive, palliative, and self-reliant subscales have less acceptable levels of reliability. Reasons for less acceptable reliability may relate to selected scale items. Appendix F provides item-total correlations for each subscale.

Table 4

Correlations Between the Chinese and English Versions of the Subscales of the Revised Jalowiec Coping Scale

| Coping Style | USE | EFF |
|---|---|---|
| Confrontive (n = 10)[a] | .82* | .85* |
| Evasive (n = 13) | .79* | .83* |
| Optimistic (N = 9) | .70* | .76* |
| Fatalistic (n = 4) | .69* | .60* |
| Emotive (n = 5) | .64* | .69* |
| Palliative (n = 7) | .81* | .84* |
| Supportant (n = 5) | .93* | .91* |
| Self-reliant (n = 7) | .70* | .84* |
| Total (n = 60) | .84* | .86* |

[a]n = number of items in subscales

* $p \leq .001$, one-tailed.

For the emotive subscale, the extremely low item-scale correlation (.03 in the Chinese and -.16 in the English version) suggests that item #46, "did something impulsive or risky that you would not usually do", is not related to other emotive coping items in either the English or the Chinese versions of the rJCS. This item may not represent a coping method that older Chinese adults would use in contrast to the other four methods in the scale.

For the palliative coping subscale, item #3, "ate or smoke more than usual" seems to be problematic (.08 in the Chinese and .03 in the English). In discussion with subjects after they answered the questions, subjects suggested that item #3 is actually measuring two activities because "eating and smoking" are not synonymous. The vague wording made them confused. In addition, item #53 " took medications to reduce tension" is very low to negatively related to the palliative subscale (-.32 in the Chinese and .17 in English) as well as to the total scale score (-.30 in the Chinese and -.13 in English). Subjects described very negative attitudes about using medications as a coping method. However, their responses may indicate a social response set bias rather than a measurement of actual coping. Moreover, since a person either takes medication or not, a dichotomous item may not be appropriate in a point Likert type scale. It may be more appropriate to measure this coping method separately rather than including it in the palliative subscale.

In the self-reliant subscale, item #19, "keep your feelings to yourself", has a low correlation with the self-reliant subscale (.14 in the Chinese and

.09 in the English). Some subjects indicated they did not understand the meaning of the English version and some had difficulty understanding the Chinese translation. The Chinese translation of this item may need to explain more of this coping method, such as an idiom.

Research question 2.

How well does the Chinese version substitute for the English version of the revised Jalowiec Coping Scale (i.e. are the scores significantly correlated)?

Equivalence is measured by two parallel instruments which are administered to individuals at about the same time. Student's t-tests were used to analyze similarities and differences between the means of the subscales and totals scales of the Chinese and the English versions of the rJCS. Most often in research, investigators hope for some level of significant difference between groups. However, in this study, because of the concern for substitutability of the Chinese version for the English version of the rJCS, similar group means on the two versions would suggest translation equivalence. In other words, non-significant t-test ($-1.96 < t < 1.96$) were expected.

Table 5. provides mean, standard deviation (sd), and t-test results for the Chinese and the English versions in the "use" part. (Please see appendix G for t-test result for the "effectiveness" part). When the t-tests for the "Use" subscales are compared, no statistically significant differences are found between mean scores on the Chinese and English versions except for the fatalistic subscale. When the correlation coefficients computed between the Chinese and the English versions of the rJCS are compared (see Table 4), the confrontive, evasive, palliative, supportant, and total scores are highly correlated (.82, .79, .81, .93, .84) as previously noted. The optimistic and fatalistic subscales on both versions have a moderately

high correlation (.70 and .69 respectively). Even through the palliative subscale lacks strong internal consistency (.58 in the Chinese and .66 in the English), the high correlation between the two versions (.81) of this subscale suggests that the Chinese version is able to substitute for the English version. In addition, the t-test results support this equivalence.

As shown on table 5, the mean score in the fatalistic subscale is significantly higher on the English than the Chinese version. Cronbach's alpha is significantly higher on the Chinese version (.71 vs .45). In consideration of the Chinese culture, the Chinese version of this subscale contains a Chinese idiom with similar meanings in each item in order to increase understanding. For example, item #23, "resigned yourself to the situation because things look hopeless", a Chinese idiom is able to represent similar meanings for each item. The difference mean score and in the Cronbach's alphas for the two versions may have been caused by differing levels of understanding of the item language in these two versions.

The emotive subscale contains 5 items. The subscale has a low Cronbach's alpha indicating poor internal consistency. The English and Chinese version are moderately correlated ($r = .64$). However, the t-test indicates non-significant difference ($t = -.805$), which means there was no significant difference in the samples responses to both versions. However, one would have less confidence in substituting the Chinese version for the English version of the subscale.

The self-reliant subscale has a moderate correlation between two versions (.70). The internal consistency is less acceptable (.69 in the

Chinese and .58 in the English), hence, one's confidence in substitutability is limited.

Table 5.

Comparison of Mean "Use" Scores on the Chinese and the English Versions of the Revised Jalowiec Coping Scale

| | Mean | | sd | | | |
|---|---|---|---|---|---|---|
| | Chinese | English | Chinese | English | t | p value |
| confrontiv | 1.96 | 1.99 | .67 | .47 | -.383 | .70 |
| evasive | 1.08 | 1.14 | .52 | .49 | -1.117 | .27 |
| optimistic | 1.67 | 1.73 | .54 | .55 | -.785 | .44 |
| fatalistic | 1.11 | 1.35 | .78 | .61 | -2.249 | .03* |
| emotive | .88 | .95 | .56 | .46 | -.805 | .43 |
| palliative | .99 | .95 | .48 | .56 | .619 | .54 |
| supportant | 1.25 | 1.25 | .76 | .74 | .000 | 1.00 |
| self-reliant | 1.87 | 1.84 | .52 | .49 | .399 | .69 |
| total | 1.40 | 1.44 | .43 | .35 | -.979 | .34 |

* $p \leq .01$, two-tailed.

Research Question 3.

How adequate is the content and concurrent validity of the Chinese version of the revised Jalowiec Coping Scale?

Content validity During the development of the Chinese version of the rJCS, nine bilingual persons were consulted to identified language that was equivalent to the English version. Then two bilingual persons completed back-translations from Chinese to English. These back translations were evaluated by the researcher and her adviser separately to determine the degree to which the two versions matched or were equivalent. In other words, was the English produced by the back translations consistent with the English of the original version of the rJCS? Seven of 60 items were found to be less consistent with the English version. However, in each case, one back-translation demonstrated a higher degree of equivalence with the English version; usually the less consistent English back translation had been done by the person who had less experience with English. Hence, no changes were made in these items.

