Prevalence and Risk Factors of Elder Maltreatment among Chinese Americans

by

Xiang Gao

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Graduate Supervisory Committee:

Fei Sun, Chair
Robin Bonifas
Flavio Marsiglia

ARIZONA STATE UNIVERSITY

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ABSTRACT

All ethnic groups in the U.S. have suffered from elder maltreatment (EM), but literature on this topic among Chinese Americans is sparse. Only one group of researchers has exclusively focused on the EM experiences of Chinese Americans in the U.S. A recent study indicated the prevalence rate of EM was 24% among residential-dwelling Chinese American elders and the most prevalent forms of EM are psychological maltreatment (10%) and financial maltreatment (10%). However, the effect of family relationship and cultural factors on EM have not yet been explored. The traditional Chinese culture emphasizing family cohesion and filial piety, along with the acculturation stress and language barriers may increase the risks of EM in this population.

This exploratory research aimed to understand EM perpetrated by family members in residential settings among Chinese American elders and the risk factors of EM in this population, focusing on the Phoenix metropolitan area. Particularly, understanding EM through both a cultural lens and a legal lens shed light on the roles of socio-cultural variables (family support and cultural variables) associated with EM among Chinese American elders, one of the fastest growing ethnic groups in the U.S.

To achieve these research aims, a larger quantitative component building on a small qualitative component was utilized. In Phase I, focus groups were conducted to ensure subsequent survey questions were culturally and linguistically appropriate. Feedback from the focus groups was used to refine the questionnaire designed for this study. In Phase II, revised questionnaires were distributed to 266 Chinese American older adults to detect EM prevalence and to identify the factors associated with victimization. The ecological theory provides guidance for the study.

In the end, one of ten Chinese American elders experienced general EM perpetrated by family members. The dominant forms of EM, elder neglect and emotional maltreatment, may have serious emotional outcomes and threaten the well-being of Chinese elders. To prevent the occurrence and recurrence of EM, service professionals and gatekeepers in the community need to work with Chinese American families to reduce elders' depression levels, promote family cohesion and eliminate the intergenerational culture/acculturation differences.

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Chapter 1

INTRODUCTION AND IMPORTANCE

Overview

Elder maltreatment (EM) severely threatens the physical and psychological well-being of older adults across ethnic groups. Since the 1970s, studies in western countries suggest that the prevalence of EM varies largely, from 1.3% to 27.5% depending on the definition, measurement, methods of data collection, sampling sites and target population (Dong, Chang, Wong, Wong, & Simon, 2011; Cooper, Selwood, & Livingston, 2008; Fulmer, Guadagno, & Connolly, 2004). In a recent national study, it is estimated that one in ten older adults in the U.S. have experienced some sort of EM (Acierno et al., 2010).

It is important to note that a substantial number of cases are not reported. It is estimated that about 4.3% to 7.1% of episodes of EM are reported (Lachs, 2011; Panel to Review Risk and Prevalence of Elder Abuse and Neglect, National Research Council, 2003). Differences in reporting rates may result from the variation in EM definitions, measurement and samples. The non-report rate may be larger among ethnic minority groups. Studies on Latino Americans suggest that underreporting of EM in this population is due to the cultural belief that private issues should be resolved within the families and fear of governmental authorities (DeLiema, Gassoumis, Homeier, & Wilber, 2012). It is estimated that Asian Americans are less likely to report EM cases than their Caucasian counterparts, considering their tolerance of abusive situations (i.e. not perceiving given scenarios as abusive) and the lack of knowledge on reporting (Moon, Tomita, & Jung-Kamei, 2002; Moon & Williams, 1993).

The term "elder maltreatment" has been inconsistently used in the literature. "Elder abuse", "elder mistreatment" and "elder neglect" are often used interchangeably to refer to a violation of the human or civil rights for people over the age of 65 (e.g., Cooper, Selwood, & Livingston, 2008; Dong, Chang, Wong, Wong, & Simon, 2011). This study utilizes the term "elder maltreatment" as a general term to incorporate the connotation of "elder abuse" (i.e. physical, emotional, financial maltreatment) and "elder neglect". According to the definition of the World Health Organization, EM is "a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person" (WHO, 2011). Common types of EM include physical, emotional, financial maltreatment and elder neglect. Physical maltreatment means "the willful infliction of injury, or cruel punishment resulting in physical harm and pain" (Dong, Simon, & Gorbien, 2007, p. 84). Emotional maltreatment means "acts done with the intention of causing emotional pain or injury" (Lachs & Pillemer, 2004, p. 1264). Financial maltreatment means misappropriation of money or property (Lachs & Pillemer, 2004). Elder neglect means the failure to provide "the goods or services necessary to avoid physical harm, or mental anguish" (Dong, Simon, & Gorbien, 2007, p. 84). Neglect in this study refers to caregiver's neglect. While guided by these definitions, the investigator was aware that participants had their own understanding of EM.

Statement of the Problem

All ethnic groups in the U.S. have suffered from EM, but literature on this topic among Chinese Americans is sparse. Chinese Americans are the second-largest immigrant group and the largest Asian group in the U.S. (Mui & Shibusawa, 2008; U.S.

Census Bureau, 2002). The number of Chinese American older adults is growing at a much faster rate than the number of their Anglo-Saxon counterparts (Administration on Aging, 2009). It is estimated that 80% of Chinese American older adults are foreign-born (Gallagher-Thompson et al., 2007). In traditional Chinese culture, filial piety is emphasized in Confucian teaching. A Confucian ideal attaches importance to the respect and love for parents, which is manifested by providing health care, financial support and showing obedience to parents (Lai, 2009). Parents sacrifice their wealth for the well-being of the whole family and the educational achievement of their children (Yoon, Eun, & Park, 2000). In reciprocity, children are obligated to care for their aging parents. In Mainland China, the newly revised Elder Rights Protection Laws (2013) add that adult children would face financial penalty if they fail to provide financial, emotional and instrumental support to their older parents and fail to visit or greet their parents "frequently". Thus, it is likely that Chinese elders may perceive inadequate emotional support to be unacceptable or even abusive by their cultural norms (e.g., filial piety) or legal standards (e.g., the newly revised Chinese law). Moreover, immigration to the U.S. may impose culture shock on Chinese people. Collectivism and interdependence in the traditional Chinese culture is challenged by Western individualism and independence. Immigration to the U.S. may also disturb the balanced relationship between parents and children. For example, a study on Korean and Chinese elders found the changes in their perspectives of family life associated with immigration: 1) the extended family is replaced by the nuclear family; 2) parents lose their authority within the family; and 3) children live far away from their parents (Wong, Yoo, & Stewart, 2006). Acculturation stress, along with language barriers and lack of access to services, may "fundamentally

threaten the support system of frail Chinese older adults, which may further exacerbate vulnerability, physical dependency, and psychological distress," (Dong et al., 2011, p. 291) and lead to an increased risk for EM.

Purpose of the Study

This exploratory research aimed to understand EM perpetrated by family members in residential settings among Chinese American elders (aged 60 or above), and the correlates of EM in this population, focusing on the Phoenix metropolitan area. Particularly, understanding EM through both a cultural lens and a legal lens shed light on the roles of socio-cultural variables (family support variables and cultural variables) associated with EM among Chinese American elders, one of the fastest growing ethnic groups in the U.S. (Administration on Aging, 2009). The importance of this study is further detailed below. The aims of this quantitative study using a sample of non-institutionalized Chinese American older adults: 1) determining the prevalence of EM among older Chinese Americans; and 2) assessing the risk or protective factors for EM.

To achieve these research aims, a larger quantitative component building on a small qualitative component was utilized to explore the prevalence and associated factors of EM among Chinese Americans. In Phase I, focus groups were conducted to ensure subsequent survey questions were culturally and linguistically appropriate. Feedback from the focus groups was used to refine the questionnaire designed for this study. In Phase II, revised questionnaires were distributed to Chinese American older adults to detect EM prevalence and to identify the factors associated with victimization. The ecological theory provides guidance for the study, and is discussed later in this manuscript.

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Significance

This study enriches our understanding of EM, a hidden social problem among Chinese American elders. While previous studies have focused on the perception, prevalence and associated factors of EM among Americans overall, this study helps understand EM within a specific ethnic minority group through both a cultural lens and a legal lens and expands an understudied area of health disparity.

The sample in this study was selected from Chinese older adults living in the Phoenix metropolitan area where an increasing number of Chinese Americans live, and yet there is limited access to formal supportive resources. Although Arizona has witnessed a rapid growth of the Chinese population in recent decades, it does not yet have an organized ethnic community. This study investigated into the EM problem in this population that may be isolated from the mainstream American society, and may receive limited community services and formal support, considering their lack of English literacy and transportation. The results of this Phoenix-based study in Phoenix have greater applicability to Chinese Americans spreading dispersing throughout other geographic locations in a similar manner, compared to existing studies conducted in major cities where a large number of Chinese people are already concentrated in culturally exclusive communities, such as Chicago with its large Chinese population residing in Chinatown.

The implications of results of this study can be included in health disparity, practice and other social work courses, which can enrich the education and training of future professionals. The health disparity and the social work practice course instructors may use the screening tool to be refined developed for this study to inform culturally grounded social work practice. This study's findings may help create inform the design of

culturally and linguistically appropriate programs and to modifications of existing

programs to detect EM, minimize the risk factors, and strengthen the protective factors of

EM among Chinese American older adults. Interventions that are tailored to the special

needs of Chinese American elders and sensitive to Chinese cultural values (e.g. filial

piety) were are suggested later in this manuscript. Results were dispersed to service

professionals, including but not limited to Adult Protective Services (APS) staff and

social work practitioners.

This explorative research may guide future studies on EM in Chinese American

elders. Subsequent research may replicate this study in other places in the U.S. and in the

Greater China Region. In addition, future studies could extend this study by exploring the

barriers of reporting, patterns of help-seeking and designing interventions to meet the

cultural needs of Chinese American elders.

In the end, this study strives to uncover EM among Chinese Americans, a

significant social problem that has received little political attention. Policy advocates may

use the research results to urge legislators to fully appropriate the Elder Justice Act (EJA)

and support the draft of Elder Abuse Victims Act (Dong, 2012).

Chapter 2

REVIEW OF THE LITERATURE

The Prevalence of Elder Maltreatment and Associated Factors in Residential

Settings among the U.S. General Population

Early investigations about the prevalence of EM started in the late 1970s and increased in the late 1980s (Kosberg, 1988; Kosberg, Lowenstein, Garcia, & Biggs, 2003). The detected prevalence rate varies largely, from 1.3% to 27.5%, depending on the definition, measurement, methods, target population and sampling locations (Dong, Chang, Wong, Wong, & Simon, 2011; Cooper, Selwood, & Livingston, 2008; Fulmer, Guadagno, & Connolly, 2004). Cross-sectional studies have been conducted to detect the prevalence of EM in major metropolitan areas. For instance, a study conducted in Maryland suggested the prevalence rate was 4.1%, based on data collected from public records, social service agencies, and older adults themselves (Block & Sinnott, 1979). A study conducted in New Jersey suggested the prevalence rate was only 1%, based a random sample of older adults over age 60 (Gioglio & Blakemore, 1982). One random sample survey conducted in Boston with community-dwelling older adults (Pillemer & Finkelhor, 1988) reported that the rate was 3.2% among individuals over age 65.

Apart from these cross-sectional studies conducted in major American metropolitan areas, only one longitudinal study and two national studies have examined the prevalence of EM and its associated factors. A 9-year longitudinal study detected the prevalence of reported EM among community-dwelling older adults in Connecticut who were matched with EM protective service records (Lachs, Williams, O'Brien, Hurst & Horwitz, 1997). About 1.6% of elders experienced EM over the 9 years (n= 2,812). Underreporting of EM

cases to the protective services may explain the relatively low prevalence rate of reported EM in this longitudinal study when compared to other self-report surveys.

Two random sample nationwide surveys examined the prevalence of EM and its correlates (Acierno et al, 2010; Laumann, Leitsch & Waite, 2008). The first one was conducted among a representative probability sample of community-dwelling American older adults in the National Social Life, Health, and Aging Project (Laumann, Leitsch & Waite, 2008). The study found that the one-year prevalence rate was 9.0 % for verbal maltreatment, 0.2% for physical maltreatment and 3.5% for financial maltreatment. However, in this study, each form of EM was measured by only one item; therefore, the reliability of the measures was questionable. Acierno and colleagues (2010) conducted the other national survey among a representative sample of community-dwelling elders and strengthen the original research design by including five types of EM (neglect, emotional, physical, sexual, and financial maltreatment). The one-year prevalence rate for emotional, physical, sexual, financial maltreatment and neglect was 4.6%, 1.6%, 0.6%, 5.2% and 5.1%, respectively. Overall, slightly more than 10% of respondents experienced some kind of EM over the past year.

Risk Factors Associated with General EM in Residential Settings among the U.S. General Population

Individual risk factors of EM victims.

Age. Results are conflicting regarding the role of age in EM. Individuals with older age may be at higher risk of EM (e.g., Lachs, Williams, O'Brien, Hurst & Horwitz, 1997; Dong, Simon, M., & Evans, 2009; Kosberg, 1988) while the two national studies

indicated that younger age was a risk factor of EM. For instance, younger age was associated with more verbal maltreatment and financial maltreatment in a national study (Laumann, Leitsch & Waite, 2008). In the other nationwide study, older adults of younger age (age below 70) were more likely to experience emotional, physical, and financial maltreatment than the old-old group (Acierno, et al., 2010). The conflict may be attributed to the differences in EM definitions and research methods.

Gender. The association between elders' gender and EM also varied in previous literature. Being female may be a risk factor for EM (e.g., Dong, Simon, & Evans, 2009; Kosberg, 1988). Specifically, being female and in poorer physical health was associated with more verbal maltreatment (Laumann, Leitsch & Waite, 2008). However, the result of one random sample survey was inconsistent with previous findings and indicated that the risks of EM were much higher for elderly men (Pillemer, & Finkelhor, 1988). One possible mechanism is that men are more likely to remarry after their wives die, which suggest that men are more likely to live with others. Living with others is a risk factor of EM and is discussed in later paragraphs. Another explanation is that the level of abuse in elderly men was much less severe but more frequent than that of elderly women. When the threshold for EM is relatively low, the prevalence rate of EM would be higher in elderly men.

