ANGER SUPPRESSION AND DEPRESSIVE SYMPTOMS AMONG CHINESE WOMEN IN THE UNITED STATES

A Dissertation

by

SYLVIA WEN-HSIN CHEN

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2008

Major Subject: Counseling Psychology

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ABSTRACT

Anger Suppression and Depressive Symptoms among

Chinese Women in the United States. (December 2008)

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Chair of Advisory Committee: Dr. Michael Duffy

This study was designed to remedy the current lack of information on the causes of depression among Chinese women in the United States. It is based on an integrated understanding of depression, anger, female gender socialization, acculturation processes, and Chinese cultural values. More specifically, this study aims to investigate the depressive symptoms in this population using a psychoanalytic conceptualization of depression as anger "turn-inward."

The researcher hypothesized that after controlling for the effects of female gender role identification and acculturation level, anger suppression has a direct positive effect on depressive symptoms. It was also hypothesized that female gender role identification has a direct positive effect on depressive symptoms. Statistically significant strong positive relationships were found for both relationships. Results also suggested that acculturation level has a direct negative effect on depressive symptoms. However, neither the Chinese culture orientation nor the European American culture orientation was found to have a statistically significant effect on depressive symptoms. It is worth noting that the results of this study revealed that 90% of the variance in

depressive symptoms was explained by variables included the path model in this study. Recommendations for future research and clinical practice are also discussed.

ACKNOWLEDGEMENTS

Many thanks go to my dissertation chair, Dr. Michael Duffy, and committee members, Dr. Ludy Benjamin, Jr., Dr. Oi-Man Kwok, and Dr. Jun-chih Gisela Lin, for their continuing support and guidance throughout this project. Especially, I would like to thank Dr. Michael Duffy for his wisdom and ongoing mentorship, and his willingness to step in for the chairperson responsibility. I would also like to thank Dr. Gisela Lin for her active involvement in both my professional and personal growth, and for looking for ways to support me throughout the years. In addition, a special thank you to Dr. Donna Davenport for her ongoing encouragement and guidance, emotional support and belief in my abilities. I especially appreciate her passion for clinical work and her support of not only my development as a psychologist, but my growth toward becoming a fuller person.

I can not overstate the importance of the valuable friendships I have been fortunate to establish along the way, especially those of Tori Olds, Erin Sandoval, Sarah Porter, and Jason Yu, who have graciously taken on the roles of proofreaders, study partners, research assistants, social secretaries and cheerleaders. Also, the wonderful staff and my fellow interns at the University of Texas Counseling and Mental Health Center have provided me with tremendous support in the past year as I navigated through internship responsibilities and dissertation research. I would not have been able to finish this project without all your help and support!

I would also like to express my deepest gratitude to my family, who has been there for me every step of the way. Their encouragement and support gave me the

courage to pursue my dreams, and their love and faith in my abilities helped me get through many difficult moments throughout graduate school. Finally, I want to acknowledge every Chinese woman who participated in my dissertation research with a heartfelt "thank you."

TABLE OF CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vii
LIST OF FIGURES	ix
LIST OF TABLES	x
CHAPTER	
I INTRODUCTION	1
Chinese Women and Depressive Symptoms	2
Anger Suppression and Depressive Symptoms	4
Purpose of the Study	5
Hypotheses	7
II REVIEW OF THE LITERATURE	8
Depression	8
Women and Depression	9
Depression among Chinese	11
The Effect of Acculturation on Depression	12
Anger Suppression	16
The Role of Anger in the Psychoanalytic Conceptualization of Depression	17
Anger Suppression and Traditional Chinese Culture	21
Women and Anger Suppression	22
Summary of Literature and Contribution of the Study	26
III METHODOLOGY	28
Participants and Procedures	28
Instrumentation	30
Demographic Information	30
Female Gender Role Identification	30

CHAPTER Page

Depressive Symptoms 32
Acculturation Level 33
Anger Suppression 34

IV RESULTS 36

Preliminary Data Analyses 36
Descriptive Analyses of Demographics 36
Descriptive Analyses of Model Variables 37
Testing of Assumptions 37
Anger Suppression 37
Evaluation of Proposed Hypotheses 42
Hypothesis 1: Anger Suppression and Depressive Symptoms 43
Hypothesis 2: Female Gender Role Identification and Depressive Symptoms 43
Hypothesis 3: Acculturation Level and Depressive Symptoms 44

V SUMMARY AND DISCUSSION 45

Hypothesis 1 45
Hypothesis 2 49
Hypothesis 3 50
Hypotheses 3a and 3b 51
Limitations of Study 55
Implications for Future Research 56
Clinical Implications 59

REFERENCES 61

APPENDIX A 74

APPENDIX B 75

APPENDIX C 76

APPENDIX D 77

APPENDIX E 78

APPENDIX F 80

Page

VITA 82

LIST OF FIGURES

FIGURE Page

1 Proposed Path Model 6

2 Standardized Solution of Proposed Path Model.. 46

3 Unstandardized Solution of Proposed Path Model 47

4 Standardized Solution of Modified Path Model.. 53

5 Unstandardized Solution of Modified Path Model 54

LIST OF TABLES

TABLE		Page
1	Descriptives for Variables	38
2	Internal Consistencies of Each Variable	39
3	Inter-item Correlation Matrix for European American Orientation	40
4	Correlations between Variables	41
5	Covariance Matrix	48
6	Variances	48

CHAPTER I

INTRODUCTION

Asian Americans have been described as one of the fastest growing segments of the United States population. The growth rate of Asian Americans between 2003 and 2004 was more than three times that of the total population (Bernstein, 2005). According to the 2000 U. S. Census, Chinese comprised the largest Asian group in the United States (Tolbert, 2002), including people who originally came from mainland China, Hong Kong, and Taiwan. The continued growth of this population and increase of Chinese immigration will greatly increase the likelihood of encountering these individuals within the realm of mental health services.

Specifically, the emotional welfare of Chinese American women has become a pressing issue for mental health professionals (Dai, Zhang, Yamamoto, Ao, Belin, Cheung, & Hifumi, 1999; Ying, 1990). The urgency is linked to the finding that suicide rates among Asian American women are 2.5 to 3 times higher than those of their Caucasian counterparts (Vongs, 2003). Especially, first generation Chinese American women have the highest suicide rate among all racial and ethnic groups in the United States, with 20 suicide deaths per 100,000 (Vongs, 2003). In spite of the urgency of the problem, there are very few published studies which shed light on this phenomenon.

Research studies have suggested that level of depression is a reliable predictor for suicidal ideation, and this prediction is more accurate in women than in men

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This dissertation follows the style of *Journal of Counseling Psychology*.

(Stephenson, Pena-Shaff, & Quirk, 2006). Therefore, issues relating to depression are of considerable interest to clinicians and mental health professionals in their attempts to understand the interpersonal and intrapersonal dynamics of depression in their clients (Clay, Anderson, & Dixon, 1993). In order to be helpful to the increasing Chinese American population, it is critical to examine the causes of depressive symptoms among Chinese women in the United States.

The Global Burden of Disease study conducted by the World Health Organization (WHO) (Murray & Lopez, 1996) concluded that depression is one of the most debilitating health concerns in the world (Takeuchi, Chung, Lin, Shen, Kurasaki, Chun, & Sue, 1998). The WHO researchers further predicted that by the year 2020 depression will rank second (after heart disease) and will account for 15% of the health problems in the world (Takeuchi et al., 1998). There have been studies investigating depressive symptoms in Asian American population (e.g., Bui & Takeuchi, 1992; Kuo, 1984; Ying, 1988). However, many of these studies considered Asian Americans as a homogenous group and this assumption largely ignores the diversity within the Asian American population. To truly understand the social and cultural influences on the psychological wellness of an ethnic minority group, researchers have stated that studies should be conducted using differentiated samples of specific ethnic groups (Takeuchi et al., 1998).

Chinese Women and Depressive Symptoms

The Chinese were the first Asian ethnic group to immigrate to the United States in large numbers, starting as early as the 1850s. In recent years, individuals of Chinese

descent have continued to immigrate to the United States to seek better standards of living and better education and career opportunities. The challenge of incorporating two cultural value systems that are quite different from one another and issues related to acculturative stress may create stressful experiences for Chinese individuals residing in the United States. In addition, women have been found to be more vulnerable to depression and Chinese women are no exception. The majority of previous studies investigating depressive symptoms among the Chinese population in the United States focused on the symptomatology and prevalence of depression (Bui & Takeuchi, 1992; Kuo, 1984; Ying, 1988). Some researchers investigated the impact of the immigration experience and Chinese Americans' acculturation level and found conflicting results (e.g., Franks and Faux, 1990; Kuo & Tsai, 1986; Lalinec-Michaud, 1988; Yu & Harburg, 1980). A review of literature revealed that there has not been a consensus as to the causes of depression in this population, and a literature review did not reveal a strong theoretical model that can be used to explain the severity of symptoms that are often seen in clinical settings. Therefore, this study attempted to explore causes of depression among Chinese women in the United States by examining the applicability of Freud's (1917/1994) conceptualization of "depression as anger turned inward" to this population. According to Freud, the root of depression can be understood as stemming from anger that is directed toward the self. If a person is afraid of the power or impact of his or her expression of anger and therefore unconsciously chooses to turn that anger into self attacks, depression will result. A psychoanalytic understanding of depression in Chinese

women would therefore point to the possibility of misdirected anger as a causal ingredient of depressive symptoms.

Anger Suppression and Depressive Symptoms

Anger is a universal experience, but the expression of anger has long been identified as highly related to one's socialization experience (Tanaka-Matsumi, 1995). The regulation and communication of anger both have strong cultural implications. Lerner (1985) further pointed out that when individuals fail to express anger in a culturally appropriate way they may be condemned for such behavior. Some immigrants, minority groups and women also often conform to norms that encourage the suppression of strong negative emotional expressions when interacting with those perceived as having higher social status (Carmony & DiGiuseppe, 2003). Both Miller and Surrey (1997) and Lerner (1985) pointed out that women's anger is often considered a "taboo" topic in the society because outward expression of anger is inconsistent with gender expectations placed upon women. Because they are not expected to express anger directly, women often hold back such emotions which over time develop into a variety of emotional and physical health problems (Thomas, 1993).

For Chinese women, the influence of gender roles related to anger suppression is magnified by traditional Chinese culture's emphasis on retraining strong emotions. Chinese society emphasizes interdependence, harmony in family and social relationships and filial piety. Chinese children learn at a young age that in order to maintain interpersonal harmony, strong and negative emotions are not to be openly expressed (Chen & Davenport, 2005). Accordingly, it is reasonable to assume that Chinese women

may have a tendency to suppress their anger expression, as a result of both female socialization and adherence to Chinese cultural norms.

Purpose of the Study

Coping with and managing anger is a critical area in psychotherapy. Exploring the causes for depression among Chinese women is also a pressing issue. This study was designed to remedy the current lack of information on the causes of depression among Chinese women. It is based on an integrated understanding of depression, anger, female gender socialization, acculturation process, and Chinese cultural values. The design of this study is to investigate the depressive symptoms in Chinese women in the United States using a psychoanalytic conceptualization. The main relationship being examined is the effect of anger suppression on depressive symptoms while holding two other important variables—female gender role identification and acculturation level—constant.