Additionally, item #9 of the scale, "expect the worst that could happen", was judged not to be an equivalent in the Chinese version of the rJCS. The researcher used a Chinese idiom that may not have accurately represented the meaning of the English version. After evaluation, this item was corrected before administration. Item #23 of the scale, "resigned yourself to the situation because things looked hopeless" was found to be less equivalent in both back translations. Because there is no way to improve this translation, it was left unchanged. However, after

administration, the item-to-item correlation (alpha = .77 in use part) supported the English/Chinese equivalence.

Concurrent Validity Criterion-related validity refers to the relationship between two measures of the same phenomenon. Concurrent validity, one type of criterion validity, represents the degree of correlation between two measures of the same concept administrated at the same point of time. Pearson correlation (pearson r) is referred to as the validity coefficient (Woods and Catanzaro, 1988; Polit and Hungler, 1987). Subscale-to-subscale and subscale-to-total scale correlation coefficients for the English and Chinese subscales on the "use" part of both versions were computed and presented in Table 4. If a subscale score in the "use" part of the English version is significantly correlated with the subscale score in the "use" part of the Chinese version, this means that the sample was consistent in reporting their use of a coping style. These correlations were reported in Table 4. As noted previously, there were no statistically significant difference between scores on the Chinese and the English versions of the subscales.

Additionally, the equivalence between the two versions of the scale was determined by examining the extent to which use of one coping style was significantly related to the use of another coping style. If a subscale score is significantly correlated with another subscale ($p \leq .01$), this means that when one coping style is associated with the use of another style (i.e. they are used concurrently). Likewise, if the correlations are low, then the use of one coping style is not associated with the other. Hence, the data

were examined to determine the amount of agreement between the inter-subscale correlation coefficients for the English and the Chinese version. In other words, was a significant relationship between two subscale scores reported for both versions; conversely was a nonsignificant relationship between two subscales reported for both version?

Agreement between two versions (both significantly correlated or non-significantly correlated) supported the equivalence of the two versions. Disagreement between two versions (significantly correlated in one version but not in the other) did not support the equivalence of the versions. Table 6. and Table 7. provide the results of this examination for concurrent validity. Twenty-seven correlations (75%) were in agreement; 9 correlations (25%) were in disagreement between the two versions (Table 6). There were 13 significant correlations and 14 non-significant correlations between subscales in both Chinese and English versions. However, there were eight significant correlations in the Chinese version but not in the English version, and one significant correlation in the English version but not in Chinese. These findings support adequate concurrent validity between the English and the Chinese version of the rJCS.

Table 6.

Pearson Product Moment Correlation Coefficient for the "Use" Part in the Chinese and the English Versions of the Revised Jalowiec Coping Scale

| | Con. | Eva. | Opt. | Fat. | Emo. | Pal. | Sup. | Sel. | Total |
|---|---|---|---|---|---|---|---|---|---|
| Confron tive | 1.00 | .38[a] | .58* | .32 | .17 | .38 | .34 | .84* | .74* |
| | | .09[b] | .41 | .06 | -.02 | .29 | .28 | .68* | .60* |
| Evasive | | 1.00 | .61* | .58* | .66* | .55 | .46 | .46* | .82* |
| | | | .47* | .20 | .35 | .32 | .33 | .24 | .66* |
| Optimis- tic | | | 1.00 | .61* | .29 | .43 | .67* | .55* | .83* |
| | | | | .51* | .34 | .43 | .56* | .58* | .84* |
| Fatal- istic | | | | 1.00 | .53* | .24 | .52* | .54* | .71* |
| | | | | | .23 | .22 | .53* | .38 | .61* |
| Emotive | | | | | 1.00 | .43 | .24 | .34 | .58* |
| | | | | | | .51* | .19 | .07 | .45 |
| Pallia- tive | | | | | | 1.00 | .49* | .32 | .64* |
| | | | | | | | .26 | .32 | .63* |
| Suppor- tant | | | | | | | 1.00 | .27 | .67* |
| | | | | | | | | .29 | .65* |
| Self- reliant | | | | | | | | 1.00 | .77* |
| | | | | | | | | | .69* |
| Total | | | | | | | | | 1.00 |

*$p \leq .01$

[a] = Chinese version

[b] = English version

Table 7.

Agreement and Disagreement of Correlations between the Chinese and the English Versions of the Revised Jalowiec Coping Scale

| Agreement | | Disagreement | |
|---|---|---|---|
| Significant Correlations n = 13 | Nonsignificant Correlations n = 14 | Significant Correlations in Chinese only n = 8 | Significant Correlations in English only n = 1 |
| Con.-Fat. | Con.-Eva. | Con.-Opt. | Emo.-Pal. |
| Con.-Sel. | Con.-Fat. | Eva.-Fat. | |
| Eva.-Opt. | Con.-Emo. | Eva.-Emo. | |
| Opt.-fat. | Con.-Pal. | Fat.-Emo. | |
| Opt.-Sup. | Con.-Sup. | Pal.-Sup. | |
| Fat.-Sup. | Eva.-Pal. | Eva.-Sel. | |
| Opt.-Sel. | Eva-Sup. | Fat.-Sel. | |
| Eva.-Total | Opt.-Emo. | Emo.-Total | |
| Fat.-Total | Opt.-Pal. | | |
| Opt.-Total | Fat.-Pal. | | |
| Pal.-Total | Emo.-Sup. | | |
| Sup.-Total | Emo.-Sel. | | |
| Sel.-Total | Pal.-Sel. | | |
| | Sup.-Sel. | | |

Note. Con. = Confrontive, Eva = Evasive, Opt = Optimistic, Fat = Fatalistic, Emo = Emotive, Pal = Palliative, Sup = Supportant, Sel = Self-Reliant.

Lastly, concurrent validity of the two versions was assessed by examining item-to-item correlation coefficient between the English and the Chinese version. The item-to-item correlation coefficients between the Chinese and the English of the rJCS are provided on Table 8. As can be seen in this table, 55 items (92%) were significantly correlated ($p \leq .05$, one-tailed test). Their correlation coefficients ranged from .31 to 1.00 suggesting moderate to strong relationships between the items. Although not statistically significant , one item was found to have a moderate association between the two versions with each other (i.e. .26) while 4 items had weaker associations.

Table 8.