Marriage. Chances of EM may be higher for married elders (e.g., Pillemer, & Finkelhor, 1988) as spouses were the most frequent perpetrators. However, the effect of marital status may depend on the type of EM. One nationwide study suggested that the risks of financial maltreatment were much higher for elders without partners (Laumann,

Leitsch & Waite, 2008), while the risks of verbal maltreatment were not significantly different between elders with or without partners.

Health. Lower levels of overall physical and psychological health were associated with EM (Dong, Simon, M., & Evans, 2009; Laumann, Leitsch & Waite, 2008). Functional disability (e.g., Lachs, Williams, O'Brien, Hurst & Horwitz, 1997), poorer nutrition status (Dong, Simon, M., & Evans, 2009), depression (Dyer, Pavlik, Murphy, & Hyman, 2000), and substance abuse (Kosberg, 1988) of older adults were all risk factors for EM. Specifically, poorer physical health was associated with verbal maltreatment (Laumann, Leitsch & Waite, 2008) and depression was associated with self-neglect (Dyer, Pavlik, Murphy, & Hyman, 2000). Lower levels of health may increase the caregiving stress and reduce the help-seeking abilities which may further increase the risks of EM (Schiamberg, & Gans, 2000).

Particularly, elders with Alzheimer disease or related dementia were at higher risk of EM (e.g., Lachs, Williams, O'Brien, Hurst & Horwitz, 1997; Lachs, & Pillemer, 2004). One explanation is that the disruptive and provocative behaviors exhibited by elders with dementia may contribute to caregiving stress and result in negative caregiver behaviors. It was reported that almost 17% of individuals with dementia had aggressive behaviors and the most frequent forms include verbal assault and physical threat (Paveza, et al., 1992). It is also worth mentioning that caregivers may also be maltreated by their care recipients with dementia (Lachs, & Pillemer, 2004). In addition, in one case-control study, elders with dementia were a greater risk for self-neglect (Dyer, Pavlik, Murphy, & Hyman, 2000).

Individual risk factors of EM perpetrators.

There are far fewer studies of EM perpetrators than of EM victims because perpetrators are more difficult to reach (Choi & Mayer, 2000), yet studies completed to date indicate that the individual characteristics of perpetrators are also associated with EM. Mental illness (Wolf & Pillemer, 1989), depression, dementia, substance abuse (e.g., Kosberg, 1988; Hwalek, Neale, Goodrich & Quinn, 1996; Reay & Browne, 2001), and caregiving stress (Coyne, Reichman, & Berbig, 1993) are all risk factors related to engaging in EM. Caregivers with mild dementia are potential perpetrators of EM, due to the greater challenge their cognitive limitations pose in providing care and their potential for aggressive behaviors (Kosberg, 1988). Physical and emotional maltreatment are more prevalent when perpetrators have substance abuse problems, relative to neglect and financial maltreatment (Hwalek, Neale, Goodrich, & Quinn, 1996). Caregivers' substance abuse may increase the likelihood of financial maltreatment due to the need to purchase substances.

Interpersonal variables.

Dependency. Dependency is a risk factor proposed by the social exchange theory. Elders may depend on their caregivers physically, emotionally or financially, and lack the power resources (e.g. physical strength, money, social position) to maintain a balanced relationship (Dowd, 1975). Caregivers with the power advantage may abuse the power and manipulate the behaviors of the dependent elders (Burnight, & Mosqueda, 2011). However, the opposing fact that EM perpetrators often financially depend on the victims is also supported in some studies (e.g., Hwalek & Sengstock, 1986; Kurrle, Sadler, Lockwood & Cameron, 1997; Wolf, Strugnell & Godkin, 1982). In some extreme cases,

the care recipient with disability maltreated the older adult whom he or she depended on financially, emotionally and physically (Pillemer, 1985). In these cases, EM may result from the resentment over "the perceived powerlessness" of perpetrators (Pillemer, 2004).

Living situation. Risks of EM vary by household composition and are highest when the elder lives with both a spouse and at least one child; this second highest risk is living with one child, followed by living alone (Pillemer, & Finkelhor, 1988). This finding was confirmed in a nine-year longitudinal cohort study (Lachs, Williams, O'Brien, Hurst & Horwitz, 1997). Living with a large number of family members may lead to crowdedness and lack of privacy (Kosberg, & Nahmiash, 1996; Schiamberg, & Gans, 2000), increase the potential for family conflict due to more family contacts (Lachs, & Pillemer, 2004) and then possibilities of EM occurences. However, the living situation of financial maltreatment victims is an exception. The risks for financial maltreatment are much higher for elders who live alone (Lachs, & Pillemer, 2004; Laumann, Leitsch & Waite, 2008).

Social support/ social isolation. Social isolation or lack of social support are risk factors for EM. Lower levels of social support were associated with all the four forms of EM (caregivers' neglect, emotional, physical, sexual, and financial maltreatment) (Acieno, et al., 2010) and self-neglect (Dong, Simon, M., & Evans, 2009). Chances are that maltreated elders lack informal support from other family members and friends, and formal support from health professionals and agency staff. This isolation may aggravate family conflict and hide the caregivers' abusive behaviors (Lachs, & Pillemer, 2004). Moreover, social isolation of family caregivers is also a risk factor for EM due to the lack

of informal and formal support (e.g. respite care) in the caregiving process (Kosberg, &

Nahmiash, 1996; Schiamberg, & Gans, 2000).

Ethnicity /country of birth. In the nine-year longitudinal study on the reported EM

cases, non-whites were at higher risk of being maltreated in contrast to their white

counterparts (Lachs, Williams, O'Brien, Hurst & Horwitz, 1997). Risks of reported self-

neglect were higher for African Americans than for White Americans (Dong, Simon, M.,

& Evans, 2009). However, in the above two studies, the predictive effects of ethnicity

may have been overestimated because of reporting bias in the social welfare system. In

other words, ethnic minorities tend to be reported more than their white counterparts

(Lachs, et al., 1997). Although the majority of reported EM victims are from ethnic

minority groups, the ethnicity of reported cases may be not representative of the actual

population (Lachs et al., 1997).

In self-reported surveys, findings on the association between ethnicity and EM are

mixed. African Americans were more likely to experience financial maltreatment, but not

other types of EM (Lauman et al.,2008). Latino Americans were less likely to report EM

in any form compared to people from other ethnic backgrounds. This nationwide study

focused on the general American population and did not explore the cultural factors that

may influence EM in the ethnic minority groups. Consistent with the findings of Lauman

and colleagues (2008), another survey in Pittsburgh observed that the risks of financial

maltreatment were four times higher for African American elders compared to their non-

African counterparts after they reached age 60 (Beach, Schulz, Castle, & Rosen, 2010).

In addition, African Americans also had higher risk for emotional maltreatment, although

ethnic differences were much smaller in comparison to financial maltreatment.

Ethnicity/culture is commonly used as a risk factor in EM studies and, broadly speaking, in health studies. However, the cultural explanations are simplified by the term "ethnicity" or "culture", and rarely explored in previous EM studies. According to Hruschka (2009), "on the surface, culture appears to be a useful concept for population health, ready-made to answer the question, 'why does population A suffer from X more than population B'. But the popularity of a concept does not necessarily imply scientific utility…" (p. 238). Researchers seldom explore the pathways by which ethnicity or culture may influence EM or health disparities (Hruschka, 2009). Hence, the section below focuses on the EM studies within specific ethnic minority groups and cross-ethnic EM studies to seek for the cultural explanations of EM.

Elder Maltreatment in Minority American Population

Neglect is the most prevalent form of EM among Latino older adults (Lifespan, 2003); this is often unintentional and stems from the lack of knowledge of how to provide care by family caregivers. Parra-Cardona and colleagues (2007) developed a conceptual model to understand EM in Latino elders and summarized the risk factors of EM from the theoretical perspective of ecological theory. Individual risk factors of EM Latino victims (microsystem) include being female (Tran, 1997), married (Grossman & Lundy, 2003), physical, emotional and economic dependency (e.g. a disabled elder may depend on family members for feeding, finances, transportation and affiliation) (Montoya, 1997), lower levels of mental health (Lachs & Pillemer, 2006), being foreign-born (Vazquez & Rosa, 1999), and lack of English language skills (Montoya, 1997). Married elder Latina may have high tolerance for EM due to social expectations and economic dependencies (Vazquez & Rosa, 1999). Individual risk factors of EM Latino perpetrators

(microsystem) include caregiving stress (Angel et al., 2004), lower levels of mental health, past experiences of violence (Vazquez & Rosa, 1999), substance abuse (Vazquez & Rosa, 1999), financial difficulties (Lachs & Pillemer, 2006) and lower social support (Vazquez & Rosa, 1999).

Importantly, the acculturation differences between caregivers and care receivers is a risk factor of EM among Latino older adults (Parra-Cardona, Meyer, Schiamberg, & Post, 2007). Adult children's lack of recognition of Latino culture may increase the risk of neglect when dependent older adults value their Latino culture identity (Vazquez & Rosa, 1999). For example, adult children caregivers may be more acculturated to American value system that emphasizes independence and individualism while their aging parents stick to dependence and "strong sense of community" (Parra-Cardona, Meyer, Schiamberg, & Post, 2007, p. 458). Both parties may lack understanding of each other, which can result in the caregivers' neglect or elders' self-neglect.

One survey explored the risk factors of emotional and financial maltreatment of African American elders (Beach, Schulz, Castle, & Rosen, 2010). It suggests that older age, marriage and depression are risk factors of emotional maltreatment, while living with other family members (excluding spouse and children) and physical dependency (i.e. lower scores of IADL) are risk factors of financial maltreatment among African American elders.

EM studies in Asian American elders are relatively limited. A group of researchers focused on the tolerance of EM and help-seeking among Asian Americans. Perceptions of EM and help-seeking behaviors of African American, Anglo-Saxon American, and

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Korean American female older adults were compared and contrasted in a qualitative

study in Minnesota (Moon & Williams, 1993). African and Anglo-Saxon American

female elders were more likely to perceive given scenarios as EM relative to the Korean

American group. One example is that "the son threw a frying pan at the mother for the

third time after the mother burnt some food" (Moon, Tomita, & Jung-Kamei, 2002, p.

155). African and Anglo-Saxon American female elders viewed this scenario abusive, but

Korean Americans did not. However, Pablo and Braun (1998) replicated this study in

Honolulu and found a different result: Asian American elders (i.e. Filipino and Korean

American elders) have similar perceptions of scenarios to the Anglo-Saxon American

group. Better access to cultural-competent social services and the higher levels of

acculturation of Asian Americans in Honolulu compared to those in Midwestern U.S.

may explain the different research results. A study explored the tolerance for EM, victim

blaming and attitudes toward reporting among four Asian American ethnic groups

(American-born Chinese Americans, American-born Japanese Americans, first-

generation Korean Americans, and first-generation Taiwanese Americans) (Moon,

Tomita, & Jung-Kamei, 2002). The American-born Chinese and Japanese were more

likely to tolerate verbal maltreatment (e.g., yelling), but less likely to tolerate financial

maltreatment than the other two Asian groups. The American-born Chinese and Japanese

were less likely to blame victims, but tended to report EM to third parties (e.g. social

service agencies and the police). The first-generation Korean Americans had the greatest

tendency to tolerate financial maltreatment and blame of victims, and had the least

tendency to tolerate verbal abuse and report EM. The responses of first-generation

Korean Americans reflected the strong impact of filial piety on Korean family beliefs, but

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such impact may diminish among American-born Chinese and Japanese Americans whose traditional culture was challenged by western individualism.

To the best of this investigator's knowledge, only one group of researchers has exclusively focused on the EM experiences of Chinese Americans. Dong and his colleagues (2011) recruited 39 Chinese American older adults aged 60 and above in Chicago's Chinatown. Focus groups were conducted to explore perceptions of EM and help-seeking knowledge among Chinese American older adults. From their perspective, there were five forms of EM: caregiver neglect, psychological maltreatment, financial maltreatment, physical maltreatment, and abandonment. Caregiver neglect was the most prevalent form of EM and psychological maltreatment was the most serious form of EM. Chinese American older adults had little knowledge of places for help-seeking when they and their friends were maltreated. The primary source was to seek help from local community service centers. Recently, Dong (2013) conducted a comprehensive study on the health and well-being of Chinese elders living in Chicago communities (n= 3,018). According to the brief report of his Pine Study (Dong, 2013), about 24% of participants have experienced some form of EM, and the most prevalent forms of EM are psychological maltreatment (10%) and financial maltreatment (10%), followed by caregiver neglect (5%), physical maltreatment (1%) and sexual maltreatment (0.2%). The associations between family and cultural factors and EM have not yet been explored in the Pine Study. Associated factors of EM include older age, higher levels of education, fewer number of children, and lower levels of health (Dong, 2013).

The Prevalence of Elder Maltreatment and Associated Factors in Greater

China Region

EM has been understudied in Mainland China, Taiwan, Hong Kong and Macau. At present, no governmental departments in Mainland China are designated to accept reporting of EM and provide assistance to victims. The official definitions of EM and the mandatory reporting system do not exist (Dong, Simon, & Gorbien, 2007) as they do in the U.S. Only Dong and his colleagues explored the prevalence and associated factors of EM in Mainland China. In 2005, Dong and his colleagues conducted a study at a medical center in Nanjing. Patients with cognitive impairment or dementia were excluded in this study. The 13-item screening test they utilized was derived from Vulnerability to Abuse Screening Scale (VASS) (Scholfield &Mishra, 2003) and the Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST) (Hwalek & Sengstock, 1986). The prevalence rate of EM was 35% among 412 patients recruited (aged above 60). Caregiver neglect was the most prevalent form of EM, followed by financial maltreatment, psychological maltreatment, physical maltreatment, sexual maltreatment and abandonment. It was found that being female, lower education, lower income, less social support (Dong & Simon, 2008), depression (Dong, Simon, Odwazny, & Gorbien, 2008) and loneliness (Dong, Simon, Gorbien, Percak, & Golden, 2007) are all risk factors for EM among Chinese elders.