The following diagram is a conceptual model illustrating the proposed relationships among the variables (Figure 1):

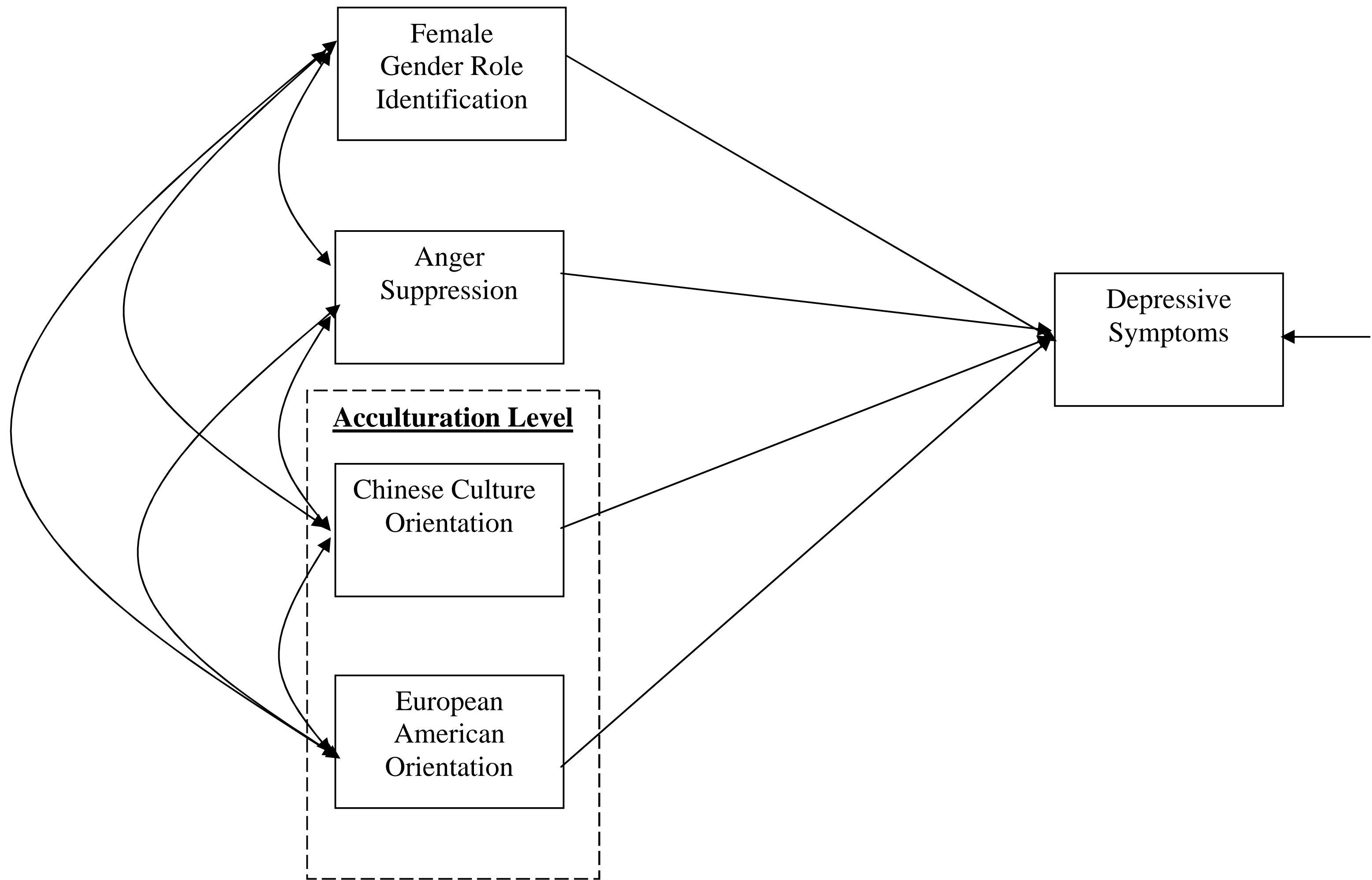

Figure 1. Proposed path model.

Hypotheses

Based on previous literature and theoretical conceptualization, this study will examine 3 hypotheses. The relationships between variables are hypothesized as follows:

1. After controlling for the effects of female gender role identification and acculturation level, anger suppression has a direct positive effect on depressive symptoms among Chinese women in the US such that higher levels of anger suppression will predict higher levels of depressive symptoms in this population.
2. Female gender role identification has a direct positive effect on depressive symptoms among Chinese women in the US such that higher levels of female gender role identification will predict higher levels of depressive symptoms in this population.
3. Acculturation level has a direct negative effect on depressive symptoms among Chinese women in the US.
    a. Chinese culture orientation has a direct negative effect on depressive symptoms among Chinese women in the US such that higher levels of Chinese culture orientation will predict lower levels of depressive symptoms in this population.
    b. European American culture orientation has a direct negative effect on depressive symptoms among Chinese women in the US such that higher levels of European American culture orientation will predict lower levels of depressive symptoms in this population.

CHAPTER II

REVIEW OF THE LITERATURE

This section will first review the concept of depression in women and in Chinese individuals. The effect of acculturation on depressive symptoms will also be reviewed. The next focus of this section will be the concept of anger and anger suppression as related to gender role identification and traditional Chinese culture. Finally, the psychoanalytic conceptualization of depression will be discussed to illustrate the relationship between anger suppression and depressive symptoms.

Depression

Depression is a mood disorder that can be seriously incapacitating and often life-treatening (Droppleman & Wilt, 1993). The current understanding among psychologists about depression is that it is a psychiatric syndrome characterized by specific affective, cognitive behavioral and somatic symptoms. Individuals suffering from depression may experience sadness and lethargy. Other symptoms include low self-esteem, difficulty concentrating, and physical presentations such as weight loss or gain, insomnia or hypersomnia, slowed physical movement or increased agitation. Depression is one of the leading causes of global disability (Winkler et al., 2005) with life-time prevalence of up to 17.1% in the general population and death due to suicides of up to 15%. It has also been found to have serious impact on individuals across ethnic groups and nationality (Dai et al., 1999; Kuo, 1984). To understand the specific impact of depression on Chinese women in the United States, studies on prevalence of depression among women and Chinese individuals will be discussed in the following sections.

Women and Depression

Research studies, surveys and clinical reports consistently show that women are more likely to experience depression than men (Kessler, McGonagle, Swartz, & Blazer, 1993; Newman, Gray, & Fuqua, 1999; Nolen-Hoeksema, 1987; Strickland, 1992; Weissman & Klerman, 1985; Winkler et al., 2005). The American Psychological Association's National Task Force on Women and Depression (McGrath, Keita, Strickland, & Russo, 1990) reported significant gender differences for unipolar depression and dysthymia, with a larger difference for less severe depressive symptomatology (Scott, 2002). A report released by the World Health Organization (Khandelwal, Chowdhury, Regmi, Mendis, & Kittirattanapaiboon, 2001) also indicated that 20 to 25% of the women can be expected to develop clinical depression during their lifetime. Studies on prevalence of depression have further reported that women are twice as likely as men to suffer from depression (Kessler et al., 1993; Nolen-Hoeksema, 1987; Winkler et al., 2005; Weissman & Klerman, 1985).

McGrath et al. (1990) concluded in the APA National Task Force report that this gender difference may be due to biological, psychological and gender socialization factors. It has been suggested that there is significant overlap between many of the traditional symptoms of depression and the stereotypical female gender role, and researchers further noted that this correspondence between gender role characteristics and diagnostic criteria for depression may have contributed to the high prevalence rate among women (Landrine, 1988; Rothblum, 1982).

One other theory suggests that women's social status and family roles are important factors contributing to this higher vulnerability to depression. More specifically, women are socialized at a young age to value personality traits such as "caring" and "nurturing," and to develop a tendency to focus on others' needs. They learn that their needs are not important, and that they are expected to be dependent on others. The results of the socialization process may contribute to a sense of helplessness, and ultimately leads to more vulnerability to depression (Bromberger & Matthews, 1996; Weissman & Klerman, 1977; Rothblum, 1982).

The relationship between gender and depressive symptoms has been investigated in several studies. In a study conducted by Newman, Gray, and Fuqua (1999), authors found that women scored significantly higher than men on the Beck Depression Inventory. Other researchers also found that rates of depression are much higher in women than in men (Nolen-Hoeksema, 1987; Weissman & Klerman, 1977, 1985). However, others authors have pointed out that it is rather gender identification, rather than gender itself that contributes to this difference. For example, Tinsley and colleagues (Tinsley, Sullivan-Guest, & McGuire, 1984) found that depression scores were positively correlated with scores indicating participants' degree of femininity. Therefore, they concluded that the degree of acceptance of the traditional feminine role is positively related to depressive symptoms in middle-aged women. Results in a study conducted by Bromberger and Matthews (1996) found that women with traits associated with female gender roles are at higher risk for depressive symptoms, further supporting the notion

that a woman's adherence to the traits of feminine gender role is one of the crucial determining factors for her vulnerability to depression.

Depression among Chinese

Alongside studies that focused on gender differences, another well-researched topic regarding depression is comparison across different ethnic groups. Most of these studies have been focused on either the cultural expression of depression or the prevalence of depression in these populations. For example, contrary to the "Model Minority Stereotype" which describes Asian Americans as a well-adjusted and problem-free group of individuals, a number of studies (e.g., Bui & Takeuchi, 1992; Kuo, 1984; Ying, 1988) revealed that the prevalence of depression was higher in Chinese and Asian Americans than the general US population. Using the Center for Epidemiology Studies-Depression Scale, Kuo (1984) found that Chinese, Japanese, Filipino, and Korean Americans on average reported slightly more depressive symptoms than did their Caucasian counterparts. In 1988, Ying replicated Kuo's study and found Chinese American participants in the study to have significantly more depressive symptoms than those in Kuo's 1984 study. More recently, a study conducted with Chinese Americans in the greater Boston area also showed the prevalence rate of depression among this group to be similar to that of other ethnic groups (Hsu, Wan, Adler, Rand, Choi, & Tsang, 2005).

Another focus of research studies concerning depression within the Chinese population has explored the expression of emotional distress. Studies that were conducted in China showed that there tended to be somatic components such as fatigue,

weight loss and pain in the exhibition of depression (Kleinman, 1982; Tabora & Flaskerud, 1994). According to Kleiman (1982), Chinese individuals believes in a mind-body interaction and neurasthenia is believed to be a culturally acceptable mode of expression for depression that is congruent with Chinese cultural values and appropriate social behavior. Similarly, it was found in Kuo's study (Kuo, 1984) that Chinese Americans seemed to combine the expression of typical depressive symtomatology with what seemed to be somatic complaints.

The Effect of Acculturation on Depression

The acculturation process of immigrant minorities is among one of the most researched topics within the multicultural framework (Chung, Kim, & Abreu, 2004). According to the U. S. Department of Commerce (2002), the majority of Chinese individuals living in the United States are foreign-born immigrants with varying degrees of acculturation (Ying, 1990). For these immigrants, difficulties in adjustment are often associated with various mental illnesses and physical symptoms (Kuo, 1976; Schwartz, 1998). The process of acculturation, during which an immigrant is exposed to the culture of the host society while still maintaining his or her culture of origin, is often described as a stressful process (Schwartz, 1998; Sue & Sue, 1971) and is likely to contribute to psychological concerns such as depression (Takeuchi et al., 2007; Parker, Chan, Tully, & Eisenbruch, 2005). Although the literature regarding the connection between the acculturation experience and physical health among Asian Americans is increasing, relatively less is known about these immigrants' psychological wellness (Takeuchi et al., 2007). The immigration experience has been linked to depressive symptoms, but the

findings of empirical studies on the effect of acculturation on depression have been mixed. Some studies suggested that acculturation level has a negative association with psychological distress (Yu & Harburg, 1980), whereas others showed that although new immigrants may undergo stressful times as they adjust to a new society, their mental health may be better than more acculturated immigrants and native-born residents (Takeuchi, Chun, Gong, & Shen, 2002).

According to Franks and Faux (1990), there is a positive relationship between acculturation level and depressive symptoms, such that the longer the Chinese immigrants stay in the United States, the higher the rates of depression. Takeuchi et al. (2002) also found that increases in acculturation level were associated with elevated levels of depressive symptoms. More recently, a study investigating immigration-related factors and mental disorders among Asian Americans (Takeuchi et al, 2007) provided support for the possibility that compared to U.S. born Asian American women, those born in another country may be less vulnerable to depression and other psychiatric problems. These findings are consistent with the notion that immigrants, who are relatively less acculturated, seem to be more emotionally healthy than their U.S.-born counterparts (Rumbaut & Weeks, 1996).

On the other hand, other researchers found a negative relationship between acculturation level and depressive symptoms. It was believed that the negative aspects of the acculturation process may be related to increased psychopathology among immigrants (Kuo & Tsai, 1986; Lalinec-Michaud, 1988). Yu and Harburg (1980) conducted a study with 510 Chinese Americans and found that acculturation level

significantly affected the number of psychological stress symptoms reported by these participants such that the amount of reported distress increased with decreased level of acculturation. Case studies presented by Lalinec-Michaud (1988) also illustrated the influence of culture conflict and difficulties as well as demands for adaptation to a different value system can increase immigrants' vulnerability to depression. Similar results were reported by Sue and Zane (1985). Their research reported adjustment difficulties for a sample of recently immigrated Chinese students and provided evidence that these students were less socioemotionally adjusted than other Chinese students who were at a higher acculturation level.

Two hypotheses have been proposed to explain these inconsistent results. One was referred to as the "immigrant adjustment hypothesis," which predicts that due to exposure to different culture values, English proficiency problems, minority status, discrimination, reduction in available social support, and other stressful situations associated with immigrating to a new country, immigrants will suffer from more psychological disorders than more acculturated individuals from the same ethnic background (Takeuchi et al., 2002). The second explanation, often referred to as "immigrant paradox" by sociologists (Rumbaut & Weeks, 1996), proposes that despite the acculturative stress immigrants appear to be psychologically healthier than more acculturated U.S. born residents (Takeuchi, et al., 2002). It was suggested that cultural values and lifestyles of these immigrants' culture of origin protect them from the potentially harmful impact of the new environment (Shuval, 1993; Rumbaut & Weeks, 1996). These traditional values also provide comfort for these individuals while they go

through a series of stressful events and challenges typically associated with adjusting to a different culture.