Item-to-item Correlations Between the Chinese and the English Versions of Revised Jalowiec Coping Scale in One-tailed Test

| $p \leq .01$ n=45 | $.01 < p \leq .05$ n=10 | $.05 < p \leq .10$ n=1 | $p > .10$ n=4 |
|---|---|---|---|
| Item #1, 2, 3, 5, 6, 8, 8, 9, 10, 11, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 34, 35, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48, 49, 51, 53, 55, 57, 58. 59, 60. | Item #4, 7, 13, 16, 18, 30, 33, 36, 50, 54. | Item #56(r=.28) | Item #27(r=.16) 40(r=.17) 41(r=.14) 52(r=.05) |

Five items (#27, #40, #41, #52, & #56) have particularly weak item-to-item correlations (i.e., r values ranged from .05 to .21). In other words, the sample answered these 5 items very differently in the Chinese and the English versions of the rJCS. For item #27, "Tried to find out more about the problem", no clear explanation seemed apparent for the difference between the item scores on the two versions of the confrontive coping subscale.

Both item #40 and item #56 belong to the evasive coping subscale. For item #40, "Put off facing up the problem", the Chinese translation has an strong negative meaning similar to "escape" and "avoid". Subjects strongly devalued an avoiding attitude during informal conversations. In other words, they believed that they should be tough by not avoiding problems. The Chinese wording may cause their defense to give a negative answer (mean score =.51). However, the English version may not arouse their defense (mean score =1.03). For item # 56, "Avoid being with people", some subjects reflected that they did not understand the Chinese version. However, some subjects did not understand the English version and felt that they could understand the Chinese better. This contradiction may explain the low equivalence. The Chinese translation of the item needs to be improved.

In addition, both item #41 and item #52 belong to the self-reliant coping subscale. The low correlation of item #41, "Tried to keep your feelings under control" may result from different wording for "feeling" and "emotion". In Chinese "emotion" usually is a more negative word similar to

"temper". The Chinese version used "emotion" instead of "feeling". However, there seems to be no way to improve this item. Item #52, "Preferred to work thinks out yourself", no clear explanation seemed apparent for the difference between the item scores on the two versions of the rJCS.

Research question 4.

What is the profile of coping styles used by the sample of bilingual older Chinese immigrants as measured by the Chinese version of the rJCS?

According to the mean scores of the Chinese version of the rJCS, these older of Chinese adults used confrontive, optimistic, and self-reliant coping styles. Informal discussions during visits also supported this finding. Most subjects told the researcher that they had moved a lot because of the World War II and other disasters such as the Culture Revolution. Subjects gave examples of events related to wars, such as rebuilding their homes again and again. Some subjects also mentioned that separation from their family and/or political oppression were major stressors experienced in the past. Even after decades, they still talked about their stories in tears. In summary, the Chinese older immigrants have had tremendous stress from the war. Even their moving and immigration may be the results of avoiding the disaster of wars and trying to find a "secure" place.

Besides the wars, bereaved subjects mentioned the lost of a spouse as being stressful. Some subjects also addressed lost of physical strength and health as a major stressor. An interesting and important coping strategies mentioned by several subjects was to play with their grandchild(ren). They suggested that playing with grandchild(ren) is a very useful coping strategy when they are under stress because it helps them to feel refreshed.

In summary, subjects stated that they have the spirit of the pioneers, who always faced up to problems, used strong will, and depended on

themselves rather than others. They also had been very brave to give up their homes somewhere else to come to the United States. For example, subjects stated "you have to depend on yourself, other people are not dependable", "don't dream the difficulty will disappear". Maybe this is a reason that their scores seemed more like those we associated with the pioneers of American rather than with the stereotype of the "interdependent Asian people". It may be that older Chinese adults who were willing to risk immigration to a foreign/unknown land and culture were those who relied on coping strategies associated with effective coping and positive psychological adjustment (as noted in previous studies). Hence, although the events related to the war and immigration were stressful, these individuals also views them as challenges to be mastered or overcome.

# Chapter IV

## Summary and Conclusion

The purpose of this study was to develop a Chinese version of the revised Jalowiec Coping Scale and to test its reliability and validity with a sample of older Chinese immigrants. The coping theory developed by Lazarus and Folkman was chosen as conceptual framework since it served as the underpinning for the rJCS. The sample consisted of 31 bilingual Chinese older adults (mean age = 68.83) living in the Pacific Northwest. Each subject completed the English and Chinese versions of the rJCS and a demographic data sheet. The findings supported that four of eight subscales of the Chinese rJCS are highly equivalent to their English counterparts (see Table 9). These four subscales are confrontive, evasive, palliative, and supportant. Additionally, two subscales, optimistic and self-reliant, are moderately equivalent and could be substituted for their English counterpart. However, the fatalistic and the emotive subscales are less equivalent and require further refinement before one could substitute them with confidence. Overall, the total scale is acceptable according to the preset internal consistency criterion established by Jalowiec. The most common coping styles used by this older Chinese immigrant used were the confrontive, optimistic, and self-reliant coping styles. This profile is consistent with persons who effectively copy with stressful events and may reflect the "pioneer spirit" of persons who chose to immigrate to a foreign country and culture.

Table 9.

Evaluation of Equivalence of the Subscales Between the Chinese and the English Versions of the Revised Jalowiec Coping Scale

| Highly equivalent | Moderately equivalent | Less Equivalent |
|---|---|---|
| confrontive<br>evasive<br>palliative<br>supportant | optimistic<br>self-reliant | fatalistic<br>emotive |

## Significance for Nursing Practice and Research

The Chinese version had equivalent or higher internal consistency reliabilities and inter-item reliabilities than the English version, with the exception of the palliative coping subscale. The fatalistic and the emotive subscales had higher Cronbach's alpha reliabilities on the Chinese version. This suggests that these translated scales better expressed the feelings and values of the Chinese older adults better than did the English versions of the scales. However, the concurrent validity was not strong enough to support the equivalence of the Chinese and English versions of these two subscales. Further refinement of the fatalistic and emotive subscales may be necessary in order to strengthen the substitutability of the coping measure.

This study examined coping among a specific culture of older immigrants and has furthered nursing science in its understanding. A coping profile of older Chinese immigrants was developed. This profile may be helpful to nurses and other health professionals in understanding coping styles of Chinese speaking clients encountered in clinical situations. The

major limitation was that results from a highly educated sample may not be generalizable to all Chinese older adult immigrants.

One purpose of this study was to develop a translation of a standardized instrument for use with a different ethnic group. In the United States, because of their limited English ability, ethnic groups may give insufficient voice to their concerns. However, they may have unmet needs which nursing could address. During the data collection, younger family members often asked the researcher to study the stress produce by caregiving to their older family members. Moreover, some subjects were delighted to be asked to talk about how they coped because they reported receiving little concern from others about their physical and emotional stress, and how they dealt with it.