Wang (2006) developed the Psychological Elder Abuse Scale (PEAS) to test the emotional maltreatment and its correlates in Taiwan. Elders with functional disability and cognitive impairments have higher risks of emotional maltreatment. Yan and Tang (2001) used the revised Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman,

1996) to detect emotional (20.8%) and physical maltreatment (2%) among Hong Kong elders. Dependency on caregivers and poor mental health are risk factors for the two forms of EM. In another study, Yan and Tang (2003) surveyed Hong Kong residents on their likelihood of experiencing EM and found that 20% of participants were at risk for emotional maltreatment and only 2% were at risk for physical maltreatment, which is consistent with their previous findings (Yan & Tang, 2001). People living in Hong Kong with previous traumatic experiences in the childhood, negative attitudes toward elders and, surprisingly, stronger traditional beliefs (i.e. traditionalism) have higher proclivity to perpetrate EM. Their later study suggests that memory impairment, visual disabilities, greater dependence of elders and less dependence of caregivers are possible risk factors of emotional maltreatment, while the latter two factors are also possible risk factors of physical maltreatment (Yan & Tang, 2004).

A Summary of Socio-cultural Factors Associated with EM

EM studies within specific ethnic groups suggest several social-cultural factors associated with EM. Being foreign-born (Vazquez & Rosa, 1999), lack of English language skills (Montoya, 1997), different acculturation levels between caregivers and care recipients (Vazquez & Rosa, 1999; Parra-Cardona, Meyer, Schiamberg, & Post, 2007) are risk factors of EM among Latino elders.

The socio-cultural conceptual model built to understand EM among Latino Americans indicates that the small social network size may increase the risks of EM, due to the lack of available resources of elders. The risks would be much higher if elders have transportation and language problems and are heavily depend on others to survive

(Beyene et al., 2002). Adherence to Latino culture (e.g., familismo) may be a risk factor of EM when elders are reluctant to use formal services and only depend on family support (Parra-Cardona, Meyer, Schiamberg, & Post, 2007). For this reason, the association between EM and cultural beliefs on family support were examined in the present study.

The review of the limited literature on EM among Chinese American elders indicates that stronger traditional Chinese beliefs or weaker modern beliefs, and less social support are risk factors for EM (Dong & Simon, 2008; Yan & Tang, 2003). Particularly, gender moderates the relationship between social support and EM. For Chinese men, the protective effects of social support were much stronger compared to Chinese women (Dong, Beck, & Simon, 2010). However, the associations between EM and elders' perceptions of family support and their adherence to traditional Chinese culture were not investigated. The present study includes all above socio-cultural variables (i.e. birth place, English language skills, social support, and adherence to the traditional Chinese culture), and examined their association with EM among Chinese American elders.

A Review of Instruments Used to Screen EM

Some scholars argue that self-report of EM is not reliable, considering that victims may choose not to report EM because of individual and family reasons or because they are hindered in reporting due to cognitive impairment (Fulmer, Guadagno, & Connolly, 2004). The responsibility of identifying and reporting EM rests mostly on third-party observers, including social service professionals and police personnel, with the aid of

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culture-sensitive screening instruments. Multiple interviewer-administered instruments have been developed to screen EM in response to the needs of different agencies.

Johnson (1981) developed a subjective-objective assessment tool to interview older adults and their family caregivers separately. This assessment tool includes three parts: 1) subjective interview, 2) objective observation, and 3) assessment EM types (i.e. neglect, financial, physical and emotional maltreatment). The subjective interview asks about family life, social support, and incidences of different forms of abuse evidence. The objective observation includes the observation of older adults (e.g., the bruises on their arms), caregivers (e.g., their physical and mental abilities) and their interaction (e.g., fears shown by the older adults). The strength of this assessment tool is that it assesses factors contributing to neglect and the degree of physical abuse, which may direct future social work interventions specific to the case. However, the subjectivity in this assessment tool may make it difficult to identify EM. Older adults with cognitive impairment may wrongly report instances of abuse due to imagination and misperception. Moreover, the objective observations of interviewers may be contaminated by their own subjectivity (Fulmer, Guadagno, & Connolly, 2004).

Ferguson and Beck (1983) developed Health, Attitudes towards Aging, Living arrangements, and Finances (H.A.L.F.) to assess whether older adults are maltreated by their adult children. Questions incorporate risk factors for care receivers and caregivers, family attitudes toward aging, living arrangements, financial maltreatment, and other related variables. H.A.L.F. has been not been used in the social science publications since 1983 (Fulmer, Guadagno, & Connolly, 2004).

Fulmer and Wetle (1986) developed the Elder Assessment Instrument (EAI) for all clinical settings to assess possible indicators of neglect, financial maltreatment, abandonment, etc. Interviewers are asked to rate whether there are evidences on EM indicators, such as "reports of demands for goods in exchange for services" (from *No evidence* to *Definite evidence*). There is no need to calculate sum scores of EAI and interpret them quantitatively because any positive evidence can help detect EM cases. EAI has been used to detect neglect during visits to the emergency department and its feasibility has been confirmed in this context (Fulmer, Paveza, Abraham, & Fairchild, 2000).

Indicators of Abuse (IOA) was developed by Reis and Nahmiash (1998) to detect EM in home settings. Interviewers assess caregiver indicators (e.g. substance abuse problems) and care receiver indicators (cognitive impairment). The interview lasts for 2-3 hours on average and requires experienced and skillful interviewers. "It appears to have great potential as a research instrument but is too lengthy to be used in most medical, social service, APS, or ombudsman practices" (Fulmer, Guadagno, & Connolly, 2004, p.300).

However, some scholars question the quality of third-party administered interviews and prefer self-report of older adults. Comijs and his colleagues (1998) have analyzed audiotapes of interviews with EM victims conducted by experienced interviewers and found that 4.2% of questions were skipped by interviewers, and 4.4% were inadequately answered, which suggested the deficiencies of the interview process.

Hwalek and Sengstock (1986) developed a 15-item Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST) to screen EM with the self-report of older adults. One item used to detect physical maltreatment asks "Has anyone close to you tried to harm you or hit you recently?" Neale and colleagues (1991) examined the validity of H-S/EAST, including its content, concurrent and construct validity, and provided evidence for its appropriateness for both Anglo-Saxon and African Americans in community-based service agencies. By conducting discriminant function analyses, a 6-item H-S/EAST was suggested. A modified version was used with Chinese elderly samples (Dong, Simon, & Gorbien, 2007). In addition to using questions in the H-S/EAST, Dong and colleagues' study (2007) included items related to sexual maltreatment and abandonment, such as "Have you had any non-consenting sexual contact of any kind?" and "Has any family member ever abandoned you in a clinic, hospital, or any other public place?" Schofield and Mishra (2003) also argued that older adults might be more likely to hide their EM experiences in front of high-status interviewers, rather than in a safe self-report questionnaire. Therefore, they developed a 12-item Vulnerability to Abuse Screening Scale (VASS) based on the longitudinal study on women's health in Australia. VASS has four factors: vulnerability, dependence, dejection, and coercion.

The Conflict Tactics Scale (CTS) or the revised Conflict Tactics Scales (CTS2) were originally designed to measure conflicts between partners (Straus, 1979; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), but now are frequently used in EM studies (Fulmer, Guadagno, & Connolly, 2004; Sooryanarayana, Choo, & Hairi, 2013). CTS and CTS2 are used to detect emotional and physical maltreatment, but do not screen for financial, sexual maltreatment, or neglect (Fulmer, Guadagno, & Connolly, 2004).

The above scales are designed to detect EM among the general population, so that they may be not applicable to a specific ethnic minority group. However, the preexisting scales provide a pool of items from which appropriate question could be selected to measure various types of EM in Chinese American elders. In addition, culturally and linguistically appropriate items were explored in this study.

Strengths and Limitations of Previous Literature

The EM studies on the U.S. general population, particularly the two rigorous nation-wide studies on EM (Acierno et al., 2010; Laumann, Leitsch & Waite, 2008), shed light on the general trend in the U.S., and suggest various risk factors at the individual and interpersonal levels. However, EM studies centering on a specific ethnic group are still needed to "get closer to the causative relationship" (Kosberg, Lowenstein, Garcia, & Biggs, 2003, p. 83) within a culture. EM among Latino and African Americans has received increasingly attention. Studies on these two ethnic minority groups suggest several socio-cultural risk factors that were open to testing in this study, such as acculturation and social support.

Studies on EM in Chinese Americans are still at the initial stage. Only two publications (Dong et al., 2011; Dong, 2013) have exclusively focused on EM among Chinese Americans, specifically those living in Chicago, the second oldest settlement with 42,060 individuals (U.S. Census Bureau, 2010). However, studies in cities with Chinatowns, or with a large concentration of Chinese immigrants, may be not applicable to other areas in the U.S., considering the different levels of ethnic social support and the availability of formal services in smaller or less concentrated ethnic communities. Thus, it is necessary to conduct additional study in areas where there is a smaller number of

Chinese Americans and no organized ethnic community. The Phoenix metropolitan area is such a community, with only 7,270 Chinese Americans (excluding Taiwanese) (U.S. Census Bureau, 2010).

Besides, previous EM surveys among Chinese elders or Chinese American elders used revised CTS (e.g. Dong, 2013; Dong, Simon, & Gorbien, 2007; Yan & Tang, 2001) to assess the EM prevalence or used Activities of Daily Living (ADL) (Katz et al., 1963) and Instrumental Activities of Daily Living (IADL) (Lawton & Brody, 1969) to assess "elder neglect" (i.e. unmet daily living needs). The CTS was originally designed to detect intimate partner violence among general Americans (Straus, 1979; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) and its validity to detect EM among Chinese or Chinese American elders need to be confirmed. ADL/IADL scales are often used to measure physical functioning of older adults and may capture whether daily functioning needs of elders are neglected. But they may not be a valid measure of elder neglect that covers both unmet physical and emotional needs. Therefore, an explorative study is urgently needed to understand Chinese American elders' perceptions of EM and develop a linguistically and culturally appropriate EM scale for this population.

Previous EM surveys among Chinese or Chinese American elders found the associations between EM and characteristics of elders, such as older age, being female, lower income, lower education, lower levels of physical and mental health, and less social support (e.g. Dong, 2013; Dong & Simon, 2008; Dong, Simon, Odwazny, & Gorbien, 2008; Wang, 2006; Yan & Tang, 2001). However, researchers did not probe into the effects of family support on EM and cultural explanations of EM, except one study

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assessing the influence of traditionalism on Hong Kong people's proclivity to perpetrate EM (Yan & Tang, 2003). In other words, Chinese people with stronger traditional beliefs may have higher tendency to perpetrate EM. This seems counterintuitive and needs further investigation to understand potential mechanisms of influence. The association between EM and elders' traditionalism also waited to be examined. In this study, cultural variables (i.e. traditionalism and acculturation) were used to measure elders' assimilation levels to the U.S. value system and adherence to the Chinese traditional culture; family variables (i.e. family support network and family cohesion) were used to measure the availability and importance family support among Chinese American elders.

This study explored the prevalence of EM among Chinese American elders living in Phoenix communities, and identified the possible risk factors in light of existing literature. Risk factors were integrated in the ecological model; family support variables and cultural variables were emphasized.

Chapter 3

THEORY

Ecological theory focuses on interpersonal and socio-cultural variables and

contexts, and provides a theoretical framework for this study.

Ecological theory emphasizes the interplay between individuals and the environment, and

considers the ecological environment as "a nested arrangement of structures, each

contained within the next" (Bronfenbrenner, 1977, p. 514). This theory was first

introduced in the study of intimate partner violence to examine the potential causes of

abuse in the microsystem, mesosystem, exosystem and the macrosystem. A microsystem

refers to the settings that individuals have direct contact with (e.g., family caregivers); a

mesosystem is the interrelations of the microsystems (e.g. the interaction between family

caregivers and health professionals); an exosystem refers to the specific social structures

that indirectly cast their influence on the mesosystems (e.g. local, state and federal

governments); and a macrosystem refers to the unspecific social and cultural factors that

impact individuals. Kosberg and Nahmiash (1996) argued that EM studies should go

beyond the traditional foci on individual characteristics of victims and perpetrators, and

first provided a conceptual model to analyze EM within a broader socio-cultural context,

considering that no single risk factor could comprehensively explain EM.

Schiamberg and Gans (2000) followed in Kosberg and Nahmisash's path and

introduced ecological theory into the study of EM. Different from the original ecological

theory that focuses on one individual in his or her environment, the model they developed

focuses on the parent-adult child dyad (hereinafter referred to as EM model). Risk factors

are integrated in the four nested ecological systems to explain EM in the family setting as

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it relates to influences of the micro-, meso-, exo-, and macro- systems (Schiamberg & Gans, 2000). In the context of EM study, microsystem refers to the settings that elders directly connect with. For example, family members, close friends and service professionals are parts of the microsystem. Mesosystem refers to the interactions among microsystems, such as the relationship between elders and adult children. Exosystems indirectly affect elders. For example, the poor health of family caregivers may increase the caregiving burden, and then the possibilities of EM occurrence. Macrosystem refers to "larger societal ideologies and cultural values that have an impact on elders and their families" (Parra-Cardona, Meyer, Schiamberg, & Post, 2007, p. 453). In the nested ecological system, the interplay among risk/protective factors may influence EM; therefore, interventions targeting on one single associated factor or one single actor (victims or perpetrators) are unlikely to address the EM problem successfully.