To simultaneously investigate these two hypotheses, the Asian American Multidimensional Acculturation Scale (AAMAS; Chung et al., 2004) will be utilized in this study. The AAMAS was constructed based on a multidimensional conceptualization of acculturation, which stated that for individuals influenced by more than one cultures, his or her adherence to a specific culture can be represented by different dimensions of acculturation that are independent of one another (Chung, et al., 2004). For example, one can have high levels of acculturation on both the dimension of their own culture of origin and the dimension of the host culture. Historically, acculturation had been viewed as the process by which values, attitudes, and behaviors of an individual of one culture changes over time as the result of being in contact with a different culture, which implies that the adaptation to the dominant host culture would inevitably decrease the individual's adherence to his or her heritage culture (Abe-Kim, Okazaki & Goto, 2001). This conceptualization has been challenged in recent years as more information about the process of acculturation has been revealed through clinical practice and empirical research. The main criticism for this unidimensional conceptualization of acculturation is that it denies the possibility of true biculturalism (Chung et al., 2004) where individuals can maintain the attitudes, values, and behaviors of his or her own culture of origin while adapting to the mainstream culture at the same time. The AAMAS was the result of researchers' effort to demonstrate that not only is identification with both heritage culture and host culture possible, the processes by which one maintains his or her culture

of origin and adapts to the host culture are independent, and can happen at different rates (Kim et al., 2001; Chung et al., 2004). Using the two dimensions of the AAMAS, this study was to assess a Chinese woman's adherence to both Chinese culture and European American culture independently and simultaneously. Based on the "immigrant adjustment hypothesis," one's level of European American orientation (adherence to the host culture) is predicted to have a direct negative effect on the number of reported depressive symptoms; while according to the "immigrant paradox," one's level of Chinese culture orientation (adherence to one's culture of origin) is predicted to have a direct negative effect on level of depressive symptoms.

Anger Suppression

Anger is an emotion that is familiar to individuals across the world, and it has remained a complex and controversial emotion (Thomas, 1993). Generally, anger is defined as an emotional state that ranges from minor irritation and annoyance to fury and rage that may be triggered by a real or imagined injury (Kopper & Epperson, 1996; Spielberger, 1996). The expression of anger has been continuously linked to physical health and emotional wellness. For example, chronically experienced, suppressed or aggressively expressed forms of anger have been associated with hypertension (Miller, Dopp, Myers, Stevens, & Fahey, 1999), heart disease (Harburg, Gleiberman, Russell, & Cooper, 1991; Sher, 1998; Schneider, 1986; Siegman, Townsend, Blumenthal, Sorkin, & Civelek, 1998), lowered immunity (Sher, 1998), and headaches (Venable, Carlson, & Wilson, 2001). In addition to physical problems, suppressed anger has also been recognized as having psychological consequences. It was long been argued that

suppressed anger is a predictor of depression. The following section will explore the relationship between anger suppression and depression based on a theoretical understanding as well as a review of previous empirical studies.

The Role of Anger in the Psychoanalytic Conceptualization of Depression

Depression has been one of the most prominent affective experiences that is believed to be associated with anger (Newman, Fuqua, Gray, & Simpson, 2006). Problems resulting from maladaptive expression of anger are one of the most common sources of psychological distress (Cheng, Mallinckrodt & Wu, 2005; Deffenbacher & Stark, 1992; Greenberg, 2002). It has been hypothesized by various theorists that anger, especially anger suppression, plays a role in the dynamics of depression. In 1917, Sigmund Freud wrote a book about loss titled *Mourning and Melancholia* (Freud, 1917/1994) which was among the first to propose this connection. According to Freud, there are many similarities between the symptoms of melancholia and grief, such as feelings of sadness and loneliness, lack of motivation, and lethargy. The difference, as Freud pointed out, is that the "mourner" has a reason to be so unhappy, having really lost someone, whereas the loss experienced by the melancholy person is likely to be in the mind (Freud, 1917/1914). Freud also suggested that as a result of the loss of a significant other, individuals may experience guilt and the need for self-punishment, which led to decreased self-esteem and even self-directed violence (Freud, 1917/1994). Ensuing psychoanalytic theorists later conceptualized depression as anger turned inward or against oneself. It was believed that those who direct their anger inward tend to deny thoughts and reactions relating to the anger-provoking situation, and the feelings of

anger themselves may be pushed away, or even denied (Clay et al., 1993; Spielberger, Krasner, & Solomon, 1988).

This psychoanalytic formulation has prevailed for many years and has been the research interest of many empirical studies. Many of these studies have found indications that suppression of anger leads to depression and has a negative effect on mental health in general (e.g., Biaggio & Godwin, 1987; Bromberger & Matthews, 1996; Clay et al.,1993; Cox, Stabb & Bruckner, 1999; Sperberg & Stabb, 1998; Thomas, 1993).

Biaggio and Godwin (1987) investigated the effect of anger and hostility have on level of depression using 112 university students. Their results suggested that there is a more intense experience of hostility, particularly inwardly directed hostility, among depressed than non-depressed individuals. They concluded that depressed individuals may experience high inwardly directed hostility which takes the form of guilt and self-criticism (Biaggio & Godwin, 1987). In 1989, Riley, Treiber, and Woods found within the depressed group a positive relationship between severity of depression and levels of anger and hostility. Results suggested that the suppression of anger and the inhibition of its expression led to turning anger against oneself, thus producing low self-esteem and depression (Riley, Treiber & Woods, 1989). Clay, Anderson and Dixon (1993) examined the relationship between anger expression and stressful life events as predictors of depression among college students and their findings provided support for the depression as “anger turned inward” hypothesis by demonstrating a significant relationship between inward-directed anger and the experience of depression above and beyond the effects of

stressful life events (Clay et al., 1993). Droppleman and Wilt (1993) found only a weak relationship between depression and anger suppression when they analyzed the results from 452 women who had been separated into nonclinical, medical, and psychiatric groups, but they noted a stronger relationship existed between these two variables for women in psychotherapy (Droppleman & Wilt, 1993). A 1996 longitudinal study examining a feminine model of vulnerability to depressive symptoms conducted by Bromberger and Matthews further confirmed that middle-aged women who had high levels of suppressed anger also had higher depressive symptom levels at follow-up (Bromberger & Matthews, 1996). Sperberg and Stabb (1998) studied depression in women as related to anger and mutuality in relationships and found that women who suppress anger to a high degree are more likely to be depressed than those women who suppress anger to a lesser degree. Newman, Gray, and Fuqua (1999) compared mean scores on the Beck Depression Inventory and the State-Trait Anger Expression Inventory and found that although men and women did not differ in mean levels of anger suppression, the correlation between inward expression of anger and depressive symptoms was significantly higher for women than for men. The relationship between anger suppression and depression has also been investigated in a sample of headache and migraine sufferers. The results of Venable, Carlson and Wilson's 2001 study showed that anger suppression was significantly correlated with depression across tension-headache and mix-headache groups, which provided support for the possibility that the relationship between depression and anger suppression holds true for non-clinically depressed individuals with headaches (Venable, Carlson, & Wilson, 2001).

In recent years, studies supporting the psychoanalytic conceptualization of depression have continued to emerge. There also have been studies implicating that both inward-directed and outward-directed anger are associated with depressive symptoms. For example, using the State-Trait Anger Expression Inventory, Deffenbacher, Oetting, Lynch and Morris (1996) found that scores on the Beck Depression Inventory were significantly and positively correlated with scores on both the inward-expression and outward-expression scales. Sperberg and Stabb (1998) also found that higher levels of both suppressed and inappropriately expressed anger were related to depressive symptoms. Cheng, Mallinckrodt and Wu (2005) surveyed 559 Taiwanese undergraduate students and found that both anger suppression and anger expression are positively associated with depressive symptoms for Taiwanese young adults. Their finding that anger suppression was significantly associated with depressive symptoms is congruent with studies of Western samples (Cheng et al., 2005). Newman, Fuqua, Gray and Simpson (2006) found in their sample of 139 adults that 38% of the variance in depression is related to the anger scales tested in their study. Their study also generated parallel findings to previous studies regarding the connection between anger and depression. These somewhat incongruent results suggested a need to continue exploring this long-standing hypothesis by developing explanatory models that can further clarify the relationship between inward-directed anger and depressive symptoms and by testing the applicability of this conceptualization with ethnic subgroups.

Anger Suppression and Traditional Chinese Culture

The experience and expression of a universal emotional experience such as anger is believed to be influenced by one's cultural heritage and world view (Sharkin, 1993, 1996). Because the perception of a situation as anger-provoking and the manner in which anger is expressed depend on both the social context and a person's cultural history, it has been suggested that the experience, expression, and control of anger may not be the same in Eastern and Western societies (Tanzer et al., 1996).

The expression of anger may be an unfamiliar concept for some Chinese. Chinese culture is rooted in Confucianism, Taoism, Buddhism and folk religions; as a result of these influences the Chinese society emphasizes interdependence, harmony in family relationships and filial piety (Bond & Hwang, 1986; Chen & Davenport, 2005; Cheng & Page, 1995). Traditional Chinese culture values harmonious interpersonal relationship above all else and it is believed that harmony is maintained by respecting authority figures and those who have higher social status. Because harmony in the family and in interpersonal relationships between friends and colleagues is very important in Chinese culture, to achieve and maintain such harmony, a Chinese person must be able to "tolerate" unpleasant situations without the overt expression of negative emotions such as anger (Tanzer, Sim, & Spielberger, 1996).

Accordingly, Chinese children are taught that strong and negative feelings are not to be openly expressed. Specifically, the negative emotion of anger is thought to be unacceptable (Bond, 1996; Chen & Davenport, 2005; Sue, 1997). Chinese individuals are often bound by the cultural rules that encourage the suppression of emotional

expression when they interact with those perceived as having higher status. Such power differential is likely to lead to detrimental suppressed anger in individuals in low-power situations (Carmony & DiGiuseppe, 2003).

Bond and Hwang (1986) suggested that there is a distinction between emotions experienced and emotions expressed in Chinese culture. They further explained that the Chinese expression of emotions is strongly censured and the expression of anger is generally suppressed and is expressed less often or less directly than in Western cultures. Peacemaking in interpersonal relationships is highly valued in Chinese culture (Bond & Hwang, 1996) and it is important to engage in self-introspection and self-correction when negative feelings are experienced.

Since traditional Chinese culture is based on a hierarchical interpersonal structure in which males are considered to have higher social status than females (Bond, 1996), it can be expected that Chinese women may be particularly vulnerable to anger suppression, and thus have higher level of depression.

Women and Anger Suppression

Historically, the experience and expression of anger has been theorized to be a function of a person's gender (Newman et al., 2006; Sharkin, 1993). Lerner (1985) also pointed out that it is the socialization of gender that influences how one expresses his or her emotions. Collier (1982) believed that most women are taught to hide or suppress anger, or if necessary, to release anger indirectly. Lerner (1985) concurred with Collier's beliefs that socialization and the taboos against women feeling and expressing anger are so powerful that even recognizing anger is not a simple matter.

Clinical and research evidence regarding women's difficulties with anger has suggested that girls are raised in manners that restrict their freedom to express anger. Women have long been discouraged from awareness and expression of anger. Also, women who express anger often receive negative labels such as shrew, bitch and other derogatory epithets (Lerner, 1985). Despite change brought about by the feminist movement, societal prohibitions against female anger are still strong and expressions of women's anger are considered unfeminine and are condemned (Cheng, et al., 2005; Lerner, 1988; Sharkin, 1993). Sometimes even women themselves have adopted beliefs that they have no right or reason to be angry (Miller, 1983). On the contrary, in the socialization of men, anger expression is perceived as more positive and acceptable, and anger tends to be seen as more congruent with the masculine gender role (Cheng et al., 2005; Thomas, 1993).