This study raised several questions which are appropriate for further study. The Chinese version of the rJCS needs to be tested on a larger, random sample and with other than an immigrant population in order to enhance generalizability of the Chinese version. Changes may need to be made in the fatalistic and the emotive subscales to enhance the instrument validity and reliability. Additionally, to improve the internal consistency of the palliative subscale, consideration should be given to deleting item #53, "took medication to reduce tension", from the subscale and using this as a single item. Item #3, "ate or smoked more than usual", could be divided into two questions. Lastly, items #1, #2, #3 ("worried about the problem", " hoped that things could get better", & "ate or smoke more than usual") seemed to induce defensiveness in subjects during data-collection;

therefore, a sequence rearrangement should be considered such that these items would appear later in the questionnaire. Even though some changes are necessary before further study and clinical usage of the Chinese version of the rJCS, this instrument demonstrated sufficient equivalence overall with the English version of the revised Jalowiec Coping Scale.

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# Appendix a

## The Revised Jalowiec Coping Scale

Study # _____



# JALOWIEC COPING SCALE

This questionnaire is about how you cope with stress and tension, and what you do to handle stressful situations. In particular, I am interested in how you have coped with the stress of:

_____

This questionnaire lists many different ways of coping with stress. Some people use a lot of different coping methods; some people use only a few.

You will be asked two questions about each different way of coping with stress:

## Part A

**How often have you used that coping method to handle the stress listed above?**

For each coping method listed, circle one number in Part A to show how often you have used that method to cope with the stress listed above. The meaning of the numbers in Part A is as follows:

0 = never used
1 = seldom used
2 = sometimes used
3 = often used

## Part B

**If you have used that coping method, how helpful was it in dealing with that stress?**

For each coping method that you have used, circle a number in Part B to show how helpful that method was in coping with the stress listed above. The meaning of the numbers in Part B is as follows:

0 = not helpful
1 = slightly helpful
2 = fairly helpful
3 = very helpful

**If you did not use a particular coping method, then do not circle any number in Part B for that coping method.**

| COPING METHODS | Part A How often have you used each coping method? | | | | Part B If you have used that coping method, how helpful was it? | | | |
|---|---|---|---|---|---|---|---|---|
| | Never Used | Seldom Used | Sometimes Used | Often Used | Not Helpful | Slightly Helpful | Fairly Helpful | Very Helpful |
| 1. Worried about the problem | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 2. Hoped that things would get better | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 3. Ate or smoked more than usual | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 4. Thought out different ways to handle the situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 5. Told yourself that things could be much worse | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 6. Exercised or did some physical activity | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 7. Tried to get away from the problem for a while | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 8. Got mad and let off steam | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 9. Expected the worst that could happen | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 10. Tried to put the problem out of your mind and think of something else | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 11. Talked the problem over with family or friends | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 12. Accepted the situation because very little could be done | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 13. Tried to look at the problem objectively and see all sides | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 14. Daydreamed about a better life | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 15. Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor) | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 16. Tried to keep the situation under control | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 17. Prayed or put your trust in God | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 18. Tried to get out of the situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 19. Kept your feelings to yourself | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 20. Told yourself that the problem was someone else's fault | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 21. Waited to see what would happen | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 22. Wanted to be alone to think things out | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 23. Resigned yourself to the situation because things looked hopeless | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |

| COPING METHODS | Part A How often have you used each coping method? | | | | Part B If you have used that coping method, how helpful was it? | | | |
|---|---|---|---|---|---|---|---|---|
| | Never Used | Seldom Used | Sometimes Used | Often Used | Not Helpful | Slightly Helpful | Fairly Helpful | Very Helpful |
| 24. Took out your tensions on someone else | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 25. Tried to change the situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 26. Used relaxation techniques | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 27. Tried to find out more about the problem | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 28. Slept more than usual | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 29. Tried to handle things one step at a time | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 30. Tried to keep your life as normal as possible and not let the problem interfere | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 31. Thought about how you had handled other problems in the past | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 32. Told yourself not to worry because everything would work out fine | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 33. Tried to work out a compromise | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 34. Took a drink to make yourself feel better | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 35. Let time take care of the problem | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 36. Tried to distract yourself by doing something that you enjoy | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 37. Told yourself that you could handle anything no matter how hard | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 38. Set up a plan of action | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 39. Tried to keep a sense of humor | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 40. Put off facing up to the problem | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 41. Tried to keep your feelings under control | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 42. Talked the problem over with someone who had been in a similar situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 43. Practiced in your mind what had to be done | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 44. Tried to keep busy | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 45. Learned something new in order to deal with the problem | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 46. Did something impulsive or risky that you would not usually do | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |

| COPING METHODS | Part A How often have you used each coping method? | | | | Part B If you have used that coping method, how helpful was it? | | | |
|---|---|---|---|---|---|---|---|---|
| | Never Used | Seldom Used | Sometimes Used | Often Used | Not Helpful | Slightly Helpful | Fairly Helpful | Very Helpful |
| 47. Thought about the good things in your life | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 48. Tried to ignore or avoid the problem | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 49. Compared yourself with other people who were in the same situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 50. Tried to think positively | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 51. Blamed yourself for getting into such a situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 52. Preferred to work things out yourself | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 53. Took medications to reduce tension | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 54. Tried to see the good side of the situation | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 55. Told yourself that this problem was really not that important | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 56. Avoided being with people | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 57. Tried to improve yourself in some way so you could handle the situation better | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 58. Wished that the problem would go away | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 59. Depended on others to help you out | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 60. Told yourself that you were just having some bad luck | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |



**If there are any other things you did to handle the stress mentioned at the beginning, that are not on this list, please write those coping methods in the spaces below. Then circle how often you have used each coping method, and how helpful each coping method has been.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 61. | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 62. | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 63. | 1 | 2 | 3 | 0 | 1 | 2 | 3 |