Parra-Cardona and colleagues (2007) further applied the ecological theory to study Latino American elders and suggest a social-cultural theoretical model to understand EM among this minority group (hereinafter referred to as Latino EM model, see Figure 1). Elder victims, family perpetrators and families as a whole (nuclear and extended family) are the three core parts in the microsystem to understand EM with Latino families. Families are listed as a study unit in the microsystem because "familismo" or importance of family cohesion and obligation is highly valued in Latino culture (Falicov, 1998). Latino EM model summarized individual-level risk factors of Latino elders and perpetrators (microsystem) which are commonly studied in previous EM research and added risk factors of Latino families, such as "family distrust toward institutions" in the microsystem (Parra-Cardona, et al., 2007, p. 457). In the meso-/exo- system, the

theoretical model indicated that lack of social support (institutional support and family support) and lack of legal status are possible risk factors of EM among Latino older adults. Latino immigrant elders may lack access to formal services and heavily depend on the informal support from the nuclear and extended families. Dependency on family members may be aggravated when Latino elders have transportation and language barriers (Beyene et al., 2002). Elders' dependency may add to caregiving stress and burden, and then increase the possibilities of EM. Latino cultural variables are also indicated in the macrosystem. Protective cultural factors of EM include "familismo" (emphasis of family cohesion) and "colectivismo" (sense of community); risk cultural factors of EM include "negative machismo" (male dominance and women's submission) (Nerenberg, 2002).

The comprehensiveness of the ecological theory is helpful for identifying all possible factors related to EM. It helps go beyond the traditional focus on individual risk factors and extends to risk factors in the meso and macro level. However, the ecological theory "does not constitute any particular set of predictions to test" (Burnight, & Mosqueda, 2011, p. 17). In empirical studies, it is more feasible to focus on one or two dimensions within the ecological systems and explore the interactions among factors involved in this sub-model. Moreover, focusing on elders may be easier to operate because perpetrators are more difficult to reach (Choi & Mayer, 2000).

Cultural Identity Categories

	Bicultural
Country of Origin Oriented	
U.S. Oriented	Moratorium

Macrosystem USA

Protective Factors
- Freedom of expression and association
- Opportunities to achieve economic stability
- Stronger public services and disability systems (in comparison with many Latin American countries)

Risk Factors
- Historical segregation and anti-immigration climate
- Health care barriers, discrimination, and exclusion
- Lack of recognition of Latino cultural values and processes of cultural identity formation

Exosystem

Aging Parent-Mesosystem Caregiver-Exosystem
- Lack of cultural group of reference
- Lack of legal immigrant status
- Limited access to institutional support

Caregiver-Mesosystem/ Aging Parent-Exosystem
- Lack of financial stability
- Lack of legal immigrant status
- Lack of legal work permit
- Limited social support network
- Limited access to institutional support

Microsystem

Latino Elder Victim
- Gender and marital status
- Dependency
- Mental health
- Country of origin and language

Abuser Relative
- Stress & burden
- Psychological problems
- Alcohol & substance abuse
- Economic hardship
- Social isolation

Nuclear & Extended Family
- Within-family cultural identity differences
- Family distrust toward institutions
- History of violence

Mesosystem
(Interaction: abuser-victim-nuclear & extended family)
- Dependency and social support
- Stress and active neglect

Macrosystem (Country of Origin—1st Generation)

Protective Factors
- Cultural values and traditions that promote sense of community
- Language and established social support networks
- Positive machismo and nobleza

Risk Factors
- Potential repressive governments
- Potential economic instability
- Potential deficiencies in public services and disability systems
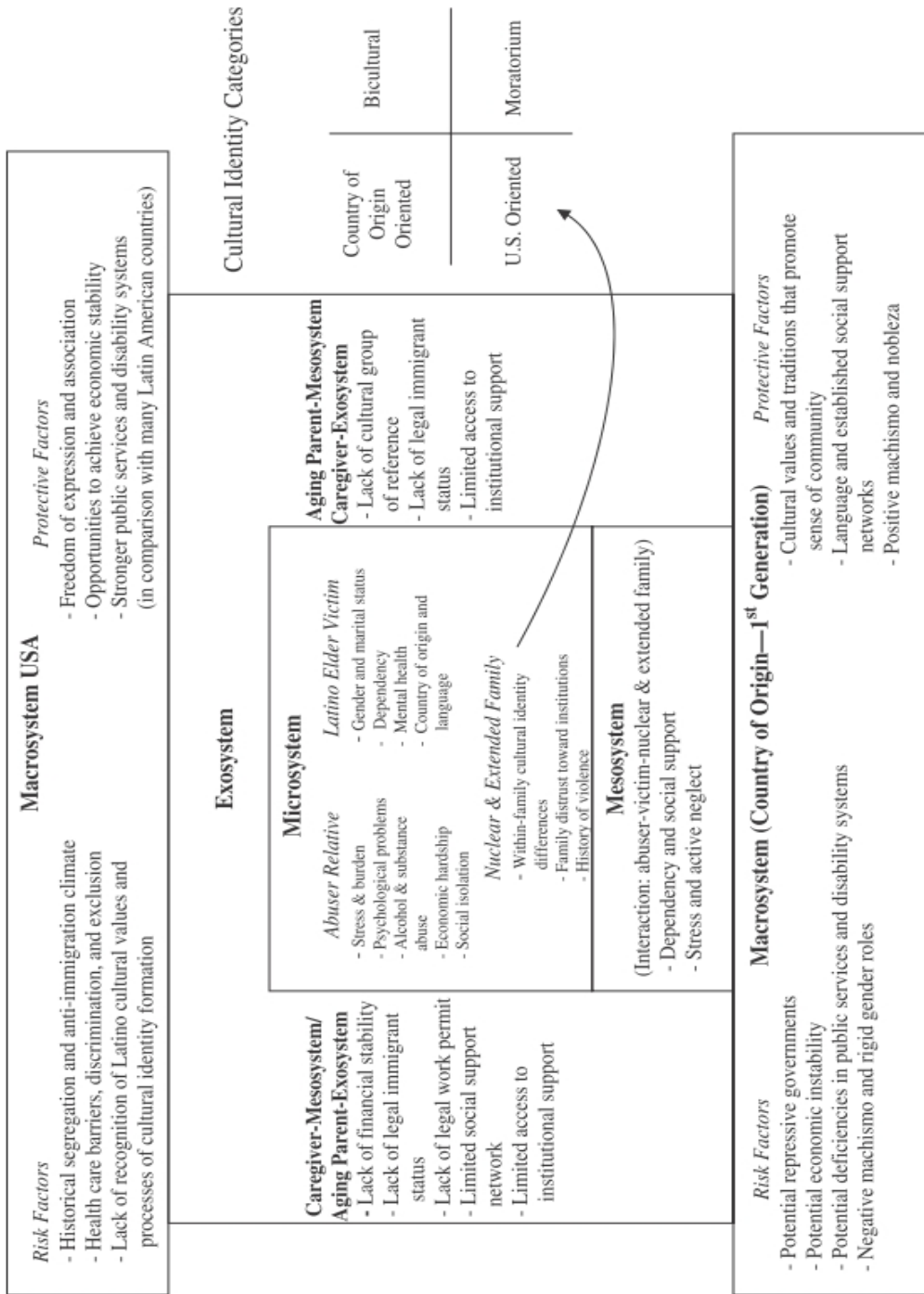- Negative machismo and rigid gender roles

Figure 1. An Ecological Model of EM among Latino American Elders (Parra-Cardona, Meyer, Schiamberg & Post, 2007, p. 454)

Under the guidance of ecological theory, the Latino EM model informed this study, considering that the two ethnic minority groups may have similar immigration experiences and cultural values. Immigration brings cultural conflicts to both Latino and Chinese immigrant families, such as acculturated stress and intergenerational cultural differences (Mui, & Kang, 2006; Lim, Yeh, Liang, Lau & McCabe, 2008). Although Latino and Chinese Americans have enormous differences in immigration histories and socioeconomic status, both groups values family cohesion and "a sense of obligation to care for elders in multigenerational households" (Guo, Li, Liu, & Sun, 2015, p. 214). Familism in Latino culture and filial piety in Chinese culture are similar cultural beliefs emphasizing family cohesion and family obligation. Familism is the central sociocultural norms in Latino society (Bermudez, Kirkpatrick, Hecker, & Torres-Robles, 2010) and filial piety is the key part of Chinese Confucian teaching (Yee, Debaryshe, Yuen, Kim, & McCubbin, 2007). Moreover, the two cultural groups also heavily rely on family support rather than the institutional support because of the cultural emphasis on interdependence within families and lack of access to formal services, particularly when the immigrant elder lacks transportation and English competency (Goebert, 2009; Guo et al., 2015). Taking into account the above similarities between the two cultural groups, the Latino conceptual model may apply to Chinese Americans with minor revisions.

Research Questions and Hypotheses

Based on the literature review of the ecological theory, applied models and empirical studies, the investigator developed two research questions under each aim: 1) What is the prevalence of EM (general EM, elder abuse and elder neglect) perpetrated by family members among Chinese American elders?; 2) What is the direction and strength

of associations among risk/protective factors (particularly social-cultural factors) and EM

(general EM, elder abuse and neglect)?
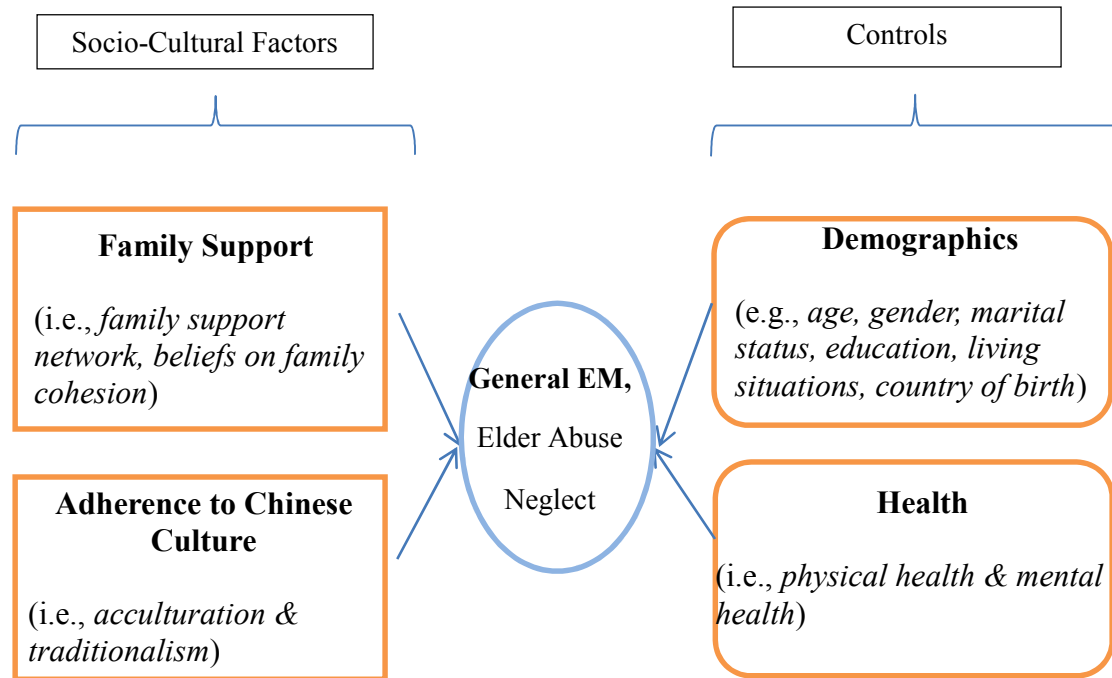
Figure 2. A Socio-Cultural Model to Understand EM among Chinese American Elders

With limited time and budget, this study understands EM and its correlates through

the perspective of Chinese American elders (see Figure 2), rather than the victim-

perpetrator dyad. The investigator selected family support variables in the meso-/exo-

system and cultural variables in the macrosystem to understand EM phenomenon, in the

mean while controlling the effects of individual level risk factors of elders (e.g. gender

and age). Family support was selected because "Chinese culture traditionally defines

one's role and responsibility in relation to others" (Dong, Chang, Wong, & Simon, 2012,

p. 3). Particularly, the relationship with children, spouses and siblings comprise three of

the "Five Cardinal Relationship" (wu lun) for Chinese people. "Five Cardinal

Relationship" in Confucian teaching mandates one's role in social life and bind people

together. When the Latino EM model indicates the influence of "familismo" "colectivismo" and "machismo" on EM, this study used two scales to assess elders' adherence to Chinese culture (including filial piety and gender role) and assimilation to American culture (including language preference, social activities and social customs). Moreover, this study strengthened the Latino EM model by measuring family support from two aspects (perceived availability and importance). Risk/protective factors associated with EM perpetrators and Chinese families (e.g. family attitudes towards authorities) could be included in future research.

The Latino EM model indicated the directions of associations between socio-cultural factors and EM: informal support and cultural beliefs that promote sense of family or community (e.g. "familismo" and "colectivismo" in Latino culture) are protective factors of EM. Similarly, family support and Chinese cultural beliefs promoting sense of family (e.g. "filial piety" and interdependence) are possible protective factors of EM among Chinese Americans. The size of the family support network may affect the availability of informal resources, and therefore contribute to elders' dependency on family members. However, the availability of an informal network does not necessarily mean elders highly value the family support. Its importance relies on the level of cohesion present in the family system. Acculturation assesses elders' assimilation levels to the U.S. value system, while traditionalism assesses elders' adherence to the Chinese traditional culture. More traditional Chinese elders may have higher levels of interdependence and a sense of obligations to support elders with the families, which may put Chinese elders at lower risks of EM. More acculturated Chinese elders may highly value independence (versus interdependence) and self-care in family life, which may

increase the risk of EM when elders are not physically and emotionally competent. This study considers EM and its associates through both cultural and legal lenses among Chinese American elders. The prevalence rates of general EM, financial, emotional, physical maltreatment, and elder neglect were examined; the risk factors for general EM, elder abuse (i.e. financial, emotional, and physical maltreatment) and elder neglect were tested. However, the risk factors of each type of elder abuse in Chinese elders were not tested because of the insufficient power to detect such associations in a small sample study.