Miller and Surrey (1997) further suggested that the cultural fear of women's anger was based on women's caretaking responsibilities. That is, because caretakers nurture, they should not get angry. In addition, as part of the caretaking responsibilities women often focus on the needs of others to the extent of neglecting their own. The relationship between this phenomenon and depression was discussed by Droppleman and Wilt (1993), who pointed out that because anger is not a socially sanctioned emotion for women, the experience of this strong emotion may lead to depression or physical illness. It was believed that women inhibit anger because they fear its expression will disrupt important interpersonal relationships (Scott, 2002). Also, due to their supposedly greater difficulty in expressing anger, it has been widely suggested that women are more

likely than men to suppress anger (Kopper & Epperson, 1996), only to have it manifest itself in other forms of negative affective experience (Kopper & Epperson, 1996; Newman et al., 2006; Sharkin, 1996). It has been suggested that anger suppression is an important part of female gender identity and self-esteem development and may be responsible for the higher incidence of depressive symptoms in women than men (Kaplan, 1986; Kopper & Epperson, 1996; Sperberg & Stabb, 1998; Thomas, 1993).

The notion that there are substantial differences between men and women in the experience and expression of anger has been widely discussed in the theoretical literature in counseling and psychology (Newman et al., 1999). However, in regard to empirical studies on gender differences in anger suppression, anger expression and depression the research findings have been mixed (Kopper & Epperson, 1991, 1996; Newman et al., 2006).

Some research studies have found that men and women experience anger in similar ways and express themselves in similar ways (Deffenbacher et al., 1996). However, others have found that although women and men may not differ in ways they experience and express anger, it appears that women respond to anger in a manner that may be different from men, and may suffer different consequences as a response to anger. For example, Newman and colleagues (1999) compared mean scores for both genders on measures of depression and anger and found no gender differences on any of the anger scales. Interestingly, they also examined the relationship of anger internalization to depression and found clear support for the possibility that internalized anger plays a more prominent role in depression among women. They concluded that

even though women and men experience similar level of inward-directed anger, women may be more likely to convert it to depressed symptoms than are men (Newman et al., 1999).

Kopper and Epperson proposed that such results may be explained by gender role socialization. Gender role refers to internalized characteristics culturally regarded as appropriate behavior for males and females (Bem, 1974). It was hypothesized that individuals who endorse more feminine characteristics should report higher levels of suppressed anger and higher levels of anger control. In their 1996 study Kopper and Epperson (1996) confirmed that the differences in expression of anger are not attributed to gender but to gender role identification. In other words, the more masculine a person is, the more likely that person will express anger more directly and openly, whereas the more feminine a person, the more likely that person will suppress his or her anger. Milovchevich, Howells, Drew and Day (2001) investigated sex and gender role differences in anger with an Australian community sample and the results of their study supported the previous notion suggesting that males and females do not differ significantly in their experience or expression of anger. However, gender role identification of participants did significantly affect anger experience and expression. This finding is also consistent with previous work by Kopper (1993) and Kopper and Epperson (1991, 1996). Review of the literature on gender differences regarding the experience and expression of anger seem to suggest that gender role identification is a more appropriate and more sensitive measurement for investigating the emotion of anger and its consequences.

Summary of Literature and Contribution of the Study

This study was undertaken in an effort to gain more information about depression among Chinese women in the United States. More specifically, the purpose of the study was to investigate the relationship between anger suppression and depressive symptoms in this population. Previous research data suggested that the prevalence rate for depression in women is at least twice that of men (Boyd & Weissman, 1981; Krulewitch, 2001; Nolen-Hoeksema, 1987). Attempts to find explanations for these discrepant rates led to examinations of sociological, biological, socialization, and emotional factors.

Anger is a universal emotion and its expression, suppression and control have been linked to both physical and emotional wellness (Cheng et al., 2005; Harburg et al., 1991; Miller et al., 1999; Newman et al., 2006; Sher, 1998; Schneider, 1986; Venable et al., 2001). In addition, it has long been suggested that there is a relationship between inward-directed anger and depression (Bridewell & Chang, 1997; Bromberger & Matthews, 1996; Clay et al., 1993; Droppleman & Wilt, 1993; Jack, 1991; Kellner, Hernandez, & Pathak, 1992; Perl, 1998; Riley et al., 1989). To investigate the relationship between anger and depression in Chinese women, and to test the applicability of conceptualization of depression as “anger turned inward” proposed by Freud (1917/1994), this study investigated the association between the tendency to suppress one’s anger expression and depressive symptoms, and the magnitude of this relationship after taking into consideration the effects of female gender role identification and acculturation level. It is also worth noting that this is the first study that utilized a multidimensional acculturation assessment scale to simultaneously

investigate the “immigrant adjustment” hypothesis (which suggests that lower-acculturated Chinese immigrants may have more psychological problems) and the “immigrant paradox” hypothesis (which suggests that higher-acculturated Chinese Americans may suffer from more psychological problems) regarding immigrant’s psychological wellness.

The treatment of depression is a critical area in psychotherapy. In order to promote effective treatment of depression in Chinese women in the US, clinicians must develop knowledge of cultural norms, display rules, and specific and common antecedents to assess the level of their client’s depressive symptoms. Studies that were conducted in this area have been mostly focused on depressive symptomatology in Chinese American individuals with very few studies examined possible causes of depression. A study that bridges Western conventionalization of emotional disturbance with cultural understanding of the experience and expression of depression would have a significant clinical implication for professionals working with clients from diverse cultural backgrounds. The results of this research may lead to findings central to building a treatment model for Chinese women in the United States.

CHAPTER III

METHODOLOGY

This chapter discusses the research process used to conduct this study. The first section contains information on the participants and the recruiting procedures. The second section describes the instruments used in this study.

Participants and Procedures

Participants for this study were females 18-years-old and older, who self-identified as of Chinese origin and currently reside in the United States (n = 66). Participants were recruited through email list serve of Chinese and Taiwanese student organizations at large universities in the Southwest of the United States. Another recruiting method was through contact with two Chinese churches in California as well as through personal contact with individuals who fit the criteria for participation in this study. Descriptive information regarding participants for this study will be discussed in the next chapter.

Prior to data collection, the procedures for this study were reviewed and approved by the Institutional review Board for Human Subjects in Research at Texas A&M University. This study was categorized as exempt from full board review. Potential participants were contacted through several different methods. Recruitment emails were sent to email list serves of several Chinese and Taiwanese undergraduate and graduate student organizations at large universities in Texas (see Appendix A for recruitment email). The convenience sampling method was also extended to by participants who were requested to forward the recruitment email to those who fit the

participant criteria. In addition, through personal contact with members of two Chinese churches in California a total of 20 research packets were distributed at these churches. These groups were chosen in an attempt to ensure a wide distribution in terms of participants' ages and backgrounds. All participants were given packets of research materials, each containing a cover letter stating the purpose and the potential significance of the study, instruction for completing research materials, and contact information for the principal investigator (Appendix A), a demographic questionnaire (Appendix B), a Bem Sex-Role Inventory-Short Form (Appendix C), a Center for Epidemiologic Studies-Depression Scale (Appendix D), a Asian American Multidimensional Acculturation Scale-Culture of Origin as well as European American subscales (Appendix E), and the Anger Expression Scale for State-Trait Anger Expression Inventory-2 (with special permission from the publisher to reproduce; Appendix F). Participants were also provided with stamped envelopes to send back the completed surveys. As an incentive to potential participants, they also each received a 5-dollar cash reimbursement for their time and effort, regardless if they completed the survey. All participants were informed that their participation in this study was anonymous and voluntary. They were also given the contact information for the principal investigator in the event that they had questions or need more information about the study. Neither deception nor coercion was utilized in this study, and there were minimal risks involved in completing the survey.

Instrumentation

The instruments used in this study include a demographic questionnaire, the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1996), the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977), the Bem Sex-Role Inventory – Short Form (BSRI), and the Asian American Multidimensional Acculturation Scale (AAMAS; Chung et al., 2004). Participants were asked to complete the following questionnaires in the order stated. The order of administration of instruments was uniform across all data collections.

Demographic Information

Demographic questionnaire. Each participant was asked to complete a demographic questionnaire (see Appendix B) to gather information on age, place of birth, generation status, education level of participants and their parents, occupation, family financial status, length of residency in the US, and marital status.

Female Gender Role Identification

Bem Sex-Role Inventory – Short Form (BSRI-S). The Bem Sex-Role Inventory – Short Form (BSRI; Bem, 1974) was used to assess the degree to which individuals identify themselves along traditional gender roles. The BSRI-S is a 30-item subset of the original Bem Sex-Role Inventory (Bem, 1974), containing 10 items that are stereotypically feminine (e.g., affectionate, gentle, understanding, sensitive to the needs of others), 10 items that are stereotypically masculine (e.g., independent, assertive, dominant, willing to take risks), and 10 neutral filler items (e.g., conscientious, reliable, jealous). The BSRI-S assesses masculinity and femininity in terms of the respondent's

self-perceived possession of positive personality characteristics having gender-typed social desirability. Participants are asked to indicate on a 7-point scale ranges from 1 (“Never or almost never true”) to 7 (“Always or almost always true”) how well each of the 30 characteristics describes himself or herself. The BSRI-S is based on the theoretical understanding that the traditionally sex-typed person is someone who is highly attuned to cultural definitions of gender-appropriate behavior and who uses such definitions as the ideal standard against which his her own behavior is evaluated (Bem, 1981). As advocated by Strahan (1981), the Femininity scale of the BSRI was analyzed as a continuous, rather than a discrete variable in this study, which allowed for more statistical flexibility.

The masculinity and femininity scales of the BSRI have been shown to have better internal consistency and factorial purity than the same scales in the original 60-item instrument (Bem, 1979; Campbell, Gillaspy, & Thompson, 1997). Internal consistency of the BSRI has been examined in several studies with coefficient alphas ranging from .84 to .87. Test-retest reliability was found to range from .76 to .91 (Bem, 1974; 1981). Maznah and Choo (1986) examined the factor structure of the BSRI using an Asian sample and the internal consistency was found to be .91 for males and .89 for females. More recently, a study looking at the BSRI’s applicability in China (Zhang, Norvilitis, & Jin, 2001) showed comparable reliability between American and Chinese samples (.68 to .81 for Chinese sample).

Depressive Symptoms

Center for Epidemiological Studies-Depression Scale (CES-D). The Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977) was used to measure the participants' depressive symptoms. The CES-D (Appendix D) is widely used in community settings as a measure of current level of depressive symptomatology in the general population (Radloff, 1977). The scale has a four-factor index that identifies the duration and frequency of depressed affect, positive affect, somatic and retarded activities, and interpersonal problems. A sample item on the Depressed Affect subscale is "I felt lonely." a sample item on the Positive Affect subscale is "I felt hopeful about the figure." a sample item on the Somatic and Retarded Activities subscale is "My sleep was restless." and a sample item on the Interpersonal subscale is "People were unfriendly." The scale consists of 20 self-report items in which participants were asked to rate their experience of certain feelings or symptoms in the past week on a 4-point scale of 0 (less than 1 day) to 3 (5 to 7 days).

The internal consistency (alpha) reliability of the CES-D had been found to be approximately .85, and the 2-week test-retest correlation was estimated at .5 (Radloff, 1977). The CES-D has been used to study depressive symptoms in samples from different cultural groups and has been shown to be generally equivalent for use with U.S. and non-U.S. populations. In 1988, Ying investigated depression symptomatology among Chinese Americans and found the internal consistency to be adequately high (alpha = .77). In other studies CES-D was found to produce reliable results with Asian-American populations (Kuo, 1984; Kuo & Tsai, 1986). In a cross-cultural validation

study of the CES-D conducted with Chinese individuals, Yen, Robins and Lin (2000) found the alpha coefficient to be as high as .90. More recent studies on depressive symptoms among Chinese American adolescents and college students also reported alpha coefficients of .84 and .88, respectively (Tally, 2002; Ying, Lee, Tsai, Yeh, & Huang, 2000).

Acculturation Level

Asian American Multidimensional Acculturation Scale (AAMAS). The Asian American Multidimensional Acculturation Scale (AAMAS; Chung et al., 2004, Appendix E) was selected to measure the participant's level of acculturation. The AAMAS was developed using a sample of Asian Americans from a variety of ethnic groups and was developed based on an orthogonal model of acculturation allowed for the assessment of acculturation from a multidimensional perspective. The AAMAS consists of three scales of cultural orientation: AAMAS-Asian Americans (AAMAS-AA), AAMAS-European American (AAMAS-EA), and AAMAS-Culture of Origin (AAMAS-CO). AAMAS-AA assesses attitudes and acculturation regarding Asian ethnic groups that are different from the respondent's own Asian ethnic group while AAMAS-CO measures participants' attitude and acculturation regarding one's own Asian ethnic group. In addition, AAMAS-EA assesses one's attitude and acculturation regarding European American culture. For the purpose of this study only the participants' adherence to Chinese culture (AAMAS-CO) and to European American culture (AAMAS-EA) were used to assess behavioral acculturation in this study.