# Appendix B

## The Chinese Version of

## The Revised Jalowiec Coping Scale

# 札氏壓力應付量表

這份問卷是希望了解您應付緊張與壓力的方法，以及您如何處理壓力下的情況．這份問卷列出了不同應付壓力的方法，有些人使用很多不同的方法應付壓力，有些人只使用少數幾種．

對每一個應付壓力的方法，您會被問及兩個問題：

A.使用這個方法的機會有多少？
請圈選出您使用這個方法的多寡．每個數字的意義如下：

0.從未使用
1.很少使用
2.有時使用
3:經常使用

B.如果您曾使用這個方法，它的效果如何？
請您圈選出它的幫助有多大？

0.沒有幫助
1.有一點幫助
2.相當有幫助
3.很有幫助

* 如果您沒有使用過這種方法，B 的部分就不用回答

| 應付方法 | A.使用這個應付方法的機會有多少？ | | | | B.如果曾使用過這個方法，它多有效？ | | | |
|---|---|---|---|---|---|---|---|---|
| | 從未使用 | 很少使用 | 有時使用 | 經常使用 | 沒有幫助 | 有一點幫助 | 相當有幫助 | 很有幫助 |
| 1. 為難題擔憂 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 2. 盼望事情會好轉 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 3. 飲食或吸煙量較以往增加 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 4. 想出種種方法來處理這個情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 5. 告訴自己情況可能比現在更糟 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 6. 運動或活動筋骨 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 7. 試著跳開難題一段時間 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 8. 發怒洩憤 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 9. 預期最壞的情況可能會發生（做最壞的打算） | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 10. 試著將難題拋置腦後，而想些別的事情 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 11. 向家人或朋友傾訴難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 12. 因為怎麼做都無濟於事，所以接受這個情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 13. 試著客觀地從各個不同的角度來看難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 14. 夢想過更好的生活 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 15. 與專家討論難題（如醫生，護士，牧師，老師，諮商人員） | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 16. 試著掌握情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 17. 禱告求神保佑 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 18. 試著脫離這個情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 19. 保留自己的感受 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 20. 告訴自己難題是他人的過錯造成的 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |

| 應付方法 | A.使用這個應付方法的機會有多少？ | | | | B.如果曾使用過這個方法，它多有效？ | | | |
|---|---|---|---|---|---|---|---|---|
| | 從未使用 | 很少使用 | 有時使用 | 經常使用 | 沒有幫助 | 有一點幫助 | 相當有幫助 | 很有幫助 |
| 21. 看看會發生什麼事 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 22. 希望獨處以思考問題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 23. 聽天由命，因為事情看來已經絕望 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 24. 將自己的情緒發洩在別人身上 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 25. 試著改變情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 26. 使用身心放鬆的技巧使自己放鬆 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 27. 試著多了解難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 28. 比平時睡得多 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 29. 試著一步一步地處理問題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 30. 試著避免難題干擾，使生活儘可能如常 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 31. 回想自己過去如何處理其它難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 32. 告訴自己不用擔心，因為一切事情都會解決的（船到橋頭自然直） | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 33. 試著想出權宜之計 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 34. 喝點兒酒讓自己覺得好過些 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 35. 讓時間來處理這個難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 36. 試著做些自己喜歡的事情來分散注意力 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 37. 告訴自己 "任何事不管多困難，我都能處理" | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 38. 訂定行動的計劃 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 39. 試著保持幽默感 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 40. 拖延著不去面對難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |

| 應付方法 | A.使用這個應付方法的機會有多少？ | | | | B.如果曾使用過這個方法，它多有效？ | | | |
|---|---|---|---|---|---|---|---|---|
| | 從未使用 | 很少使用 | 有時使用 | 經常使用 | 沒有幫助 | 有一點幫助 | 相當有幫助 | 很有幫助 |
| 41. 試著控制自己的情緒 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 42. 和有過類似遭遇的人討論難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 43. 在腦海中預演該做些什麼事 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 44. 試著讓自己保持忙碌 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 45. 學習新的事物以處理難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 46. 做一些平時不會做，衝動冒險的事情 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 47. 想一些生命中美好的事情 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 48. 試著忽略或避開難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 49. 與其它有類似遭遇的人做比較 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 50. 試著往好處想 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 51. 責怪自己落入這樣的情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 52. 喜歡獨自解決難題 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 53. 服用藥物以減輕緊張 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 54. 試著看 "這個情況" 的光明面 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 55. 告訴自己這個難題沒什麼大不了的 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 56. 避開與人相處 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 57. 試著改進自己，使自己能更好的處理這個情況 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 58. 希望難題會消失 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 59. 倚靠別人幫忙解決 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 60. 告訴自己只不過是運氣不好而已 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |

# Appendix C

## Backtranslations of the Chinese version of the Revised Jalowiec Coping Scale

| Revised Jalowiec Coping Scale | Backtranslation A | Backtranslation B |
|---|---|---|
| 1. Worried about the problem | Worry over the difficulty | Worry about the problem |
| 2. Hoped that things would get better | Hoping the situation will become better | Hope things will be getting better |
| 3. Ate or smoke more than usual | Increasing food or cigarette intake | Increase amount of eating or smoking than before |
| 4. Thought out different ways to handle the situation | Think of various methods to handle the situation | Figure out all kinds of methods & ways to deal with the situation |
| 5. Told yourself that things could be much worse | Tell yourself things could be worse | Tell myself the situationcould be worse than now |
| 6. Exercised or did some physical activity | Exercise | Exercise or stretch the muscle |
| 7. Tried to get away from the problem for a while | Try to escape from the problem for a period of time | Try to avoid the problem for a while |
| 8. Get mad and let off steam | Get angry | Give vent to your anger |
| 9. Expected the worst that could happen | Plan for the worst | Prepare for the worst |
| 10. Tried to put the problem out of your mind and think of something else | Try to place the problem in the back burner and think of other things | Try to forget about the problem by thinking of other things |
| 11. Talked the problem over with family or friends | Tell the problem to friends and family | Tell the problem to the family or friends |
| 12. Accepted the situation because very little could be done | Since nothing would help, therefore just accept the situation | Accept the situation because whatever you do is going to be useless |
| 13. Tried to look at the problem objectively and see all sides | Try to see the problem from different angles | Try to look at the problem from different angles objectively |
| 14. Daydreamed about the better life | Fantasize a better life | Dream to live a better life |
| 15. Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor) | Talked to a trained expert (doctor, nurse, pastor, teacher, counselor) | Discuss the problem with experts (eg. doctors nurses, pastor, teacher, counselor) |
| 16. Tried to keep the situation under control | Try to gain control of the situation | Try to control the situation |
| 17. Prayed or put your trust in God | Pray to God for protection | Pray for the Lord to take care of you |
| 18. Tried to get out of the situation | Try to escaped from the problem | Try to get rid of the situation |
| 19. Kept your feelings to your self | Store the feelings inside | Keep the feeling in heart |
| 20. Told yourself that the problem was someone else's fault | Tell yourself the problem is caused by others | Tell yourself the problem was created by other people's fault |