Hypotheses were developed to test the associations between socio-cultural factors and EM (general EM, elder abuse and elder neglect) under research question 2.

Hypothesis 1 (a): Chinese elders' perceived importance of family support (i.e. more emphasis on family cohesion) will be negatively associated with general EM, elder abuse and elder neglect.

Hypothesis 1 (b): Chinese elders' perceived availability of family support (i.e. larger family support network) will be negatively associated with general EM, elder abuse and elder neglect.

Hypothesis 2 (a): Chinese elders' adherence to Chinese culture (i.e. higher levels of traditionalism) will be negatively associated with general EM, elder abuse and elder neglect.

Hypothesis 2 (b): Chinese elders' assimilation to American culture (i.e. higher

levels of acculturation) will be positively associated with general EM, elder abuse and

elder neglect.

Hypothesis 1 (a) and Hypothesis 1 (b) tested the protective effects of family support

on EM while Hypothesis 2 (a) and Hypothesis 2 (b) tested the protective effects of

Chinese traditional culture (mainly regarding filial piety) on EM. Research methods used

to answer research questions were discussed in Chapter 4.

Chapter 4

METHODS

A larger quantitative component building on a small qualitative component was used to investigate the prevalence and associated factors of EM in Chinese American elders. Four focus groups were conducted first to inform the development of the primary data collection instrument, a participant-administered survey.

The rationales for conducting the quantitative study are listed below. First, using a quantitative research method can detect the prevalence of EM and specify the direction and strength of associations among risk/protective factors (particularly cultural factors) and EM (research question 1 and 2). Although qualitative research methods can explore associations, "these methods have lacked the capacity to reliably assess the strength of association among key categories or constructs, as can be accomplished with quantitative methods such as correlational analyses" (Castro, Kellison, Boyd, & Kopak, 2010, p. 2). Second, using a quantitative method supports examination of the effect of socio-cultural variables on EM, while controlling for the effect of other variables.

Qualitative Component (Phase I)

In Phase I, four focus groups (three Mandarin-speaking groups and one Cantonese-speaking group) were conducted to ensure subsequent survey questions were culturally and linguistically appropriate. Focus groups fit this study, considering that the rich and detailed reactions to example EM situations were explored among participants who have similarities in ethnicity, culture and age range. During Phase I, pseudo names were used throughout the focus group discussions and a pseudo name card was put on the table in

front of each participant. Draft EM assessment questions were derived from existing scales, such as CTS and CTS 2 (Straus, 1979; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), Acierno's nationwide survey (2010) and Dong's EM scales (e.g. Dong, 2013; Dong, Simon, & Gorbien, 2007) (see Appendix C) were read to participants to ensure appropriate wording and all possible indicators of EM included. The focus groups were conducted only with Chinese-speaking participants. Although there are Chinese elders that prefer English as their main language, they are not easily identifiable as they live throughout the metropolitan area and do not actively participate of Chinese community events.

Potential participants may feel shameful to disclose their real life experiences of EM. To facilitate focus group discussions, pseudo vignettes related to physical, emotional, financial maltreatment and neglect were presented. Vignettes are particularly appropriate in the study of difficult topics because they may "desensitize" the topic, distance participants and "avoid potential harm to participants from their co-operation" (Hughes, & Huby, 2002, p. 384).

Qualitative Data Sampling and Participants

The "maximum variation sampling" strategy were utilized to "capture heterogeneity" across Chinese elder (Padgett, 2008). In this study, three Mandarin-speaking focus groups and one Cantonese-speaking focus group were conducted. Each focus group was comprised of 6 Chinese American elders. In each focus group, gender differences and educational variability among the focus group participants were ensured. To make the sample more representative, the investigator consulted a previous large sample survey in Phoenix (n=385) (Sun, Gao, & Coon, 2013). About 65% of their participants were

female; one third were college graduate or above; one third have fewer than 12 years of education. Similarly, each focus group (n=6) in this study at least had 3 old women, 1-2 older adults with fewer than 12 years of education, 1-2 older adults with high school education or some college, and 1-2 college graduates (or higher levels of education).

Qualitative Data Collection

Focus group participants (six people per group) were recruited through the author's networks. The investigators' volunteering experiences in Memorial Tower, a senior apartment mainly catering to Chinese American elders, help build trust and connections with the manager and Chinese elder residents. Although EM is a sensitive topic in Chinese culture, focus groups have been successfully used to explore the perceptions of EM among Chinese elders in Chicago (Dong, et al., 2011). Participants were asked to share their perspectives of EM and its associated contributory factors, and provide feedback on the preliminary questionnaire (see Appendix A). Their responses to the items helped refine the questionnaire, particularly the EM assessment tool. To stimulate the focus group discussions, four brief pseudo vignettes related to physical, emotional, financial maltreatment and neglect (see Appendix B) were presented to Chinese American elders so that they may feel free to share their reflections on the four pseudo cases. The interviewer reminded them of the distinction between culturally inappropriate behaviors toward elders and abusive behaviors, and asked them whether items in the EM assessment tool are serious enough to be labelled as abusive. Each focus group took about one hour and a half to complete. All focus groups were conducted in two senior apartments mainly catering to Chinese elders in December, 2014. All focus

group participants received tangible incentives (e.g. shampoo, bar soaps) as a token of appreciation for their contribution to the study.

Qualitative Data Analysis

Focus group interviews were tape-recorded and transcribed for data analysis. Directed content analyses were used to explore the definition of EM, types of EM and EM indicators in Chinese American elders. Directed content analysis is different from the conventional content analysis in that the initial coding categories are not directly from the raw data, but from the previous theories or studies. Directed content analysis is appropriate when "existing theory or prior research exists about a phenomenon that is incomplete or would benefit from further description" (Hsieh, & Shannon, 2005, p. 1281). Using preexisting theories and empirical studies in the field of EM, the investigator first identified higher-order themes, including emotional, physical, financial maltreatment and elder neglect in the transcript (Hickey & Kipping, 1996). Under each higher-order theme (i.e. a specific type of EM), the investigator summarized all possible lower-order codes/ EM indicators. The indicator was either from the drafted EM assessment tool that participants somewhat agreed with or a new indicator they added. Indicators that cannot be coded in above themes/EM types were "analyzed later to determine if they represent a new category or a subcategory" (Hsieh, & Shannon, 2005, p. 1282). Next, transcripts were re-read carefully to review the text that appeared to discuss an EM indicator, in order to determine its appropriateness. Linguistic or culturally inappropriate EM indicators were deleted or modified accordingly. The most frequently cited indicators in their EM discussions were added to the assessment tool that was used in later surveys. The whole instrumentation process are discussed in detail in Chapter 5.

Quantitative Component (Phase II)

Draft assessment tool of EM was revised with the feedback from the four focus groups to ensure their cultural and linguistic appropriateness. The most frequently mentioned indicators and risk factors of EM occurrence were incorporated into the questionnaire. Revised questionnaires were reviewed by the three dissertation committee members. Surveys were pilot-tested with six Chinese elders before the instrument was finalized. Finalized questionnaires were distributed to Chinese older adults in Phoenix to screen the prevalence of EM and to identify the associated factors (see Figure 3). Generally, surveys were completed by older adults themselves, and were not administered by interviewers in order to keep a safe environment for the disclosure of EM experiences. However, interviewers read the surveys to participants who had limited literacy or vision problems. Interviews were conducted in English or Chinese (Mandarin or Cantonese), depending on the participant's preference
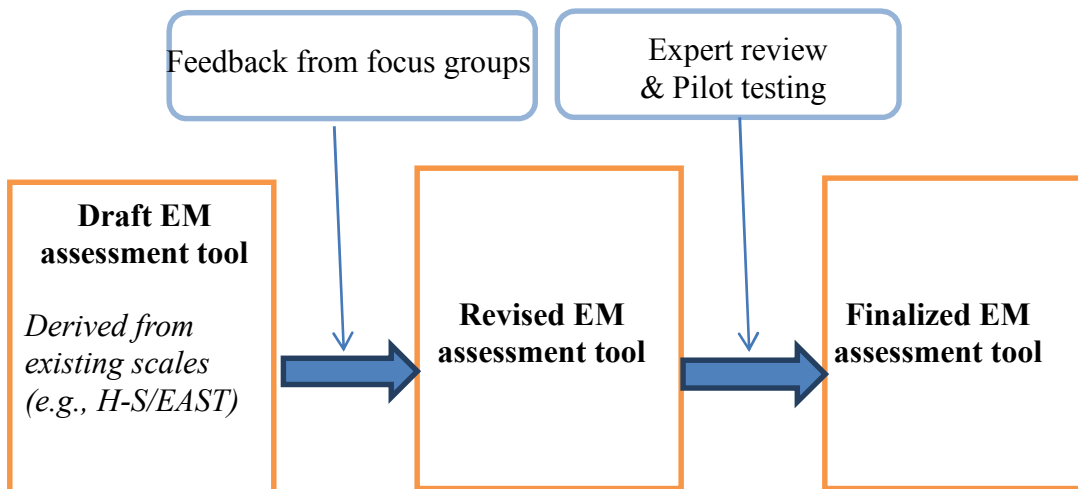
Figure 3. Development of EM Assessment Tool

Quantitative Data Sampling and Participants

Without a sampling frame, the survey study used purposive sampling to recruit Chinese American elders. For a population that is difficult to reach, purposive sampling is appropriate (Tongco, 2007). To be eligible for this study, participants were required to be age 60 or older; self-identify as a Chinese American; be able to communicate either in English, Mandarin or Cantonese; and live in a residential setting in the Phoenix metropolitan area, which includes the city of Phoenix and seven of the largest surrounding cities: Tempe, Scottsdale, Chandler, Glendale, Mesa, Peoria, and Gilbert, which are within about one hour's drive. In this study, the concept "ethnicity" is based on the elders' self-identification, as cultural and historical background of individuals may attribute to one's "ethnicity" (Kosberg, Lowenstein, Garcia, & Biggs, 2003). The sample size for this study is 266. According to the commonly used rule of thumb, at least 10 "events" (i.e., detected EM cases) are needed for each independent variable in the logistic regression for sufficient power, which is suggested to be very conservative (Vittinghoff, & McCulloch, 2007). In this study, it was estimated that about eight independent variables would be entered into the logistic regression model and the prevalent rates of general EM among Chinese elders would be around 30% (from 24% to 35%), as suggested by previous literature (Dong, Simon, & Gorbien, 2007; Dong, 2013). A sample size of 266 would be large enough to detect statistically significant differences in this study.

Quantitative Data Collection

Participants were recruited from a variety of places, including but not limited to the Phoenix Chinese Senior Center, senior apartments, diverse religious sites, community

events and social clubs for seniors. Recruitment flyers were distributed to attract self-referrals.

The questionnaire was translated into Chinese using a translation /back translation process to ensure the questions had the same meaning in different languages. The investigator ensured that all participants in the focus group and the survey study read the informed consent letter in Chinese/English approved by Arizona State University's Institutional Review Board (IRB). The interviewer did a pilot study first (n=6) and then collected 266 questionnaires from December, 2014 to April, 2015. All interviews were conducted in either English or Chinese at participants' homes, the Chinese Senior Center or other preferred locations. Survey questionnaires were anonymous. Each survey took about 35 minutes to complete. All survey participants received tangible incentives (e.g. shampoo, bar soaps) as a token of appreciation for their contribution to the study.

Measurement in the Survey

EM assessment tool.

The assessment tool include four subscales that target each type of EM (i.e. physical, emotional, financial maltreatment and elder neglect). Items were derived from the mostly widely used CTS2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996), H-S/EAST (Hwalek & Sengstock, 1986), the scale validated in the national study (Acierno et al, 2010) and the scale validated in Dong's studies (e.g. Dong, 2013; Dong, Simon, & Gorbien, 2007). Items selected from the above scales were first validated in the focus group discussions and then piloted on other six Chinese American elders. Financial maltreatment was measured by questions developed from focus group discussions, such as "Have any of your family members refused to return properties he/she helped take care

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of?", from H-S/EAST, such as "Has anyone taken things that belong to you without your OK?" Items used to assess emotional maltreatment were derived from the scale validated by Acierno and colleagues (2010) and CTS2, the most widely used scale in the field of intimate partner violence and EM as well (Straus, & Douglas, 2004; Sooryanarayana, Choo, & Hairi, 2013). One example is that "Have any of your family members threatened to hit or throw something at you?" Items used to assess physical maltreatment were derived from the scale validated by Acierno and his colleagues (2010), such as "Have any of your family members tried to restrain you by tying you up, or locking you in your room or house?" Items used to measure elder neglect were derived from focus group discussions, such as "Have any of your family members refused to help you pay medical bills, rent or food when you were in need, even when requested by you?" and from the scale validated in Nanjing, such as "Has any family member ever abandoned you in a clinic, hospital, or any other public place". Above items used to measure elder neglect were developed under the influence of Chinese traditional beliefs (e.g. filial piety) and can capture EM cases that are culturally distinctive. Survey participants were asked whether these situations happened (yes/no questions) in the past year. EM has occurred when participants respond "yes" to one or more items of a subscale. The EM assessment tool was scored dichotomously (1= EM occurrence, 0= no occurrence) and used for binary logistic regressions.

Independent variables.

Demographic information were collected, including age, gender, marriage status, education, living situations, country of birth, number of children, income and income adequacy.

Physical health were assessed by the 7-item Activities of Daily Living (ADL) (Katz et al., 1963) and the 8-item Instrumental Activities of Daily Living (IADL) (Lawton & Brody, 1969). The ADL and IADL scales are widely accepted to measure the independent physical functioning of elders. The difference is that the IADL scale assesses more complicated daily tasks (e.g. shopping and doing laundry) than the ADL scale (e.g. eating and bathing). Scores of the ADL and IADL scales were calculated separately, with higher scores indicating higher levels of physical impairment.