The AAMAS-CO and the AAMAS-EA each consists of 15 items with a 6-point rating scale. Within each dimension there are 4 acculturation domains of cultural identity, language, cultural knowledge, and food consumption (Chung et al., 2004). In the same study, internal reliability was verified with 4 administrations with Asian samples and the coefficient alphas for each AAMAS scales ranged from .76 to .91; test-retest reliability was shown to range from .75 to .89 (Chung, et al., 2004).

Anger Suppression

State-Trait Anger Expression Inventory-2 (STAXI-2). The STAXI-2 is a 57-item self-report measure and was developed and revised by Spielberger (1996; see Appendix F). The STAXI-2 consists six major scales and five subscales for assessing the experience, expression, and control of anger. Specific to this study, only the items measured the expression of anger will be administered to the participants. The Anger Expression Scale comprises of four subscales measuring different types of anger experience: (a) Anger Expression-Out—measures the frequency of outward expression of anger toward other people or objects in the environment; (b) Anger Expression-In—measures the frequency of suppression or holding in of anger experienced; (c) Anger Control-Out—measures how often the outward expression of anger is controlled, and (d) Anger Control-In—measures how often one attempts to control anger by calming down. The main interest of this study—Anger Suppression—is measured by the 8-item Anger In scale. Spielberger (1996) described that persons with high Anger-In scores frequently experience intense angry feelings, but they tend to suppress these feelings rather than expressing them either physically or through verbal behaviors. Participants were asked

to identify when they are feeling angry and how often they generally react or behave in the manner described in the items. All STAXI-2 item responses range from 1 to 4 indicating “almost never,” “sometimes,” “often,” and “almost always.” An example of an item assessing Anger In tendency is “I boil inside, but I don’t show it.”

The major scales and subscales of the STAXI-2 have been found to be internally consistent, factorially orthogonal, and empirically independent (Spielberger, Sydeman, Owen, & Marsh, 1999). The STAXI-2 has demonstrated good internal consistency with alpha coefficients for the scales ranging from .75 to .93 for females and from .72 to .94 for males (Spielberger et al., 1999). In addition, validity studies have provided strong evidence of convergent validity, demonstrating high correlations between STAXI-2 and other measures of anger such as the Buss-Durkee Hostility Inventory, and both the Hostility and Overt Hostility scales from the Minnesota Multiphasic Personality Inventory (Spielberger et al., 1999). The STAXI-2 has also been used in cross-cultural studies including Chinese and Asian American participants, during which the internal consistency coefficients ranged from .68 to .92 (Bishop & Quah, 1998; Tanzer et al., 1996).

CHAPTER IV

RESULTS

Preliminary Data Analyses

This study examined the relationship between anger suppression (measured by STAXI-2; Spielberger, 1999) and depressive symptoms (measured by CES-D; Radloff, 1977) among Chinese women residing in the United States, taking into consideration two other important factors affecting depressive symptoms among immigrants, as suggested by literature review. This chapter will present the results of descriptive statistics and scale reliability, preliminary findings, and evaluation of proposed hypotheses.

Descriptive Analyses of Demographics

Descriptive statistics of the sample (N = 66) was analyzed. Participants ranged in age from 19 to 74 years old with a mean of 39.68 (*SD* = 14.30). 54.5% of the participants are currently married and 30.3% identified as being single. There are 5 participants that are widowed and 2 self identified as coupled (not legally married). These women originally came from various areas of Asia such as Taiwan, Hong Kong, and People's Republic of China. Among the 60 participants who reported their birth place 30% were born in the United States, 26.6% were born in China and 46.6% were born in Taiwan. Participants were asked to identify which generation of Chinese American they are. Fourteen participants did not report their generation status. It is likely because these participants are international students and do not consider themselves Chinese Americans. The majority of the participants who reported their generation

information are first generation Chinese Americans (73%; *n* = 38) and 17% of the participants self identified as second generation (*n* = 9). There are also 4% of participants self identified as third generation Chinese Americans (*n* = 2) and 3 participants did not know which generation best fits with their situation. The number of years the participants residing in the United States ranged from 1 year to 63 years (*M* = 21.23; *SD* = 17.05).

Descriptive Analyses of Model Variables

Descriptive statistics including mean, standard deviation, skewness and kurtosis for the variables used in the model are presented in Table 1. Each variable was also analyzed to assess internal consistency and the results are presented in Table 2. Coefficient alpha for most of the instruments are satisfactory, ranging from .79 to .90. However, the European American subscale of the AAMAS (AAMAS-EA) produced an alpha value of .68. A careful examination of the inter-item correlation matrix (Table 3) revealed that both item 7 and item 15 have low correlations with other items in this subscale and were excluded from the list, which increased the alpha value from .68 to .92. It was decided that the 13-item AAMAS-EA subscale will be used in the analysis instead of the original 15 items.

Testing of Assumptions

The variables used in data analyses were first tested for fulfillment of univariate normality and multicollinearity. Table 1 presents descriptive statistics for all variables included in the measurement model. Univariate normality was assessed through the examination of levels of skewness and kurtosis for each variable. Skewness measures the

Table 1
Descriptives for Variables

Variables	Subscales	*M*	*SD*	Skewness	Kurtosis
Depressive Symptoms		.53	.41	1.07	1.04
Anger Suppression		2.06	.52	.67	.22
Female Gender Role Identification		5.34	.83	-1.35	3.21
Acculturation Level	Chinese Culture Orientation	4.73	.79	-1.19	2.43
	European American Orientation	4.22	.89	-.44	.44

N = 66

Table 2
Internal Consistencies of Each Variable

Variables	Subscales	N	Cronbach's Alpha	N of Items
Depressive Symptoms		65	.88	20
Anger Suppression		66	.79	8
Female Gender Role Identification		65	.87	10
Acculturation Level	Chinese Culture Orientation	65	.90	15
	European American Orientation	64	.68	15
	European American Orientation—Revised	64	.92	13

Table 3

Inter-item Correlation Matrix for European American Orientation

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.000	.806	.806	.657	.263	.302	.004	.623	.460	.517	.428	.446	.452	.319	.179
2	.806	1.000	.831	.592	.274	.321	-.018	.575	.371	.485	.527	.485	.471	.294	.121
3	.806	.831	1.000	.584	.195	.249	-.196	.608	.243	.411	.435	.390	.346	.157	.081
4	.657	.592	.584	1.000	.343	.332	-.134	.608	.538	.485	.537	.632	.442	.284	-.062
5	.263	.274	.195	.343	1.000	.673	.219	.435	.517	.494	.411	.547	.383	.419	.073
6	.302	.321	.249	.332	.673	1.000	.255	.476	.513	.540	.546	.593	.299	.394	-.093
7	.004	-.018	-.196	-.134	.219	.255	1.000	.141	.287	.123	.121	.073	.079	.255	.165
8	.623	.575	.608	.608	.435	.476	.141	1.000	.586	.581	.516	.558	.371	.349	-.071
9	.460	.371	.243	.538	.517	.513	.287	.586	1.000	.568	.461	.512	.439	.477	-.027
10	.517	.485	.411	.485	.494	.540	.123	.581	.568	1.000	.736	.748	.584	.569	.067
11	.428	.527	.435	.537	.411	.546	.121	.516	.461	.736	1.000	.739	.552	.473	-.087
12	.446	.485	.390	.632	.547	.593	.073	.558	.512	.748	.739	1.000	.580	.426	-.035
13	.452	.471	.346	.442	.383	.299	.079	.371	.439	.584	.552	.580	1.000	.519	.010
14	.319	.294	.157	.284	.419	.394	.255	.349	.477	.569	.473	.426	.519	1.000	.121
15	.179	.121	.081	-.062	.073	-.093	.165	-.071	-.027	.067	-.087	-.035	.010	.121	1.000

The covariance matrix is calculated and used in the analysis.

Table 4
Correlations between Variables

Variables		Female Gender Role Identification	Acculturation Level: Chinese Culture Orientation	Acculturation Level: European American Orientation	Anger Suppression	Depressive Symptoms
Female Gender Role Identification		1	.16	.14	.04	.17
Acculturation Level	Chinese Culture Orientation	_	1	-.50**	.04	-.09
	European American Orientation	_	_	1	-.23	-.17
Anger Suppression		_	_	_	1	.59**
Depressive Symptoms		_	_	_	_	1

** Correlation is significant at the 0.01 level (2-tailed).

symmetry of the distribution, while kurtosis is a measure for the flatness of the distribution. According to Kline (2005), a range of +/- 3 for level of skewness and a limit of 8.0 for level of kurtosis were suggested for evaluation and results indicated that the assumptions of univariate normality were met for all variables tested in the model. In addition, the correlation between predictor variables were examined to avoid violation of the multicollinearity assumption. Bivariate correlations between variables are presented in Table 4. Correlations greater than .85 should be further assessed as they may indicate redundancy and could adversely influence data analyses (Kline, 2005). None of the bivariate correlations exceeded this level.

Evaluation of Proposed Hypotheses

Path analysis techniques were used to examine the direct and indirect effects between variables, as supported by theory and previous research. It had been suggested that path analysis is especially appropriate when theoretical and empirical knowledge of a problem provides a hypothetical mapping of the variables and their probable causal links (Stage, Carter, & Nora, 2004). The path model represents hypothetical relationships between variables in the model including exogenous variables, which are defined as being caused by influences outside the model, as well as endogenous variables, which are influenced by other variables within the model. A specific focus of this investigation was to control for the effects of potential confounding variables—Female Gender Role Identification and Acculturation Level—when examining the direct relationship between Anger Suppression and Depressive Symptoms. Path analysis produced standardized path coefficients for each direct effect of a variable on another

variable, which quantifies the amount of change in a dependent variable that corresponds with a one-unit change in the independent variable (Stage et al., 2004).

Hypothesis 1: Anger Suppression and Depressive Symptoms

In this study the concept of Anger Suppression was measured by the Anger-In subscale of the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1996) and the main dependent variable Depressive Symptoms was measured by the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). The predicted positive relationship between inward-directed anger and depressive symptoms were consistent with the results of this study. Results of path analysis revealed a standardized path coefficient of .56 ($p < .01$) after controlling for female gender role identification and acculturation level. The magnitude of this relationship was large, and the direction of the relationship was in accordance with the hypothesis. Such a strongly significant positive relationship between these two variables indicated that individuals within this sample who reported higher level of anger suppression displayed a higher level of depressive symptoms.

Hypothesis 2: Female Gender Role Identification and Depressive Symptoms

It was hypothesized that Female Gender Role Identification, as measured by the Femininity items on the Bem Sex Role Inventory-Short Form (BSRI-S; Bem, 1974), would be positively correlated with Depressive Symptoms. Results of the path analysis supported this hypothesis and revealed a standardized path coefficient of .23 ($p < .05$), which indicated that individuals who identified with more female gender role descriptions had a higher level of depressive symptoms.

Hypothesis 3: Acculturation Level and Depressive Symptoms

Hypothesis 3a: Culture of origin orientation and depressive symptoms. It was hypothesized that the Culture of Origin (AAMAS-CO) subscale of the Asian American Multidimensional Acculturation Scale (AAMAS; Chung et al., 2004), which measures an individual's adherence to his or her own culture of origin, would be negatively correlated with Depressive Symptoms. Results of the path analysis supported the predicted direction of this association. However, path coefficients only revealed a small, non-significant correlation of -.22, providing minimal support for the stated hypothesis.

Hypothesis 3b: European culture orientation and depressive symptoms. It was hypothesized that European American (AAMAS-EA) subscale of the AAMAS, which measures the degree to which an individual adheres to European American culture, would have a negative relationship with Depressive Symptoms. Results indicated a small correlation of -.17. This correlation was not significant, therefore failing to support the stated hypothesis.

CHAPTER V

SUMMARY AND DISCUSSION

The purpose of this study was to investigate the relationship between anger suppression and depressive symptoms in Chinese women in the United States. In this chapter, the hypotheses of this study and subsequent results are reviewed. Each of the findings is discussed in detail and both research and clinical recommendations based on the data are introduced.