| | | |
|---|---|---|
| 21. Waited to see what would happen | Wait and see what may happen | See what is going to happen |
| 22. Wanted to be alone to think things out | Be alone to think out the problem | Hope to leave yourself alone in order to think |
| 23. Resigned yourself to the situation because things looked hopeless | Let nature take its course because the situation appears hopeless | Believe in fate, because the situation seems to be hopeless |
| 24. Took out your tension on someone else | Venting your frustration and anger on other people | To let your emotion out to the other people |
| 25. Tried to change the situation | Try to change the situation | Try to change the situation |
| 26. Used relaxation techniques | Use physical and mental relaxation techniques for self relaxation | Use the technique of body and mind relaxation to relax yourself |
| 27. Tried to find out more about the problem | Try to understand the problem more | Try to understand more about the problem |
| 28. Slept more than usual | Sleep more than usual | Sleep more than usual |
| 29. Tried to handle things one step at a time | Try to solve the problem methodically | Try to solve the problem step by step |
| 30. Tried to keep your life as normal as possible and not let the problem interfere | Try to prevent the problem from disturbing the normal daily routines in order to live as usual | Try to avoid the interruption of the daily life by problem, in order to let your like as normal as possible |
| 31. Thought about how you had handled other problems in the past | Try to recall problem solving techniques used in the past | Recall how you solve other problems before |
| 32. Told yourself not to worry because everything would work out fine | Tell yourself not to worry and the problem will take care of itself | Tell yourself don't worry, because problems can always be solved |
| 33. Tried to work out a compromise | Try to make compromise to solve the problem | Try to compromise in order to solve the problem |
| 34. Took a drink to make yourself feel better | Drink alcohol to feel better | Drink a little to let you feel better |
| 35. Let time take care of the problem | Let time to take care of the problem | Let time to deal with the problem |
| 36. Tried to distract yourself by doing something that you enjoy | Try to do something you enjoy to soften the focus on the problem | Try to disperse your attention by doing the things you like |
| 37. Told yourself that your could handle anything no matter how hard | Tell yourself "I can deal with any difficulty." | Tell yourself "I can handle the problems, no matter how hard it is." |
| 38. Set up a plan of action | Plan out a course of action | Make a plan to act |
| 39. Tried to keep an sense of humor | Try to keep a sense of humor | Try to keep a sense of humor |
| 40. Put off facing up to the problem | Escape and not face up the problem | Not to face the problem by putting it off |
| 41. Tried to keep your feeling under control | Try to control your emotion | Try to control your emotion |

| | | |
|---|---|---|
| 42. Talked the problem, over with someone who had been in a similar situation | Talk to someone who has been in similar situation | Discuss the problem with those who had the similar experience |
| 43. Practiced in your mind what had to be done | Go through in your mind the process what had to be done | Prepare in mind before hand what you should do |
| 44. Tried to keep busy | Keep yourself busy | Try to keep yourself busy |
| 45. Learned something new in order to deal with the problem | Learn new things to solve the problem | Try to solve the difficulties by learning the new things |
| 46. Did something impulsive or risky that you would not usually do | Do something different from your normal activities, something risky and impulsive | Do some impulsive or risky things that you usually wouldn't do |
| 47. Thought about the good things in your life | Think of the good and beautiful things in life | Think of some nice things in your life |
| 48. Tried to ignore or avoid the problem | Try to escape or ignore the problem | Try to ignore or avoid the problem |
| 49. Compared yourself with other people who were in the same situation | Compare yourself with people who have been in similar situation | Compare yourself to the people who have similar experience |
| 50. Tried to think positively | Try to think positively | Try to think of the positive aspect |
| 51. Blamed yourself for getting into such a situation | Blame yourself for getting into the situation | Blame yourself for being trapped into such a situation |
| 52. Preferred to work things out yourself | Likes to solve the problem by your self | Like to solve the problems by yourself |
| 53. Took medications to reduce tension | Takes medicines to reduce stress | Use medicines to ease the tense |
| 54. Tried to see the good side of the situation | Try to look at the positive side of the situation | Try to look at the positive side of the situation |
| 55. Told yourself that this problem was really not that important | Tell yourself the problem is not a big deal | Tell yourself this problem is not a big deal |
| 56. Avoided being with people | Isolate yourself to prevent contact with others | Avoid to live or contact with the others |
| 57. Tried to improved yourself in some way so you could handle the situation better | Change yourself so you can deal with the problem more effectively | Try to improve yourself in order to deal with the situation better |
| 58. Wished that the problem would go away | Hope the problem will disappear | Hope the problems will disappear |
| 59. Depended on others to help you out | Rely on others' help to solve the problem | Depend on other people's help to solve the problem |
| 60. Told yourself that you were just having some bad luck | Tell yourself it is just bad luck | Tell yourself it is just because of your bad luck |

# Appendix D

## Demographic Data

Please tell me about yourself. Circle the best answer and fill in up the blank spaces. If you have any questions, you may ask the researcher.

Your Age: _____ years

Sex: 1 = Male
2 = Female

Marital Status:
1 = Single
2 = Married
3 = Separated/Divorced for ___ years
4 = Widowed for _ years

Education: # ____ years of education
or specify:
1 = Grade School (6 years) ____years
2 = Junior High (3 years) _____years
3 = Senior High (3 years) _____years
4 = College or University _____years
5 = Graduate School ___years

Years in the United States:
_____Years

Occupation: What kind of work do you presently do, or did you do in the past?

1 = retired, my work before was _____
2 = working part-time, my work is _____
3 = working full-time, my work is _____
4 = I am looking for employment
5 = I am not employed

Country of Origin:

1 = Taiwan, ROC
2 = China
3 = Hong Kong
4 = Singapore
5 = others, please specify _____

Religion:

1 = Buddhism
2 = Catholicism
3 = Christianity
4 = Taoism
5 = others, please specify _____

Language: How comfortable do you feel reading English and Chinese?

English:
0 = not at all
1 = a little
2 = quite a bit
3 = a lot

Chinese:
0 = not at all
1 = a little
2 = quite a bit
3 = a lot

# Appendix E

## Letter to the Participant

Ruey-Shien Chen
Student of Master of Science in Nursing
Oregon Health Sciences University
Department of Mental Health
707 SW Campus Dr., #614
Portland, OR 97201
(503) 223-5390

Dear participant:

According the 1990 census, the Chinese are the largest group of Asian-American in the United States. Chinese immigrants over the age of 60 years are one of the groups about whom we know very little. The purpose of the study is to find out how members of this group cope with stress in their later life. In addition, I hope a valid instrument, which fits Chinese coping styles and helps determine Chinese coping effectiveness, can be developed from the findings. Your participation will contribute to the knowledge of coping styles in Chinese elderly persons.

This is a voluntary, anonymous study. All information is confidential. Your participation in this study involves completing two questionnaires; one is a Chinese version and the other is an English version. You will also be asked for background information. The process may take up to 30 minutes. The results may be used for publication for scientific purposes but your identity will not be disclosed. The benefits for you may include a chance to review your coping methods, and contribution to science and knowledge. There is no risk in this study except it may result in your feeling upset as you reflect on stressful events.