Mental health was assessed by the 12-item Centre for Epidemiological Studies Depression scale (CES-D) to assess depression of elders and its validity in Chinese Americans has been confirmed (Ying, 2006). Participants were asked to rate on a 4-point Likert scale (from *1 = often* to *4 = never)*, with higher scores indicating higher levels of depression.

Family support variables.

Family support network was assessed 3 items derived from Lubben Social Network Scale (LSNS) (Lubben & Gironda, 2000; Lubben et al., 2006) that has been validated with Chinese elders in Hong Kong (Chi & Chou, 2001) and in Phoenix (Sun, Gao, & Coon, 2013). Participants were asked about the number of supportive relatives, such as "How many relatives do you feel close to such that you could call on them for help?" The possible range of scores is 0 to 5, with higher scores indicating a larger family network size.

Family cohesion was assessed by the 10-item Family Orientation subscale of the Chinese Personality Assessment Inventory (CPAI-2) (Cheung et al., 1996; Cheung, Leung, Song, Zhang, 2001). Participants were asked to report whether they agree with the

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statements on importance of family members (e.g. "I often have serious clashes of opinion with my family") (yes/no). The English and Chinese versions of the Chinese Personality Assessment Inventory have been validated (Cheung et al., 1996; Cheung et al., 2003). Higher scores indicate a higher degree of family cohesion.

Cultural variables.

Acculturation was measured by the acculturation scale of which the validity has been confirmed in Chinese Americans (Gupta & Yick, 2001). The 10-item acculturation scale assesses the preference for language, social activities, and social customs on a 5-point Likert scale (1= completely disagree, to 5 = completely agree). The total score ranges from 10 to 50, with higher scores indicating higher levels of acculturation.

Traditionalism/Acceptance to traditional Chinese cultural values was assessed by 6 items deemed most relevant to the elderly participants from the 15-item CPAI-2 Traditionality-Modernity scales to be included in the current study, with the permission of the authors of the CPAI-2 (Cheung et al., 1996; Cheung, Leung, Song, Zhang, 2001). Participants were asked whether they agree on the traditional Chinese cultural beliefs (e.g. "family relationship" and "hierarchical order") (yes/no questions). The English and Chinese versions of the Chinese Personality Assessment Inventory have been validated (Cheung et al., 1996; Cheung et al., 2006). Higher scores indicate a higher degree of individual modernization and a lower degree of traditional beliefs.

Quantitative Data Analysis

Survey data were entered into SPSS 22 for analysis. First, missing data at random were handled through mean substitution. Missing data that was not random were not handled when the variables were primarily for descriptive purposes. Second, the internal

consistency of scales were assessed. Third, a dummy variable was created to indicate the prevalence of EM, the dependent variable. Those who respond yes to one or more items in the EM assessment tool was coded as 1; otherwise they were coded as 0. The investigator admits that a dichotomous scoring method reduces the variances in the dependent variable (EM occurrence). However, if scored continuously and used for linear regressions, the dependent variable would be rather skewed and violate the normality assumption. Similarly, two dummy variables were created to indicate the prevalence of elder abuse (including physical, emotional, and financial maltreatment) and the prevalence of elder neglect.

Descriptive statistics were used to describe the prevalence rate of general EM and each type in the sample. Bivariate analyses, including spearman correlation and chi-square tests, were conducted to test the associations among variables of interest in the bivariate level and to indicate possible multicollinearity among independent variables. Multiple logistic regressions were conducted to investigate the two hypotheses mentioned above. Demographic variables, depression and the main independent variables of interest (e.g. family support variables and cultural variables) listed in the hypotheses were entered at the same time. The investigator ensured that only 8 independent variables were put in the logistic regression because the sample size was calculated based on this assumption to ensure sufficient power. Four logistic regression models tested the effects of main independent variables on EM occurrence (binary dependent variables) while controlling demographics and health conditions of elders. In Model 1 and 2, family support variables (i.e., family support network and family cohesion) were entered respectively in order to investigate Hypothesis 1. Similarly, cultural variables (i.e., acculturation and

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traditionalism) were entered respectively in Model 3 and 4 in order to investigate

Hypothesis 2. Similar logistic regressions were conducted to test the association between

risk factors (independent variables) and the occurrence of elder abuse and neglect

(dependent variables). Model fit of the models were reported.

Ethical Issues

Approval from Arizona State University's Institutional Review Board (IRB) was

obtained (STUDY00001515). Participants in the focus group and surveys were provided

a consent letter (in English, simplified and traditional Chinese) that was read aloud to

them. Participants had the right to decline to participate or to stop the interview at any

time. There are no foreseeable risks to people's participation; however, if participants felt

discomfort when disclosing their EM experiences, they had the right to discontinue the

interview.

Data were de-identified by using fake names. No real names were used in transcripts,

data analyses and reports. Transcripts and survey data were stored on password-protected

computers for which only the investigator has access. Under no circumstances will data

be released to other parties or used for other purposes. However, participants were

informed in advance that current EM cases (not EM cases in the past year) would be

reported to authorities because social workers are mandatory reporters in the U.S. No

current EM cases were reported or observed by the investigator in this study. A list of

resources (e.g. the Adult Protective Service hotline) were provided to each participant or

any individual interested in the information.

Chapter 5

RESULTS

Qualitative Component (Phase I)

In Phase I, three Mandarin-speaking groups and one Cantonese-speaking group were conducted to ensure the cultural and linguistic appropriateness of subsequent survey questions. Table 1 displays the characteristics of the 25 focus group participants. The interviewer reminded the participants of the distinction between culturally inappropriate behaviors toward elders and abusive behaviors.

The average age of focus group participants was 75.08 (SD=6.71). Over 60% were female; the average number of children is two and a half; about one half of participants had an education level below 12th grade; one third lived alone; about 15% had poor or fair health levels (Table 1). All focus group participants were foreign-born and the average years of residency in the U.S. is was about 16 years. The investigator did not recruit any U.S.-born Chinese American elders in focus group discussions because they are unlikely to communicate with other participants in Mandarin or Cantonese.

Table 1.

Characteristics of Focus Group Participants (N=25)

Variable	*N* (%) or Mean (*SD*)
Age	75.08 (*SD*=6.81)
Female	16 (64%)
Number of children	2.40(SD=1.25)
Education	
Below 6th grade	4(15.4%)
9th grade	4(16.2%)
12th grade	5(16.5%)
Some college, vocational or trade school	7(18.0%)
College graduate	3(26.7%)

Postgraduate or higher	2(7.1%)
Monthly household income	
$0-$208	9(31.2%)
$209-$416	3(11.3%)
$417-$833	7(27.1%)
$834-$1,666	2(8.3%)
$1,667-$2,499	2 (1.5%)
$2,500 - $3,749	1 (3.8%)
$3,750 – or more	1 (16.6%)
Living alone	8(33.8%)
Self-rated health	
Poor	3(3.0%)
Fair	2(13.2%)
Average	9(47.4%)
Good	6(26.7%)
Excellent	5(9.8%)
Years of residency	16.04 (SD=13.62)
Born in the U.S.	0

Focus Group Results

Elder maltreatment, elder abuse, and elder neglect were unfamiliar to elder participants. When asked about their perceptions of EM, most participants thought abuse is a strong word in itself and only considered "physical attack" and "no feeding in hunger" as EM. When asked how common EM is in the community, participants denied any current EM occurrence around them. To stimulate the focus group discussions, pseudo vignettes (See Appendix B) related to physical, emotional, financial maltreatment and elder neglect were presented so that participants could share their reflections on the four pseudo cases. For the pseudo case related to physical maltreatment, some participants felt it would be abusive only if Ms. Zhang had any injuries after falling into the floor, considering the bad mood of her sick husband. For the pseudo case related to emotional maltreatment, some commented that screaming is culturally inappropriate, but

not serious enough to be labelled as emotional maltreatment. Screaming or "making a loud sound" at one's own father is impolite, unfilial, but not abusive. Another participant added that it could be considered emotional maltreatment only if Mr. Lee felt despaired after his son screamed at him. One participant commented that she would tolerate such behaviors of adult children. For the pseudo case related to financial maltreatment, most participants agreed Meili illegally "stole" money from her mum no matter what the purpose is, but they would not report it because "parents' money and properties will be inherited by children anyway". For the pseudo case related to elder neglect, all participants agreed that no visits or calls from children were abusive. Based on participants' responses to the four pseudo vignettes, whether physical attacks cause injuries, and whether verbal attacks cause serious emotional outcomes should be taken into account in revising questionnaires.

Draft EM screening assessment tools derived from existing scales were read to participants to ensure appropriate wording and all possible indicators of EM included. In line with the purpose of the focus groups, results are organized by types of EM.

Physical Maltreatment.

Participants responded that the term "holding you down" was confusing and the examples of injuries (i.e. cuts, bruises, or other marks) were too wordy. They suggested simpler sentences in Chinese. For the third indicator, both "attacking with weapons" and "attacking with hand/object" could be counted as "physical attack" (the second indicator) and were considered redundant and unnecessary by the participants. All corresponding changes are listed in Table 2.

Table 2.

Indicators of Physical Maltreatment

Indicators of physical maltreatment (draft)	Abbreviation	Corresponding changes
#1 Have any of your family members tried to restrain you by holding you down, tying you up, or locking you in your room or house?	Physical restraint	Deletion of "holding you down"
#2 Have any of your family members physically hurt you so that you suffered some degree of injury, including cuts, bruises, or other marks?	Physical attack	Deletion of "including cuts, bruises, or other marks"
#3 Have any of your family members ever hit you with their hand or object, slapped you, or threatened you with a weapon?	Attacking with weapons	Deletion of the whole question

Emotional Maltreatment.

Participants commented that the first indicator was too wordy: "felt afraid for your safety or intimidated" is similar to "felt threatened". For the second indicator, "destroying belongings" of elders is considered culturally inappropriate or unfilial, but not abusive. "Destroying belongings" is an impolite way of expressing anger, but not serious enough to be labeled abusive. Therefore the second indicator was deleted. The third indicator was not appropriate because not all situations involving "harassment and coercing" are abusive. Some participants responded that "only forcing to leave home or move to facilities is abusive". One participant added that children may forcefully or repeatedly ask elder parents to do something because of the different life styles and habits between the young and old generations, which is understandable and acceptable. Participants agreed that "physically threatening" is a good indicator of emotional

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maltreatment but "discomfort with family" is not, because "it is hard to tell who the victim in an uncomfortable family relationship is", particularly "when a daughter-in-law does not get along well with her mother-in-law". One participant added that "children may also feel emotionally abused by the elder parents". The fifth question was a weak indicator of emotional maltreatment, and was eventually deleted from the questionnaire. All corresponding changes are listed in Table 3.

Table 3.

Indicators of Emotional Maltreatment

Indicators of emotional maltreatment (draft)	Abbreviation	Corresponding changes
#1 Have any of your family members verbally attacked, scolded, or yelled at you so that you felt afraid for your safety, threatened or intimidated?	Verbal attack	Deletion of "felt afraid for your safety or intimidated", adding "felt despaired"
#2 Have any of your family members destroyed something belonging to you?	Destroying belongings	Deletion of the whole question
#3 Have any of your family members forcefully or repeatedly asked you to do something so much that you felt harassed or coerced into doing something against your will?	Harassment and coercing	"Have any of your family members forcefully or repeatedly asked you to move from your home or been confined to an assisted living facility?"
#4 Have any of your family members threatened to hit or throw something at you?	Physically threatening	-
#5 Have you felt uncomfortable with any of your family members?	Discomfort with family	Deletion of the whole question

Financial Maltreatment.

Participants responded that taking your belongings without your consent was both legally and culturally abusive. Their attitudes toward the second indicator were complicated. Some said whether or not "demanding goods for services" could be described as abusive depends on the economic status of both sides. "If the elder parents live a wealthy life while the family member lives in poverty, it is acceptable for this person to ask for economic returns". One commented that it also depends on whether the family member is U.S.-born or not. "Demanding goods for services" is not acceptable in Chinese culture, but is acceptable in American culture, just like "tipping" is part of American culture. "If the family member is an 'ABC' (a term for American-born Chinese), demanding goods for services is acceptable". Another participant added that whether or not "demanding goods for services" is abusive depends on "whether the family member signed for guarantor for the elder in the immigration process". If the family member is the guarantor, he/she is supposed to take good care of the elder and his/her demanding behavior should be considered financial maltreatment. Participants did not reach an agreement on the appropriateness of the second indicator. The investigator decided to delete it from the survey questionnaire because this question did not specify the kinds of "services" (e.g. daily care or a ride) or "goods" (e.g. food and cash), and the financial status of both parts. The third indicator was revised to suit the needs of elder immigrants. Some responded that most elder immigrants don't have access to American banks due to language barriers and transportation problems, therefore deposit their money under the name of adult children in the U.S. To avoid tax and other cost, elders may transfer properties (e.g. apartment) or savings they have in the home country (e.g.

Mainland China or Vietnam), to their adult children staying in the home country. Elders

may also ask them collect pension money on their behalf. Elder immigrants are most

worried that their adult children in the home country or the U.S. may not "return"

properties/money they helped take care of. All corresponding changes are listed in Table

4.

Table 4.

Indicators of Financial Maltreatment

Indicators of financial maltreatment (draft)	Abbreviation	Corresponding changes
#1 Have any of your family members taken things that belong to you without your OK?	Taking belongings	-
#2 Have any of your family members demanded for goods in exchange for services?	Demanding goods for services	Deletion of the whole question
#3 Have any of your family members stopped you from getting your money or knowing about it?	Stopping from knowing	Has anyone refused to return money, retirement pension or rent that you asked them to collect on your behalf?

Elder Neglect.

Some participants responded that "not spending time together" is an indicator of

elder neglect only when an elder lacks language and physical competencies to go

shopping or see a doctor alone. Another participant added that "not spending time

together" is culturally inappropriate, but not serious enough to be labeled "elder neglect".