Hypothesis 1

The first hypothesis stated that after controlling for the effect of female gender role identification and acculturation level, anger suppression would have a direct positive effect on depressive symptoms among Chinese women in the US such that higher levels of anger suppression would predict higher levels of depression symptoms in this population (Figures 2 and 3; the covariance matrix is presented in Table 5). This prediction was strongly supported by the current sample. Path analysis suggested a statistically significant positive relationship between these two variables ($\beta = .56$, $p < .01$). The unstandardized path coefficient between anger suppression and depressive symptoms reveals a .44 unit increase in depressive symptoms in correspondence with a 1-unit increase in anger suppression. This finding is consistent with results found by researchers who tested Freud’s (1917/1994) conceptualization of depression as “anger turned inward” using Western samples (Biaggio & Godwin, 1987; Bromberger & Matthews, 1996; Clay et al.,1993; Cox et al., 1999; Sperberg & Stabb, 1998; Thomas, 1993). Freud conceptualized that individuals with significant tendencies to hold in their

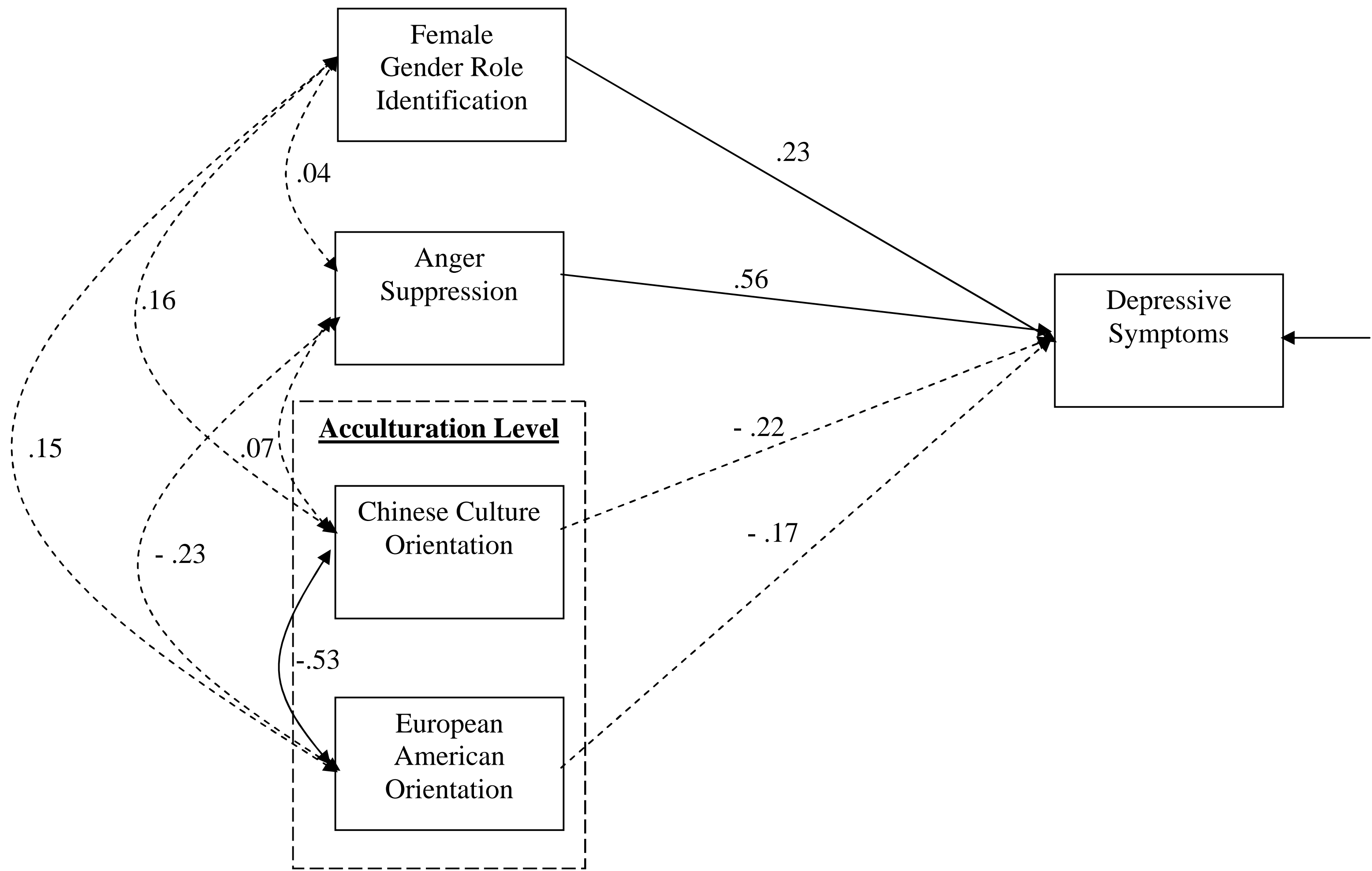

Figure 2. Standardized solution of proposed path model.

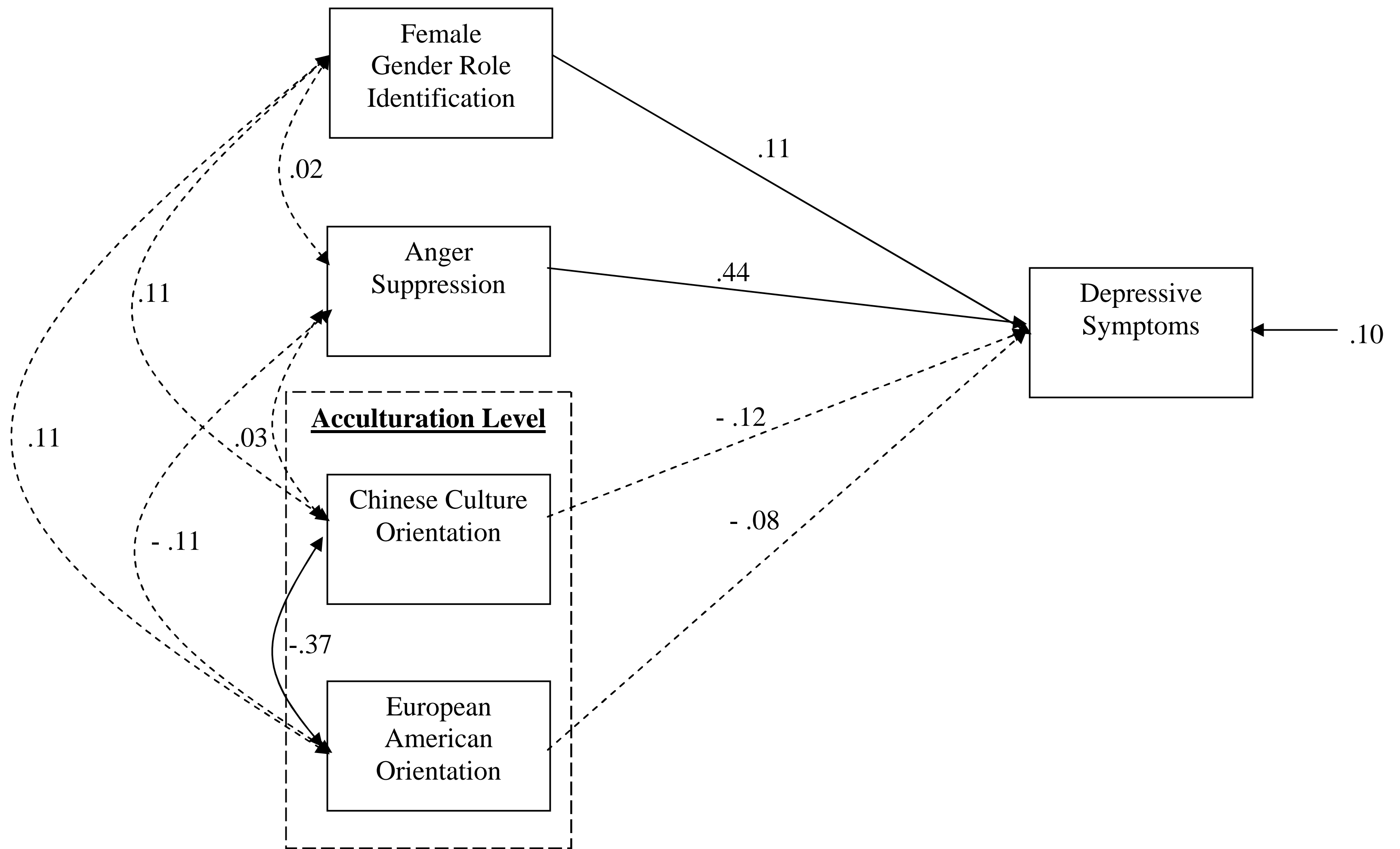

Figure 3. Unstandardized solution of proposed path model.

Table 5
Covariance Matrix

	European American Orientation	Chinese Culture Orientation	Anger Suppression	Female Gender Role Identification
European American Orientation	.803			
Chinese Culture Orientation	-.367	.599		
Anger Suppression	-.109	.030	.273	
Female Gender Role Identification	.113	.107	.016	.712

Table 6
Variances

	Estimate	S.E.	C.R.	P
Female Gender Role Identification	.712	.130	5.477	***
Anger Suppression	.273	.050	5.477	***
Chinese Culture Orientation	.599	.109	5.477	***
European American Orientation	.803	.147	5.477	***
e1	.098	.018	5.477	***

anger expression may subsequently experience higher levels of depression. It may be that when anger is elicited and one is unable or unwilling to express it, the emotion is inwardly directed and experienced as depression.

According to literature review, Female Gender Role Identification and Acculturation Level were identified as two potentially confounding factors that may also have direct effects on level of depression. After controlling for the effects of these two variables the relationship between Anger Suppression and Depressive Symptoms remained strong, which provides evidence that Anger Suppression is a unique contributor to Depressive Symptoms. This link between suppressed anger and depression for Chinese women in the United States may inform how depression is conceptualized and treated within this population; these considerations are explored under *Clinical Implications*.

Hypothesis 2

This hypothesis sought to investigate the relationship between Female Gender Role Identification and Depressive Symptoms (Bromberger & Matthew, 1996; Rothblum, 1982; Weissman & Klerman, 1977). Data gathered in this study supported this hypothesis in that Female Gender Role Identification had a direct positive effect on Depressive Symptoms among Chinese women in the United States such that higher degree of femininity predicted higher levels of depressive symptoms in this population (Figures 2 and 3). Path analysis revealed that Female Gender Role Identification has a moderate size of direct effect ($\beta = .23$, $p < .05$) on Depressive Symptoms, which partially explains the high prevalence of depression in women.

Hypothesis 3

Hypothesis 3 describes a direct negative relationship between acculturation level and depressive symptoms. More specifically, it was hypothesized that the more a Chinese woman adheres to Chinese culture the less likely she would be to experience depressive symptoms. It was also hypothesized that the more a Chinese woman adheres to European American culture, the less likely she would be to experience depressive symptoms. Such hypotheses were derived from two proposed theories to explain the effect of acculturation on immigrants' psychological wellness. The "immigrant adjustment" hypothesis (Rumbaut & Weeks, 1996; Takeuchi et al., 2002) predicts that due to acculturative stress, recent immigrants and those who have lower levels of acculturation to the host culture may suffer from higher stress level and other psychological illness. On the other hand, the "immigrant paradox" hypothesis suggests that immigrants who have lower level of acculturation are often healthier than their more acculturated counterparts. It was suggested that this "paradox" was a result of immigrants' ability to maintain their adherence to their culture of origin. In other words, their traditional culture values serve as a protective mechanism in helping these immigrants fight against psychological stress resulting from the immigration process. To summarize, both a higher level of orientation to the host culture and a higher level of orientation to one's culture of origin would lead to better emotional wellness, and lower levels of depression. This hypothesis is consistent with what has been proposed by clinicians and researchers—that for many immigrants, biculturalism leads to better psychological health (Chung et al., 2004). Chung and colleagues (2004) advocated that

acculturation is a multi-dimensional process and in order to assess for bi-culturalism, they proposed a multi-dimensional instrument—the Asian American Multidimensional Acculturation Scale (AAMAS)—to assess an immigrant's adherence to both the host culture and his or her culture of origin. In this study, it was expected that both dimensions of acculturation (orientation to Chinese culture and orientation to European American culture) would have direct negative effects on depressive symptoms.

Hypotheses 3a and 3b

The direction of the hypothesized negative association between Chinese culture orientation and depressive symptoms was found in this study but the relationship did not reach a statistically significant level. Similarly, the results of the path analysis revealed a negative relationship between European American orientation and depressive symptoms but this relationship was also not statistically significant. This outcome was most likely a result of this study's small sample size and the subsequent reduced statistical power. Potential problems concerning sample size and sample composition will be further discussed in the next chapter. It was worth noting, however, that despite a small sample size these two variables still produced standardized coefficients of -.22 (for Chinese culture orientation) and -.17 (for European American orientation). It could be reasonably expected that meaningful relationships would be detected with a larger sample size and higher statistical power.