You have the right to discontinue at any time during answering. If you are interested in the results, please let me know. I am willing to share information. If you have any questions, please ask me before you begin to answer the questions. As you answer the questions, please answer what you think the question mean or is asking you. I appreciate your participation.

Ruey-Shien Chen

# Appendix F

## Alpha Reliabilities of the Subscales of the Chinese and the English Versions of the revised Jalowiec Coping Scale

Confrontive Coping Subscale, item number = 10

USE

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .91 | | .80 | |
| Scale Variance | 46.29 | | 26.103 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 4 | .764 | .894 | .553 | .775 |
| 13 | .774 | .896 | .401 | .793 |
| 16 | .848 | .891 | .446 | .788 |
| 25 | .737 | .896 | .445 | .791 |
| 27 | .665 | .901 | .503 | .781 |
| 29 | .718 | .898 | .506 | .781 |
| 33 | .601 | .905 | .462 | .786 |
| 38 | .732 | .897 | .577 | .771 |
| 43 | .485 | .912 | .604 | .778 |
| 45 | .515 | .911 | .376 | .798 |

EFFECTIVENESS

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .91 | | .89 | |
| Scale Variance | 52.21 | | 46.18 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 4 | .447 | .912 | .645 | .880 |
| 13 | .726 | .894 | .596 | .885 |
| 16 | .863 | .884 | .727 | .874 |
| 25 | .788 | .889 | .619 | .882 |
| 27 | .740 | .892 | .620 | .882 |
| 29 | .790 | .890 | .721 | .875 |
| 33 | .609 | .900 | .571 | .885 |
| 38 | .655 | .897 | .741 | .873 |
| 43 | .632 | .900 | .676 | .879 |
| 45 | .493 | .907 | .461 | .894 |

Evasive Coping Subscale, item number = 13

USE

| | | Chinese | | English | |
|---|---|---|---|---|---|
| Alpha | | .82 | | .79 | |
| Scale Variance | | 43.57 | | 42.27 | |
| | | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# | 7 | .543 | .805 | .079 | .797 |
| | 10 | .589 | .801 | .249 | .789 |
| | 14 | .678 | .794 | .585 | .760 |
| | 18 | .574 | .803 | .155 | .798 |
| | 20 | .347 | .821 | .417 | .774 |
| | 21 | .416 | .815 | .650 | .750 |
| | 28 | .380 | .818 | .178 | .797 |
| | 35 | .613 | .799 | .620 | .754 |
| | 40 | .430 | .815 | .229 | .793 |
| | 48 | .245 | .827 | .720 | .473 |
| | 55 | .522 | .808 | .680 | .747 |
| | 56 | .220 | .829 | .447 | .771 |
| | 58 | .507 | .808 | .469 | .768 |

EFFECTIVENESS

| | | Chinese | | English | |
|---|---|---|---|---|---|
| Alpha | | .81 | | .71 | |
| Scale Variance | | 32.69 | | 29.69 | |
| | | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# | 7 | .611 | .783 | .277 | .704 |
| | 10 | .615 | .782 | .290 | .704 |
| | 14 | .604 | .788 | .531 | .675 |
| | 18 | .512 | .793 | .221 | .713 |
| | 20 | .275 | .811 | .270 | .707 |
| | 21 | .618 | .783 | .435 | .683 |
| | 28 | .322 | .807 | .288 | .703 |
| | 35 | .392 | .804 | .567 | .664 |
| | 40 | .362 | .806 | .015 | .740 |
| | 48 | .242 | .812 | .359 | .695 |
| | 55 | .404 | .803 | .473 | .676 |
| | 56 | .211 | .817 | .256 | .706 |
| | 58 | .610 | .785 | .469 | .678 |

Optimistic Coping Subscale, item number = 9

USE

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .79 | | .75 | |
| Scale Variance | 23.77 | | 22.69 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 2 | .520 | .759 | .360 | .735 |
| 5 | .324 | .790 | .153 | .775 |
| 30 | .547 | .757 | .551 | .709 |
| 32 | .647 | .742 | .530 | .703 |
| 39 | .054 | .821 | .321 | .741 |
| 47 | .523 | .758 | .550 | .699 |
| 49 | .697 | .728 | .528 | .710 |
| 50 | .584 | .754 | .604 | .707 |
| 54 | .512 | .763 | .452 | .718 |

EFFECTIVENESS

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .82 | | .77 | |
| Scale Variance | 27.98 | | 26.53 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 2 | .330 | .827 | .157 | .783 |
| 5 | .500 | .805 | .275 | .771 |
| 30 | .460 | .809 | .679 | .708 |
| 32 | .712 | .779 | .358 | .758 |
| 39 | .155 | .842 | .397 | .754 |
| 47 | .518 | .802 | .392 | .754 |
| 49 | .682 | .779 | .522 | .733 |
| 50 | .712 | .778 | .672 | .710 |
| 54 | .719 | .783 | .690 | .716 |

Fatalistic Coping Subscale, item number = 4

USE

| | | Chinese | | English | |
|---|---|---|---|---|---|
| Alpha | | .71 | | .45 | |
| Scale Variance | | 9.46 | | 5.78 | |
| | | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# | 9 | .435 | .692 | .094 | .543 |
| | 12 | .512 | .643 | .267 | .375 |
| | 23 | .442 | .684 | .370 | .283 |
| | 60 | .622 | .572 | .330 | .305 |

EFFECTIVENESS

| | | Chinese | | English | |
|---|---|---|---|---|---|
| Alpha | | .76 | | .50 | |
| Scale Variance | | 7.02 | | 6.00 | |
| | | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# | 9 | .469 | .762 | .313 | .417 |
| | 12 | .651 | .648 | .305 | .426 |
| | 23 | .423 | .765 | .428 | .316 |
| | 60 | .719 | .607 | .153 | .537 |

Emotive Coping Subscale, item number = 5

USE

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .57 | | .24 | |
| Scale Variance | 7057 | | 4.51 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 1 | .252 | .577 | -.026 | .344 |
| 8 | .620 | .359 | .296 | .001 |
| 24 | .401 | .496 | .450 | -.173 |
| 46 | .034 | .665 | -.153 | .392 |
| 51 | .477 | .421 | .063 | .248 |

EFFECTIVENESS

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .43 | | .35 | |
| Scale Variance | 3.42 | | 3.15 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 1 | .260 | .352 | .054 | .431 |
| 8 | .270 | .362 | .350 | .186 |
| 24 | .329 | .391 | -.159 | .516 |
| 46 | -.001 | .583 | -.159 | .516 |
| 51 | .496 | .106 | .270 | .193 |