For example, "my daughter is busy with her full-time job and she has three kids. If she

does not have time to take me shopping or to the doctor, I am OK with this." Due to

reasons above, the first indicator is an inappropriate indicator of elder neglect and therefore deleted from the questionnaire. Almost all participants agreed that the second indicator "abandonment in public" was abusive and could be labelled "elder neglect". Participants thought the third indicator was very confusing. After clarified by the investigator, "bed bound" was still not considered elder neglect by most female participants. They asked what if the family member made you stay in bed to have rest and what if the elder did not know he/she was sick. The third indicator is inappropriate; therefore it was deleted by the investigator. Then the investigator further explored participants' understanding of elder neglect and the real cases in the Chinese community. Several participants mentioned that "no visits or calls" from adult children in the pseudo case was abusive. One shared a real case of what he/she perceived as elder neglect,

> Like Mr. Lee in the pseudo case, an old couple also immigrated to the U.S. to take care of the kids per the request of their son. Years later, the kids grew up and her son asked them to leave home. Without a bank account in the U.S. or any cash in hand, the couple requested money from the son for two air plane tickets to go back to China but got refused by their son. The couple had to live in the garage of a Chinese friend and did housework in exchange a place to stay. The son has never contacted them since then. … After saving enough money (by doing housework) for an international flight, the couple flew back to China immediately.

> Another participant also shared a real case of what he/she perceived as elder

neglect,

> My friend immigrated to the U.S. at an old age to reunite with her daughter. She gave almost all the savings to her son staying in Mainland China. When my friend was seriously sick in the U.S., she was not covered by Medicaid and requested her daughter to help pay medical bills but was refused. The daughter complained that her brother was the designated one in the family who has the obligation to take care of mum and the one who inherits….My friend returned to China for medical care.

Both cases resonates with other focus group participants and are perceived as elder neglect in the discussions. "No contacts" and "no help in need" are considered indicators of elder neglect and were added to the screening assessment tool. All corresponding changes are listed in Table 5.

Table 5.

Indicators of Elder Neglect

Indicators of elder neglect (draft)	Abbreviation	Corresponding changes
#1 Have any of your family members spent time with you, taking you shopping or to the doctor?	Not spending time together	-
#2 Have any of your family members ever abandoned you in a clinic, hospital, or any other public place?	Abandonment in public	
#3 Does someone in your family make you stay in bed or tell you that you are sick when you know you are not?	Bed bound	Deletion of the whole question
-	No contacts	#4 Have any of your close family members never visited you or greeted you (e.g. by phone)?
-	No help in need	#5 Have any of your family members refused to help you pay medical bills, rent or food when you were in need, even when requested by you?

The revised version was then reviewed by the three dissertation committee members at ASU. The revising process was omitted. Corresponding changes are listed in Table 6.

Table 6.

Changes Based on Expert Reviews

Indicators of physical maltreatment (draft)	Abbreviation	Corresponding changes
#1 Have any of your family members forcefully or repeatedly asked you to move from your home or been confined to an assisted living facility?"	Moving from home or confined to a facility	"Have any of your family members ever forcefully asked you to move from your home" and "Have you even been forcefully confined to an assisted living facility by any of your family members?"
#2 Have any of your family members taken things that belong to you without your OK?	Taking belongings	Add "ever"
#3 Has anyone refused to return money, retirement pension or rent that you asked them to collect on your behalf?	Refusing to return	Have any of your family members refused to return properties/money he/she helped take care of?
#4 Have any of your family members abandoned you in a clinic, hospital, or any other public place?		Add "ever"

Changes Based on the Pilot Study

After the expert reviews, the revised questionnaire was pilot-tested with six Chinese American elders. Participants spent most of time rating the depression, traditionalism and acculturation scales and quickly skimmed the EM screening

assessment tool. In self-completed surveys, most missing value exists in the EM

screening assessment tool. In investigator-administered surveys, from participants'

gestures (e.g. frowning and hand-waving) and language (e.g. "no! no!"), the investigator

felt their eagerness to deny the occurrence of EM and the resistance to the sensitive

questions on EM. The investigator then reclaimed the ethical standards (e.g.

confidentiality, non-reporting of previous EM experience) and the benign purpose of this

study (e.g. elder protection and abuse prevention), and participants agreed to fill in the

missing values or responded to the investigator's questions patiently. In order to

minimize the potential resistance and discomfort of participants and to reduce the length

and missing value of the survey, the Likert scale indicating the frequency of abusive

experiences were omitted from the final version of questionnaire.

When asked "have you even been forcefully confined to an assisted living facility

by any of your family members", participants were confused by the term "an assisted

living facility" and could not distinguish assisted living facilities from senior apartments

and nursing homes. The investigator spent about five minutes in clarifying the

differences. The question "Have any of your family members ever forcefully asked you

to move from your home" is more appropriate for elders living in communities. Taking

into account the length of the interview and the confusion of the term "an assisted living

facility", the indicator "confined to an assisted living facility" was deleted from the

screening assessment tool. The indicator "spending time together" was deemed

inappropriate by the pilot study participants because "not taking elders shopping or to the

doctor" is abusive only when elders lack language or physical competencies, or do not

have transportations. One participant asked whether or not "spending time together"

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includes "talking via phone" or "video-calls"; if yes, this indicator just repeats the indicator "Have any of your close family members never visited you or greeted you (e.g. by phone)?" For the reasons above, the indicator "spending time together" was deleted from the screening assessment tool. When asked "have any of your close family members never visited you or greeted you", one participant said "I lived with my husband, son, daughter in-law and grandchildren and of course I had frequent contacts with my close family members. This question doesn't make sense." This indicator was revised accordingly and added "or been indifferent to you when living with you" for elders living with family members. All corresponding changes in the screening assessment tool are listed in Table 7. See Appendix D for the finalized questionnaire.

Table 7.

Changes Based on the Pilot Study (n=6)

Indicators of physical maltreatment (draft)	Abbreviation	Corresponding changes
#1 Have you even been forcefully confined to an assisted living facility by any of your family members?	Confined to a facility	Deletion of the whole question
#2 Have any of your family members taken things that belong to you without your OK?	Taking belongings	Add "ever"
#3 Have any of your family members spent time with you, taking you shopping or to the doctor?	Spending time together	Deletion of the whole question
#4 Have any of your close family members never visited you or greeted you (e.g. by phone)?	No contacts	Add "or been indifferent to you when living with you?

#5 Have any of your family members abandoned you in a clinic, hospital, or any other public place?	Add "ever"

Quantitative Component (Phase II)

In Phase II, revised questionnaires were distributed to Chinese American older adults (n=266) to detect EM prevalence and to identify the factors associated with victimization. Table 8 displays the characteristics of survey participants. The average age of survey participants was 76.24 (*SD*=7.00). Over 60% were female; the average number of children is two and a half; over 30% had an education level below 12th grade; one third lived alone; about 15% had poor or fair health levels. Over 80% of elder participants were foreign born and the average years of residency is about 18 years.

Table 8.

Characteristics of Survey Participants (N=266)

Variable	*N* (%) or Mean (*SD*)
Age	76.24 (*SD*=7.00)
Female	173(65%)
Number of children	2.37(SD=1.25)
Education	
Below 6th grade	41(15.4%)
9th grade	43(16.2%)
12th grade	44(16.5%)
Some college, vocational or trade school	48(18.0%)
College graduate	71(26.7%)
Postgraduate or higher	19(7.1%)
Monthly household income	
$0-$208	83(31.2%)
$209-$416	30(11.3%)
$417-$833	72(27.1%)
$834-$1,666	22(8.3%)
$1,667-$2,499	4 (1.5%)

$2,500 - $3,749	10 (3.8%)
$3,750 – or more	44(16.6%)
Living alone	90(33.8%)
Self-rated health	
Poor	8(3.0%)
Fair	35(13.2%)
Average	126(47.4%)
Good	71(26.7%)
Excellent	26(9.8%)
Years of residency	17.91(SD=14.76)
Born in the U.S.	35(13.2%)

The majority of survey participants (73%) lived in senior apartments. Demographic differences between those residing in non-age restricted communities and senior apartments were analyzed. Elders residing in non-age restricted communities had higher education levels (t = 5.98, $p<.01$), younger age (t = -2.98, $p<.01$), and higher income levels (t=13.58, $p<.01$).

Very little missing data were present in the entire questionnaire. The EM screening assessment tool has no missing data. Several demographic variables had less than 1% missing, such as the number of children. Considering the low rate of missing and the small sample size, mean substitution was used for data imputation. EM screening assessment tool has no missing value because the investigator reviewed each survey after completion and encouraged participants to answer the simple "yes/no" EM screening questions. However, some demographic variables had missing data that was not random. For example, some participants were unwilling to answer their monthly income. Missing value for these items were not handled because they were primarily for descriptive purposes.

After missing data were addressed, internal consistency was assessed for scales in the survey (ADL α = .90; IADL α = .87; CESD α =.79; family support network α = .99;

acculturation α =.85). All these scales have good internal consistency. The Cronbach's

alpha values for traditionalism, family cohesion, and EM screening assessment tool were

not reported because these scales asked true/false or yes/no questions.

Prevalence Rate of EM, Elder Abuse and Elder Neglect

The prevalence rates of general EM and elder abuse are 10.2% (27/266) and 8.3%

(22/266) respectively in this sample. The most prevalent type of EM is elder neglect

(5.3%), followed by emotional (4.1%), financial (2.3%) and physical maltreatment

(0.4%). The prevalence rate of a single type of EM, (versus multiple types of EM) was

7.1% (19/266). The most prevalent EM indicator was "verbal attack" from family

members, followed by "abandonment in public" and "no help in need". The least

prevalent EM indicators were "physical attack" and "physical restraint" (see Figure 4).
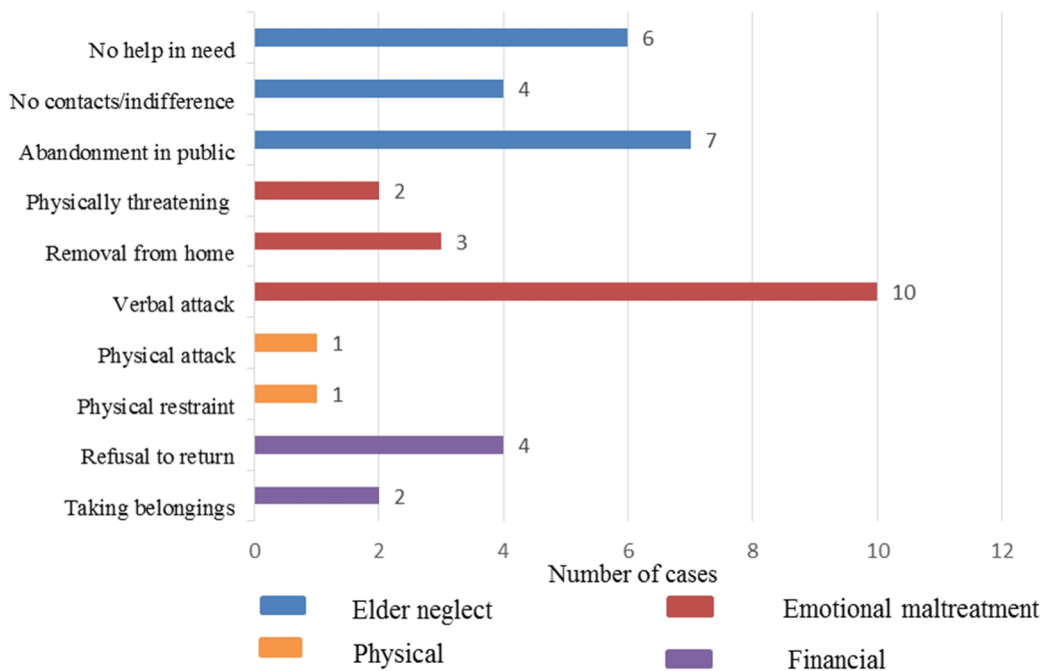
Figure 4. Frequency of EM Indicators

Bivariate Analysis

Spearman correlation (Table 9) indicated that EM was significantly associated with lower levels of ADL competency ($r = -.12$, $p < .10$), higher levels of depression ($r = .21$, $p < .01$) and lack of family cohesion ($r = -.11$, $p < .10$); elder abuse was significantly associated with lack of family cohesion ($r = -.10$, $p < .10$) and higher levels of acculturation ($r = .11$, $p < .10$); elder neglect was significantly associated with lower levels of ADL competency ($r = -.10$, $p < .10$), higher levels of depression ($r = .22$, $p < .01$), and higher levels of acculturation ($r = .11$, $p < .10$). Chi-square tests indicated that being female, living alone and living in senior apartments were not significantly associated with EM, elder abuse and neglect.