It may also be worth mentioning that the results showed a significant negative relationship between Chinese culture orientation and European American orientation ($r = -.50$, $p < .01$), which indicated that for this sample of Chinese women, the greater their

adherence to the European American culture, the less their adherence to Chinese culture. According to the multi-dimensional theory of acculturation (Chung et al., 2004) these two concepts were expected to be independent of each other; the authors conducted 3 separate studies and did not find any significant relationships between these two subscales (*r* ranged from -.06 to -.12). The results from the current sample seem to indicate a uni-dimensional conceptualization. It appeared that in the process of adopting the host-culture attributes (including values and behaviors), these participants simultaneously discarded these same attributes that correspond to their culture of origin, which may also indicate that biculturalism was not detected in this sample.

In addition to sample size, there are a number other possible reasons for this lack of support. First, it may be a result of not having enough variation in this sample within the dependent variable—Depressive Symptoms. According to the descriptive analysis about 48% (n = 32) of the participants reported no depressive symptoms (CES-D total score lower than 9), 24% (n = 16) reported borderline level of depression, 12% (n = 8) reported mild level of depression and 14% (n = 9) reported moderate to severe level of depressive symptoms. Since a higher percentage of the participants reported no or only mild level of depressive symptoms the variation in this variable may not have been enough to reveal the true relationship between acculturation level and depression.

Another potential explanation was that there may be a mediator variable between each of the acculturation level and depressive symptoms. For example, researchers have found personality characteristics such as heartiness and resilience to be prominent among immigrants. Although these personality characteristics may be the missing link

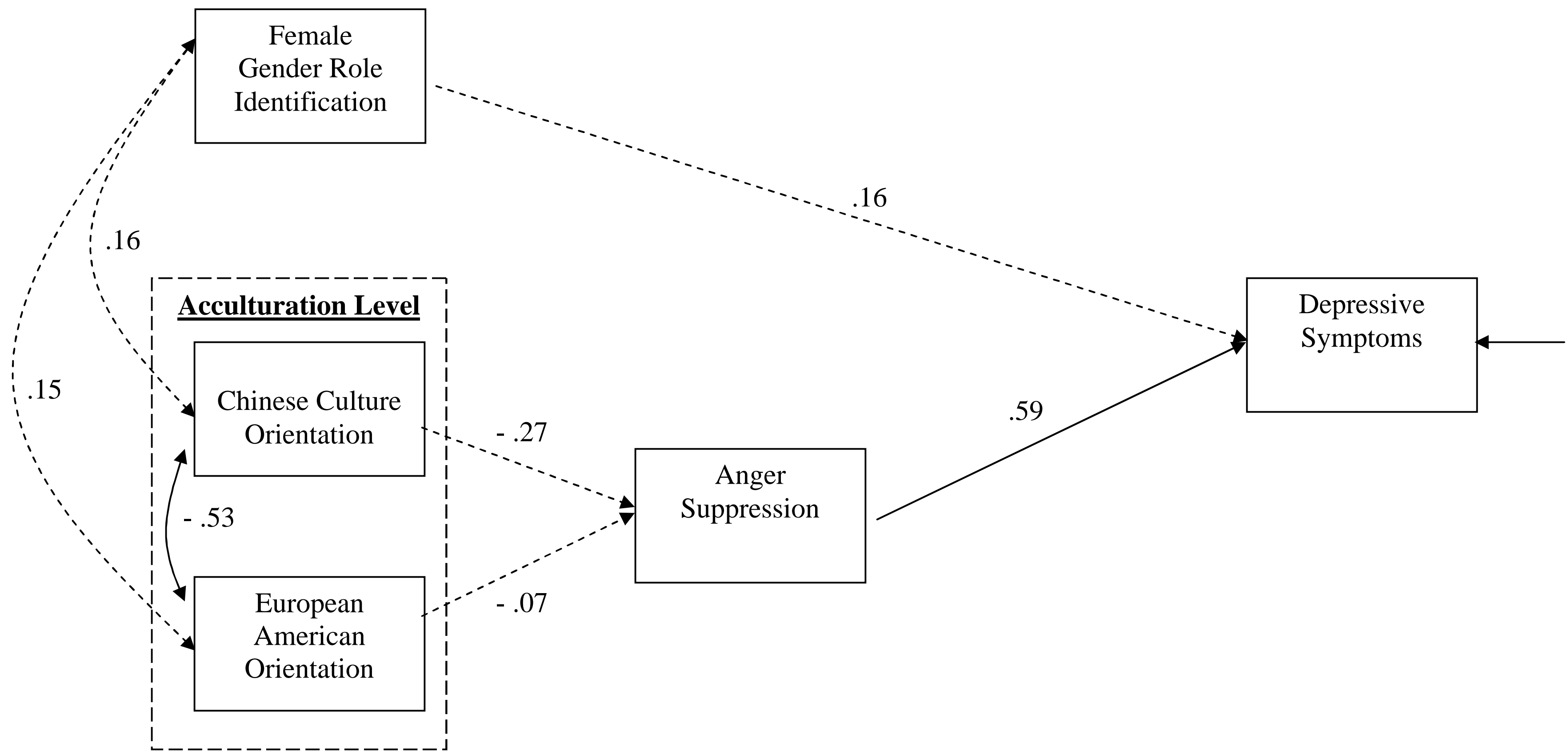

Figure 4. Standardized solution of modified path model.

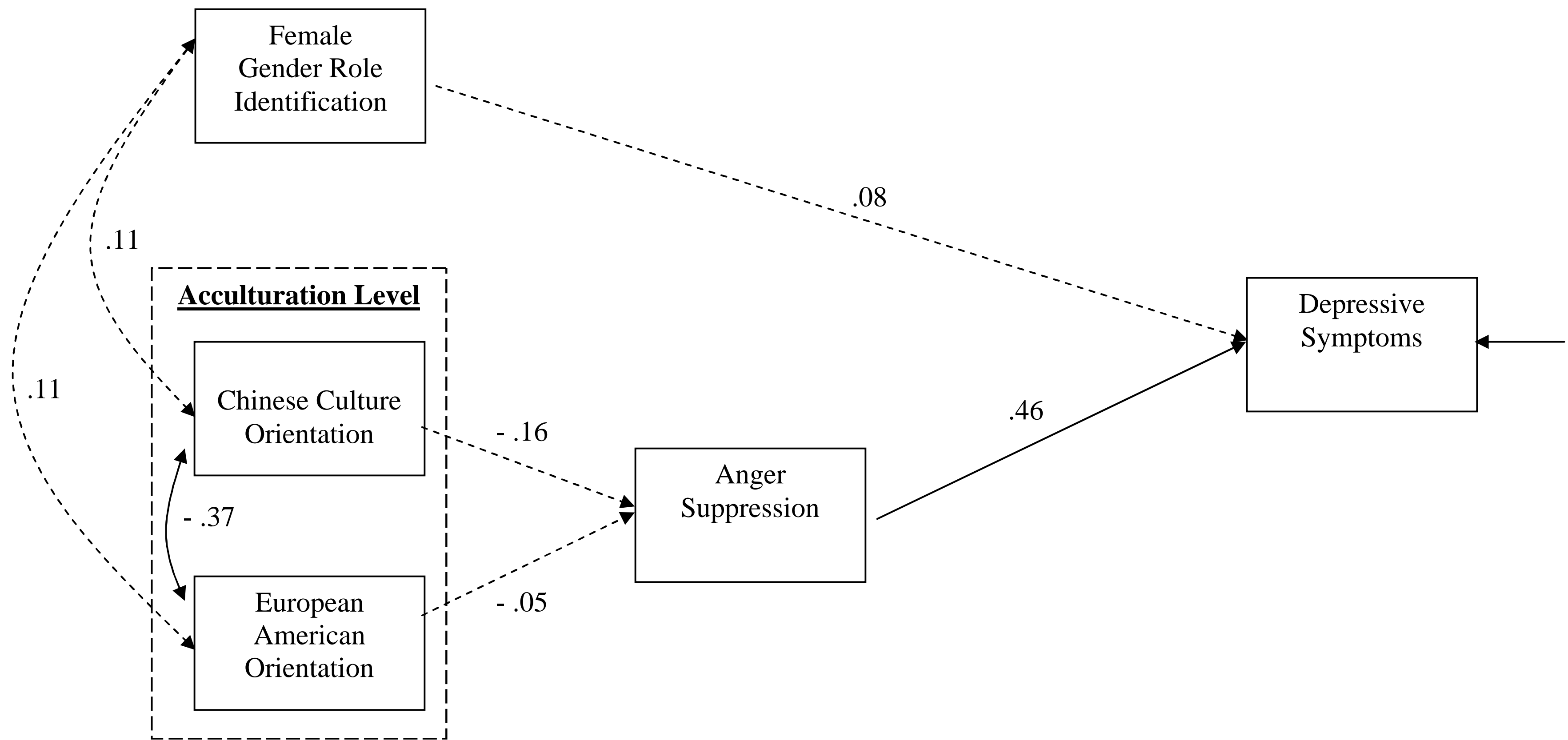

Figure 5. Unstandardized solution of modified path model

between acculturation level and depressive symptoms, a further examination of the path model revealed an error variance of .10 (Table 6), which indicated that only 10% of the variance in the dependent variable Depressive Symptoms was not explained by the independent variables included in this path model (Female Gender Role Identification, Anger Suppression, Chinese culture orientation, and European American orientation). In order to further investigate the relationships among these variables, a second model was proposed to examine whether Anger Suppression may be a mediator between acculturation levels and Depressive Symptoms. Figures 4 and 5 illustrate the proposed path model as well as the path coefficients between variables. According to the analysis, neither of the relationships between Chinese Culture Orientation and Anger Suppression, nor between European American Orientation and Anger Suppression was significant, thus failing to support the possibility of a mediator effect.

Limitations of Study

Although this study produced important information regarding direct relationships from two important concepts—the role of Female Gender Role Identification and Anger Suppression in understanding Depressive Symptoms—several relationships tested in the path model did not reach a statistically significant level. This outcome may have been a result of research limitations in this study.

The first limitation was the rather small sample size utilized in this study (66 total, 61 for the path analysis), which contributed to reduced statistical power. In addition, a low level of depressive symptomatology was found in this sample, which may also explain why some of the hypothesized relationships failed to reach statistical

significance. In the current sample, the mean value for the CES-D score was 10.68 (SD = 8.17), which was similar to the results of a sample of 360 Chinese Americans conducted by Ying in 1988 (M = 11.55, SD = 8.23). A CES-D score of 16 and above has been used as indicative of clinical depression in the literature. Ying (1988) reported that 24.2% of the sample scored 16 and higher. The analysis of data collected for this study indicated that about 26.2% of the participants scored 16 and higher on the CES-D, which is also consistent with the findings from Ying's 1988 study. This lack of variation in the dependent variable, Depressive Symptoms, may be explained by the fact that at least one third of the sample came from religious settings (Christian churches). There is a possibility that these participants' commitment to their religion or spirituality may have shielded them from depression. Another related consideration is that those who are not exhibiting depressed mood may have self-selected to participate in this study, thus resulting in the limited variation within the dependent variable.

The issue of using self-reported data may also have been a potential problem for this study. While the emotions divulged in self-report surveys are within one's conscious awareness, they may not be reflective of any potential unacknowledged and repressed emotions. Especially when reporting strong negative emotions such as anger, it is possible that some participants may have under-reported their behavior. The withholding of anger may also have been a function on the unconscious level (Cheng et al., 2005).

Implications for Future Research

The findings of this study highlighted a number of considerations for future research. Future path analysis research should utilize a much larger sample size to

provide greater statistical power and opportunity for statistical significance. It is also important to ensure that there will be enough variability in all the variables tested in the path model. This may be accomplished by recruiting participants from a wide variety of settings. An inclusion of a clinical sample would also add to the explanatory ability of the model. In addition, with a larger sample researchers will also be able to include more variables to be tested in the same model, thereby constructing a more sophisticated model that will permit simultaneous examination of relationships between variables.

Future research may also benefit to include a control group sample in order to compare the magnitudes of the effects between variables across groups. For example, more information could be gained from including a sample of Chinese men or a different group of immigrant women; this would allow one to look at gender differences and the impact cultural values have on psychological wellness among different female immigrant groups.

Although an extensive literature review of studies regarding depression in Chinese and Chinese Americans was conducted for this study, there are other variables such as socioeconomic status, education level, length of residency in the United States, which have also been found to be good predictors for level of depression for this population as well as other immigrant groups (Kuo, 1984; Sperberg & Stabb, 1998; Takeuchi et al., 2007; Ying, 1988). These should also then be investigated in future research projects.

With a larger sample, it may also be helpful to categorize participants' cultural orientation into four categories (high on both Chinese culture orientation (CO) and

European American orientation (EA); high on CO but low on EA; low on CO but high on EA; low on both CO and EA) and to compare the levels of depressive symptoms among these four groups of Chinese women; this would permit one to further explore the relationship between acculturation level and depressive symptoms. Such categorization would allow researchers to specifically compare individuals with bicultural identity to those who identify with a specific cultural orientation (either Chinese or European American).