Palliative Coping Subscale, item number = 7

USE

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .58 | | .66 | |
| Scale Variance | 11.01 | | 15.03 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 3 | .082 | .602 | .029 | .691 |
| 6 | .693 | .318 | .703 | .474 |
| 26 | .506 | .454 | .448 | .592 |
| 34 | .150 | .584 | .263 | .646 |
| 36 | .493 | .481 | .240 | .657 |
| 44 | .479 | .460 | .719 | .489 |
| 53 | -.316 | .700 | .094 | .675 |

EFFECTIVENESS

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .66 | | .67 | |
| Scale Variance | 11.09 | | 12.96 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 3 | .228 | .663 | .262 | .678 |
| 6 | .622 | .530 | .749 | .481 |
| 26 | .521 | .574 | .553 | .576 |
| 34 | .078 | .679 | .018 | .700 |
| 36 | .535 | .580 | .265 | .674 |
| 44 | .596 | .542 | .638 | .542 |
| 53 | -.065 | .713 | .167 | .680 |

Supportant Coping Subscale, item number = 5

USE

| | | Chinese | | English | |
|---|---|---|---|---|---|
| Alpha | | .70 | | .68 | |
| Scale Variance | | 13.87 | | 13.20 | |
| | | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# | 11 | .459 | .640 | .485 | .617 |
| | 15 | .471 | .649 | .507 | .603 |
| | 17 | .527 | .627 | .461 | .634 |
| | 42 | .480 | .645 | .511 | .609 |
| | 59 | .351 | .697 | .264 | .699 |

EFFECTIVENESS

| | | Chinese | | English | |
|---|---|---|---|---|---|
| Alpha | | .62 | | .54 | |
| Scale Variance | | 11.37 | | 9.18 | |
| | | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# | 11 | .224 | .639 | .274 | .507 |
| | 15 | .415 | .546 | .371 | .449 |
| | 17 | .377 | .578 | .296 | .516 |
| | 42 | .547 | .473 | .443 | .416 |
| | 59 | .395 | .581 | .202 | .540 |

Self-Reliant Coping Subscale, item number = 7

USE

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .69 | | .58 | |
| Scale Variance | 13.46 | | 11.53 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 19 | .141 | .724 | .085 | .627 |
| 22 | .294 | .686 | .228 | .572 |
| 31 | .344 | .666 | .424 | .494 |
| 37 | .549 | .604 | .456 | .483 |
| 41 | .689 | .602 | .162 | .589 |
| 52 | .451 | .639 | .464 | .496 |
| 57 | .481 | .632 | .355 | .531 |

EFFECTIVENESS

| | Chinese | | English | |
|---|---|---|---|---|
| Alpha | .76 | | .75 | |
| Scale Variance | 17.19 | | 18.07 | |
| | Item-scale correlation | Alpha if item is deleted | Item-scale correlation | Alpha if item is deleted |
| item# 19 | .281 | .769 | .437 | .729 |
| 22 | .439 | .739 | .471 | .721 |
| 31 | .608 | .699 | .498 | .717 |
| 37 | .608 | .699 | .524 | .709 |
| 41 | .597 | .704 | .302 | .755 |
| 52 | .413 | .744 | .572 | .706 |
| 57 | .583 | .711 | .510 | .713 |

# Appendix G

## The Student's t-Test of the Chinese and the English Versions of the Revised Jalowiec Coping Scale for the Effectiveness part

Student's t-Test of the Chinese and the English versions of the rJCS for the "Effectiveness" part

| | Mean | | sd | | | |
|---|---|---|---|---|---|---|
| | Chinese | English | Chinese | English | t | P value |
| confrontiv | 1.50 | 1.65 | .73 | .66 | -2.090 | .05 |
| evasive | .64 | .79 | .42 | .44 | -3.0133 | .00* |
| optimistic | 1.28 | 1.39 | .57 | .58 | -1.588 | .12 |
| fatalistic | .67 | .94 | .67 | .62 | -2.596 | .01* |
| emotive | .36 | .41 | .38 | .36 | -1.000 | .33 |
| palliative | .74 | .73 | .48 | .52 | .992 | .74 |
| supportant | .99 | 1.02 | .68 | .62 | -.528 | .60 |
| self-reliant | 1.41 | 1.42 | .60 | .62 | -.075 | .94 |
| total | .99 | 1.09 | .39 | .39 | -2.519 | .02 |

* $p \leq .01$, two-tailed.

ABSTRACT

TITLE: COPING AMONG OLDER CHINESE IMMIGRANTS AS MEASURED BY CHINESE AND ENGLISH VERSIONS OF THE REVISED JALOWIEC COPING SCALE

AUTHOR: RUEY-SHIEN CHEN

APPROVED: [redacted]
Beverly Hoeffer, R.N., D.N.Sc., Professor, Thesis Advisor

The purpose of this correlational descriptive study was to develop a Chinese version of the revised Jalowiec Coping Scale (rJCS) and to test its reliability and validity with a convenient sample of older Chinese immigrants. The coping theory developed by Lazarus and Folkman was chosen as conceptual framework since it served as the underpinning for the rJCS. The sample consisted of 31 bilingual Chinese older adults (mean age = 68.83) living in the Pacific Northwest. Findings suggested that four of eight subscales of the Chinese rJCS are highly equivalent to their English counterparts. These four subscales are confrontive, evasive, palliative, and supportant. Additionally, two subscales, optimistic and self-reliant, are moderately equivalent and could be substituted for their English counterpart. However, the fatalistic and the emotive subscales are less equivalent and require further refinement before one could substitute them with confidence. Overall, the total scale is acceptable according to the preset internal consistency criterion established by Jalowiec. The Chinese version had equivalent or higher internal consistency reliabilities and inter-item reliabilities than the English version, with the exception of the palliative coping subscale. This suggests that these translated scales better

expressed the feelings and values of the Chinese older adults better than did the English versions of the scales.

This study examined coping among a specific culture of older immigrants and has furthered nursing science in its understanding. A coping profile of elderly Chinese immigrants was developed. The most common coping styles used by this older Chinese immigrant used were the confrontive, optimistic, and self-reliant coping styles. This profile may be helpful to nurses and other health professionals in understanding coping styles of Chinese speaking clients encountered in clinical situations. The major limitation was that results from a highly educated sample may not be generalizable to all Chinese older adult immigrants. Another purpose of this study was to develop a translation of a standardized instrument for use with a different ethnic group.

Future study direction is suggested. Changes may need to be made in the fatalistic and the emotive subscales to enhance the instrument validity and reliability. Even though some changes are necessary before further study and clinical usage of the Chinese version of the rJCS, this instrument demonstrated sufficient equivalence overall with the English version of the revised Jalowiec Coping Scale.