Different populations may exhibit cultural-bound syndromes and manifest different symptoms for the same disorders (Sue et al., 1995; Tabora & Flaskerud, 1994). It has been emphasized in previous researches that Chinese Americans prefer to label their depressive symptoms as neurasthenia (Kleinman, 1982; Takeuchi et al., 2002; Sue et al., 1995), which is used as a convenient idiom of distress widely accepted in the Chinese communities. Chinese culture downplays individual feelings; avoidance of strong emotions is necessary to maintain family harmony (Thomas, 1993). Zhang (1995) stressed that somatic complains are much more common and more culturally acceptable than affective expressions among Chinese clients. Such a result was also found in other studies focusing on Asian immigrants (Takeuchi et al., 2002). Chinese Americans were also found to have tendencies to complain about physical discomforts when they experienced psychological or emotional problems (Hong, Lee & Lorenzo, 1995; Tabora & Flaskerud, 1994). Because the expression of somatic complaints is more socially acceptable to Chinese Americans than is the expression of emotional complaint, an instrument that measures this dimension of depressive symptoms (e.g., Brief Symptom

Inventory (BSI), Derogatis & Melisaratos, 1983) in addition to one derived from a Western conceptualization of depression should be included in the survey battery.

Clinical Implications

Findings of this study represent a valuable addition to the literature on Chinese women's psychological wellness. It is hoped that results generated from this study will enable clinicians and mental health professionals to provide more efficacious treatments when working with Chinese women in the United States. Clinicians, researchers, and scientists need to investigate and create more effective and culturally appropriate psychological interventions in order to mitigate depressive symptoms. Given the social role prescriptions for Chinese women, it is reasonable to expect that depression would more often be the presenting problem in therapy than anger. However, the results of this study showed that proceeding to treat depression without considering the possible role of anger in the client's experience may be treating only symptoms of a somewhat different underlying problem (Newman et al., 1999).

Accordingly, the consequences of and ways to manage anger also need to receive more attention. It is possible that women repress certain negative feelings to keep interpersonal harmony . It is necessary for therapists to pay attention to cues such as depression and psychosomatic complaints that Chinese women, and perhaps women from other cultural groups, exhibit about feelings of guilt and anger, and help them deal with these feelings in a manner congruent with their culture. Clay, Anderson and Dixon (1993) offered clinicians the following interventions to address client anger: (a) normalize anger, that is, help clients recognize that anger is a normal human emotion;

(b) encourage clients to participate in assertion training; (c) encourage clients to utilize opportunities to appropriately express anger; and (d) encourage clients to practice appropriate displays of anger during session. Although these approaches seem fitting for most European American clients, methods routinely used by Western counselors to encourage expression of anger openly in session need to be modified for clients with Chinese cultural values. Since traditional Chinese culture places strong emphasis on restrain of strong emotions, clients may experience a great deal of secondary shame as a result of such anger expression (Chen & Davenport, 2005). Taking into consideration the "situational" nature of Chinese culture (Chen & Davenport, 2005) clinicians are also encouraged to pay attention to the context of anger expression (Carmony & DiGiuseppe, 2003;) and the antecedents that give rise to the anger in individuals with traditional Chinese values (Lee, 1993; Tanaka-Matsumi, 1995). For example, the cultural value of showing obedience and respect to one's parents may prompt these clients to experience and express anger toward parents very differently than they would to close friends.

Finally, this study found no statistically significant relationship between acculturation level (Chinese culture orientation and European American orientation) and Depressive Symptoms, which may be indication that the relationship between acculturation and depression is more complicated than it has been hypothesized. When working with Chinese women clinician need to be sensitive to clients' acculturation experience as a whole instead of trying to categorize these clients as being at a certain level or stage of acculturation.

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APPENDIX A

Dear participant,

Thank you for agreeing to participate in a research study which will examine how Chinese women perceive their roles as females, their experiences living in the US, how they deal with challenging emotions and their psychological well-being. The purpose of this study is to gather information which will contribute to the knowledge base about how to promote the quality of life among Chinese women residing in the United States. Since very little research about the experience and mental health of this population has been conducted in the past, your participation and input is crucial.

Participation involves completing a short demographic form and 4 short questionnaires and the survey should take about 20-25 minutes to complete. You participation in this study is completely voluntary and anonymous and there are minimum to no physical or psychological risks for participation in this study. In addition, participating in this survey may benefit you by providing you the opportunity to examine your understanding of yourself and your experience as a Chinese woman living in the United States.

Recognizing that participation in this project is an investment of your valuable time, a 5 dollar cash reimbursement for your effort is included in this packet. When the questionnaires are completed, please return the packet to me using the self-addressed envelope included in the survey packet. If you have any questions about this study or the procedure, please do not hesitate to contact me by phone at 979-595-5811 or by email at sylviachen@tamu.edu. Thank you for your time and consideration in this project. Your participation is greatly appreciated!

Sincerely,

Sylvia Wen-Hsin Chen, MA

APPENDIX B

Demographic Information: *Please fill out the following information about yourself:*

1. Female_____ Male _____

2. How old are you? _____ years

3. What is your current occupation(s)? _______________

4. Marital status (check only one current status)
   _____ Single _____ Coupled (not legally married)
   _____ Married _____ Separated
   _____ Divorced _____ Widowed

5. Do you consider yourself as of Chinese origin/descent? Yes_____ No_____
   If so, what country were you born? ________________

6. Where do you currently live? ___________________ ___________________
   City State

7. If you consider yourself as Chinese American, please identify the generation that best describes you:
   _____ 1st generation _____ 4th generation and beyond
   _____ 2nd generation _____ Don't know what generation best fits
   _____ 3rd generation

8. How many years have you resided in the U.S.? _____ years

9. Please indicate your yearly family income:
   _____ Less than $5,000 _____ $40,000 – $59,999
   _____ $5,000 – $9,999 _____ $60,000 – $79,999
   _____ $10,000 – $19,999 _____ $80,000 – $99,999
   _____ $20,000 – $39,999 _____ $100,000 or higher

10. What is your highest level of education? _______________

11. Parent's Highest Educational Level
    Mother_______________ Father _______________

12. How do you identify yourself culturally (please circle the number that best describes you)?
    Chinese----------------------------------American
    1 2 3 4 5 6 7

APPENDIX C

Please indicate how well the following adjectives describe you.

	Never or almost never true	Usually not true	Sometimes but infrequently true	Occasionally true	Often true	Usually true	Always or almost always true
13. Defend my own beliefs	1	2	3	4	5	6	7
14. Affectionate	1	2	3	4	5	6	7
15. Conscientious	1	2	3	4	5	6	7
16. Independent	1	2	3	4	5	6	7
17. Sympathetic	1	2	3	4	5	6	7
18. Moody	1	2	3	4	5	6	7
19. Assertive	1	2	3	4	5	6	7
20. Sensitive to needs of others	1	2	3	4	5	6	7
21. Reliable	1	2	3	4	5	6	7
22. Strong personality	1	2	3	4	5	6	7
23. Understanding	1	2	3	4	5	6	7
24. Jealous	1	2	3	4	5	6	7
25. Forceful	1	2	3	4	5	6	7
26. Compassionate	1	2	3	4	5	6	7
27. Truthful	1	2	3	4	5	6	7
28. Have leadership abilities	1	2	3	4	5	6	7
29. Eager to soothe hurt feelings	1	2	3	4	5	6	7
30. Secretive	1	2	3	4	5	6	7
31. Willing to take risks	1	2	3	4	5	6	7
32. Warm	1	2	3	4	5	6	7
33. Adaptable	1	2	3	4	5	6	7
34. Dominant	1	2	3	4	5	6	7
35. Tender	1	2	3	4	5	6	7
36. Conceited	1	2	3	4	5	6	7
37. Willing to take a stand	1	2	3	4	5	6	7
38. Love children	1	2	3	4	5	6	7
39. Tactful	1	2	3	4	5	6	7
40. Aggressive	1	2	3	4	5	6	7
41. Gentle	1	2	3	4	5	6	7
42. Conventional	1	2	3	4	5	6	7

APPENDIX D

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
43. I was bothered by things that usually don't bother me.	1	2	3	4
44. I did not feel like eating; my appetite was poor.	1	2	3	4
45. I felt that I could not shake off the blues even with help from my family or friends.	1	2	3	4
46. I felt I was just as good as other people.	1	2	3	4
47. I had trouble keeping my mind on what I was doing.	1	2	3	4
48. I felt depressed.	1	2	3	4
49. I felt that everything I did was an effort.	1	2	3	4
50. I felt hopeful about the future.	1	2	3	4
51. I thought my life had been a failure.	1	2	3	4
52. I felt fearful.	1	2	3	4
53. My sleep was restless.	1	2	3	4
54. I was happy.	1	2	3	4
55. I talked less than usual.	1	2	3	4
56. I felt lonely.	1	2	3	4
57. People were unfriendly.	1	2	3	4
58. I enjoyed life.	1	2	3	4
59. I had crying spells.	1	2	3	4
60. I felt sad.	1	2	3	4
61. I felt that people dislike me.	1	2	3	4
62. I could not get "going."	1	2	3	4

APPENDIX E

Use the scale below to answer the following questions. Please circle the number that best represents your view on each item.

	Not very well 1	2	Somewhat 3	4	Very well 5	6
63. How well do speak the language of –						
your own Asian ethnic group?	1	2	3	4	5	6
English?	1	2	3	4	5	6
64. How well do you understand the language of –						
your own Asian ethnic group?	1	2	3	4	5	6
English?	1	2	3	4	5	6
65. How well do you read and write in the language of –						
your own Asian ethnic group?	1	2	3	4	5	6
English?	1	2	3	4	5	6
66. How often do you listen to music or look at movies and magazines from						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
67. How much do you like the food of –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
68. How often do you eat the food of –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
69. How knowledgeable are you about the history of –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
70. How knowledgeable are you about the culture and traditions of –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
71. How much do you practice the traditions and keep the holidays of –						
your own Asian ethnic culture?	1	2	3	4	5	6
the White mainstream culture?	1	2	3	4	5	6
72. How much do you identify with –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
73. How much do you feel you have in common with people from –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6

	Not very well 1	2	Somewhat 3	4	Very well 5	6
74. How much <u>do you interact and associate with</u> people from –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
75. How much <u>would you like to</u> interact and associate with people from –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
76. How <u>proud are you</u> to be part of –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6
77. How <u>negative</u> do you feel about people from –						
your own Asian ethnic group?	1	2	3	4	5	6
the White mainstream groups?	1	2	3	4	5	6

APPENDIX F

Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel angry or furious. Read each statement and then circle the appropriate number to indicate how often you generally react or behave in the manner described when you are feeling angry or furious. There are no right or wrong answers. Please do not spend too much time on any one statement.

	Almost never	Sometimes	Often	Almost always
78. I control my temper	1	2	3	4
79. I express my anger	1	2	3	4
80. I take a deep breath and relax	1	2	3	4
81. I keep things in	1	2	3	4
82. I am patient with others	1	2	3	4
83. If someone annoys me, I'm apt to tell him or her how I feel	1	2	3	4
84. I try to calm myself as soon as possible	1	2	3	4
85. I pout or sulk	1	2	3	4
86. I control my urge to express my angry feelings	1	2	3	4
87. I lose my temper	1	2	3	4
88. I try to simmer down	1	2	3	4
89. I withdraw from people	1	2	3	4
90. I keep my cool	1	2	3	
91. I make sarcastic remarks to others	1	2	3	4
92. I try to soothe my angry feelings	1	2	3	4
93. I boil inside, but I don't show it	1	2	3	4
94. I control my behavior	1	2	3	4
95. I do things like slam doors	1	2	3	4
96. I endeavor to become calm again	1	2	3	4
97. I tend to harbor grudges that I don't tell anyone about	1	2	3	4
98. I can stop myself from losing my temper	1	2	3	4
99. I argue with others	1	2	3	4
100. I reduce my anger as soon as possible	1	2	3	4
101. I am secretly quite critical of others	1	2	3	4
102. I try to be tolerant and understanding	1	2	3	4
103. I strike out at whatever infuriates me	1	2	3	4
104. I do something relaxing to calm down	1	2	3	4
105. I am angrier than I am willing to admit	1	2	3	4
106. I control my angry feelings	1	2	3	4

	Almost never	Sometimes	Often	Almost always
107. I say nasty things	1	2	3	4
108. I try to relax	1	2	3	4
109. I'm irritated a great deal more than people are aware of	1	2	3	4

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