Table 9. *Spearman Correlations among EM and Variables of Interest*

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1 Age	-											
2 Number of children	.26**											
3 Education	-.03	-.32**										
4 Income inadequacy	.08	.00	.15*									
5 ADL competency	-.19**	-.03	.12 †	.02								
6 IADL competency	-.19**	.03	.03	.21**	.51**							
7 Self-rated health	-.04	.02	.16**	.33***	.43***	.46**						
8 Depression	.06	-.04	-.19**	-.26**	-.38***	-.43***	-.55**					
9 Family cohesion	.07	.01	.09	.07	-.02	.00	.01	-.08				
10 Family support network	.02	.17**	-.07	.07	.11 †	.07	.16**	-.14*	.17**			
11 Traditionalism	.1	-.08	.21**	.01	.00	-.08	.05	.02	.07	-.04		
12 Acculturation	-.07	-.06	.41**	.27**	.13*	.12*	.25**	-.08	.09	.01	.12†	
13 Elder maltreatment	.00	-.05	.00	-.04	-.12†	.00	.03	.21**	-.11†	.08	-.05	.06
14 Elder abuse	-.1	.00	-.02	-.06	.01	-.04	.02	.09	-.10†	.04	-.06	.11†
15 Elder neglect	.04	-.01	-.07	-.05	-.1†	.00	-.03	.22**	-.07	.11†	-.06	-.05

Table 10. *Results of Logistic Regression Analysis (DV=EM)*

Variables	Elder Maltreatment							
	Model 1		Model 2		Model 3		Model 4	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Demographics								
Age	1.00	[.95, 1.09]	.99	[.94,1.08]	1.00	[.95, 1.09]	1.00	[.95,1.08]
Female	.91	[.34, 2.80]	.80	[.30, 2.14]	.80	[.30, 2.14]	.79	[.30,2.08]
Number of children	.92	[.62, 1.39]	.86	[.55, 1.26]	.89	[.60, 1.31]	.89	[.61,1.29]
Education	1.14	[.82, 1.57]	1.19	[.86, 1.72]	1.11	[.82, 1.63]	1.01	[.72,1.41]
Income inadequacy	1.06	[.60, 1.88]	.99	[.51, 1.70]	1.04	[.60, 1.79]	.94	[.54,1.63]
Living alone	.71	[.24, 1.95]	.79	[.29, 2.16]	.75	[.28, 2.01]	.74	[.28,1.97]
Health								
Depression	1.14**	[1.06, 1.22]	1.16**	[1.08,1.25]	1.13**	[1.06,1.22]	1.14**	[1.06,1.23]
Family variables								
Family cohesion	.82*	[.68, .99]						
Family support network			1.19*	[1.02,1.39]				
Cultural variables								
Traditionalism					.95	[.70,1.29]		
Acculturation							1.05†	[.98,1.10]
-2 Log likelihood	155.03		154.55		159.37		156.82	

Note. † $p < .10$ (2-tailed), * $p < .05$ (2-tailed), ** $p < .01$ (2-tailed).

Table 11. *Results of Logistic Regression Analysis (DV=Elder Abuse)*

Variables	Elder Abuse							
	Model 1		Model 2		Model 3		Model 4	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Demographics								
Age	.93†	[.87, 1.01]	.93†	[.86,1.00]	.93†	[.87, 1.01]	.94†	[.87,1.01]
Female	.78	[.27, 2.26]	.68	[.24, 1.95]	.69	[.24, 1.96]	.65	[.25,1.85]
Number of children	1.03	[.65, 1.63]	1.00	[.64, 1.58]	.99	[.59, 1.53]	.96	[.57,1.44]
Education	.95	[.69, 1.33]	.97	[.69, 1.35]	.94	[.67, 1.30]	.80	[.57,1.21]
Income inadequacy	1.02	[.55, 1.87]	.97	[.54, 1.74]	.99	[.55, 1.79]	.88	[.49,1.58]
Living alone	.39	[.12, 1.28]	.45	[.14, 1.47]	.43	[.13, 1.39]	.41	[.13,1.34]
Health								
Depression	1.06	[.99, 1.14]	1.08†	[1.00,1.16]	1.06†	[.99,1.14]	1.07†	[.99,1.15]
Family variables								
Family cohesion	.84†	[.68, 1.04]						
Family support network			1.09	[.92,1.28]				
Cultural variables								
Traditionalism					.90	[.64,1.27]		
Acculturation							1.06*	[1.00,1.13]
-2 Log likelihood	138.75		140.45		141.48		137.18	

Note. † p < .10 (2-tailed), *p < .05 (2-tailed), ** p < .01 (2-tailed).

Table 12. Results of Logistic Regression Analysis (DV=Elder Neglect)

Variables	Elder Neglect							
	Model 1		Model 2		Model 3		Model 4	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Demographics								
Age	1.03	[.95, 1.13]	1.01	[.92, 1.10]	1.03	[.96, 1.16]	1.03	[.95, 1.15]
Female	.96	[.23, 4.01]	.87	[.21 3.59]	.79	[.19, 3.24]	.80	[.20, 3.23]
Number of children	.97	[.59, 1.58]	.88	[.53, 1.46]	.92	[.56, 1.46]	.92	[.58, 1.43]
Education	1.01	[.65, 1.56]	1.15	[.73, 1.81]	.99	[.65, 1.53]	.96	[.61, 1.50]
Income inadequacy	.91	[.44, 1.87]	.81	[.40, 1.62]	.90	[.45, 1.79]	.89	[.45, 1.78]
Living alone	.81	[.22, 3.03]	.82	[.21, 3.25]	.83	[.22, 3.15]	.82	[.22, 3.09]
Health								
Depression	1.17**	[1.07, 1.29]	1.21**	[1.09, 1.35]	1.17**	[1.08, 1.28]	1.17**	[1.07, 1.28]
Family variables								
Family cohesion	.82 †	[.06, 1.05]						
Family support network			1.35**	[1.08, 1.70]				
Cultural variables								
Traditionalism					.92	[.60, 1.41]		
Acculturation							1.01	[.93, 1.10]
-2 Log likelihood	91.86		73.39		94.23		106.57	

Note. † $p < .10$ (2-tailed), * $p < .05$ (2-tailed), ** $p < .01$ (2-tailed).

Multicollinearity among independent variables may exist. Among health variables, depression was strongly associated with ADL($r = -.38$, $p < .01$), IADL ($r = -.43$, $p < .01$) and self-rated health ($r = -.55$, $p < .01$). Among the four independent variables listed in hypotheses, family cohesion was significantly associated with family support network ($r = .17$, $p < .01$); traditionalism was significantly associated with acculturation ($r = .12$, $p < .10$). Although the correlation coefficients did not exceed the typical cutoff score (0.80 in most cases), multicollinearity may still exists because bivariate correlations may not reflect multicolinearity and it is difficult to "define a cutoff value that will always be appropriate" (Berry, & Feldman, 1985, p.43), particularly with a very small sample size. Taking into account the significant associations between depression and EM/elder neglect at the bivariate level, depression was selected as the only indicator of health to avoid multicollinearity. The four independent variables were entered separately in the following logistic regression analyses to examine Hypothesis 1 (a, b) and Hypothesis 2 (a, b) and to avoid possible multicollinearity as well.

Logistic Regression Results

Risk Factors of EM.

To test the two hypotheses, four logistic regression models were built (see Table 10). Model 1 and 2 tested Hypothesis 1(a) and Hypothesis 1(b); Model 3 and 4 tested Hypothesis 2(a) and Hypothesis 2(b). To ensure the statistical power in logistic regressions, a total of 8 variables were put into each model. In Model 1, six demographic variables, depression and the main independent variable of interest (e.g. family cohesion) were entered. The differences among Model 1, 2, 3 and 4 lie in the main independent variable of interest: family cohesion was entered in Model 1; family support network was

entered in Model 2; traditionalism was entered in Model 3; acculturation was entered in Model 4.

Model 1, 2, 3 and 4 indicate that depression is a statistically significant risk factor for EM (OR=1.14, p<.01 in Model 1; OR=1.16, p<.01 in Model 2; OR=1.16, p<.01 in Model 3; OR=1.16, p<.01 in Model 4). With a one-unit increase in depression scores, the log odds of EM occurrence increase 1.14-1.16 times, with the other variables in the model held constant. No demographic variables were significantly associated with EM occurrence.

In Model 1, lack of family cohesion is positively associated with EM occurrence (OR= .82, p<.05). In Model 2, having larger family support network is positively associated with EM occurrence (OR=1.19, p<.05). In Model 4, acculturation is positively associated with EM occurrence (OR=1.05, p<.10). With a one-unit increase in family cohesion, the log odds of EM occurrence will decrease 0.82 times, with the other variables in the model held constant. With a one-unit increase in family support network, the odds of EM occurrence will increase 1.19 times, with the other variables in the model held constant. With a one-unit increase in acculturation, the odds of EM occurrence will increase 1.05 times, with the other variables in the model held constant.

When EM is the dependent variable, Hypothesis 1(a) and 2(b) are supported; Hypothesis 1(b) and 2(a) are not supported. Chinese American elders with higher levels of depression, lower levels of family cohesion, larger family support network or higher levels of acculturation are more likely to experience general EM. Adherence to Chinese culture is not significantly associated with general EM.

Risk Factors of Elder Abuse.

Similar logistic regression models were built to identify the risk factors of elder abuse (see Table 11). Demographic variables, depression and the main independent variables of interest (family support size, family cohesion, traditionalism or acculturation) were entered in each model. The only differences among Model 1, 2, 3 and 4 lie in the main independent variable of interest: family cohesion was entered in Model 1; family support network was entered in Model 2; traditionalism was entered in Model 3; acculturation was entered in Model 4.

In the four models, younger age is positively associated with elder abuse occurrence (OR=.93, $p<.10$ in Model 1; OR=.93, $p<.10$ in Model 2; OR=.93, $p<10$ in Model 3; OR=.94, $p<.10$ in Model 4). With a one-unit increase in age, the log odds of elder abuse occurrence will decrease 0.93-0.94 times, with the other variables in the model held constant. In Model 2, 3 and 4, depression is a statistically significant risk factor of EM (OR=1.08, $p<.10$ in Model 2; OR=1.06, $p<.10$ in Model 3; OR=1.07, $p<.10$ in Model 4). With a one-unit increase in depression scores, the log odds of elder abuse occurrence will increase by a factor of 6-8 percent, with the other variables in the model held constant.

In Model 1, lack of family cohesion is positively significantly associated with EM occurrence (OR=.84 $p<.10$). With a one-unit increase in family cohesion, the log odds of elder abuse occurrence will decrease 0.84 times, with the other variables in the model held constant. In Model 4, higher acculturation levels is positively associated with elder abuse occurrence (OR=1.06, $p<.05$). With a one-unit increase in acculturation scores, the log odds of elder abuse occurrence will increase 1.06 times, with the other variables in the model held constant.

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When elder abuse is the dependent variable, Hypothesis 1(a) and 2(b) are supported; Hypothesis 1(b) and 2(a) are not supported. Younger Chinese elders or those with higher levels of depression, lower levels of family cohesion, or higher levels of acculturation are more likely to experience elder abuse. Adherence to Chinese culture is not significantly associated with elder abuse.

Risk Factors of Elder Neglect.

Similar logistic regression models were built to test the risk factors of elder neglect (see Table 12). All the four models show that depression is a statistically significant risk factor of elder neglect (OR=1.17, $p<.01$ in Model 1; OR=1.21, $p<.01$ in Model 2; OR=1.17, $p<.01$ in Model 3; OR=1.17, $p<.01$ in Model 4). With a one-unit increase in depression scores, the odds of elder neglect occurrence will increase 1.17-1.21 times, with the other variables in the model held constant. No demographic variables were significantly associated with elder neglect occurrence.

In Model 1, lack of family cohesion is significantly associated with elder neglect occurrence (OR=.82 $p<.10$). With a one-unit increase in family cohesion, the odds of elder neglect occurrence will decrease by a factor of 18 percent, with the other variables in the model held constant. In Model 2, have larger family support network is statistically associated with elder neglect (OR=1.35, $p < .05$). With a one-unit increase in family support network, the odds of elder neglect occurrence will increase 1.35 times, with the other variables in the model held constant.

When elder neglect is the dependent variable, Hypothesis 1(a) is supported; Hypothesis 1(b) and 2(a, b) are not supported. Chinese American elders with higher levels of depression, lower levels of family cohesion, or larger family support network

are more likely to experience elder neglect. Adherence to Chinese culture is not significantly associated with elder neglect.

In sum, Hypothesis 1 (a) is supported; Hypothesis 1 (b) and Hypothesis 2 (a) were not supported, no matter the dependent variable is EM, elder abuse or elder neglect. Depression and lack of family cohesion are risk factors of EM, elder abuse and elder neglect. Chinese elders with higher acculturation levels are more likely to experience general EM and elder abuse; those with larger family support network are more likely to experience general EM and elder neglect. Traditionalism is not significantly associated with EM, elder abuse or elder neglect.

Chapter 6

DISCUSSION

This study enriched our understanding of EM, a hidden social problem among

Chinese American elders. While previous studies have focused on the perception,

prevalence and associated factors of EM among Americans overall, this study synthesizes

elder abuse and elder neglect as two important components of EM and examined the

effects of family support and cultural variables on general EM, elder abuse and elder

neglect.

Discussion of Findings

Perceptions and Prevalence of EM

Elder maltreatment, elder abuse, and elder neglect are unfamiliar concepts to

Chinese elders. The uniqueness of Chinese American elders' perceptions of EM lies in

their understanding of emotional maltreatment and elder neglect. It seems that Chinese

American elders tend to tolerate the conflicts within the families, such as "destroying

your belongings", "uncomfortable relationship" and "verbal attack without causing

serious emotional outcomes". However, Chinese American elders may not tolerate "no

help in need" and "no contacts/indifference" of family members and label such behaviors

as elder neglect, which may result from Confucian teaching that emphasizes providing

health care, financial support and showing obedience to parents (Lai, 2009). The newly

revised Elder Rights Protection Laws (2013) mandating the frequent visits/greeting of

adult children may also affect Chinese elders' perceptions of elder neglect. Moreover,

elder immigrants in the U.S. may lack English literacy and transportation; therefore their

daily lives may heavily depend on the support of family members (e.g. taking the elder

shopping or to a doctor). With "no help in need" and "no contacts/indifference" of family members, elder immigrants may not only suffer from the emotional distress but could also seriously limit their functioning within American society.

The prevalence rate of general EM perpetrated by family members is 10.2% in this study, which resonate with the most recent nationwide study on EM in the U.S (Acierno et al., 2010). Acierno and colleagues (2010) reported that the past-year prevalent rate of EM (excluding financial maltreatment) is about 11%, regardless who the perpetrator is. In this study, the prevalence rate of general EM would be much higher if including EM perpetrated by strangers or acquaintances. The prevalence rate in this study is lower than that in Dong's work on EM in Chinese American elders in Chicago (not limited to family perpetrated EM). Dong's PINE study (2014) with a sizable sample (n=3,159) found the prevalence rate among Chinese American elders varied from 13.9% (the most restrictive criterion) to 25.8% (the least restrictive criterion), depending on the definitions of EM occurrence (e.g. the number of "yes" responses to EM indicators). Dong and colleagues (2014) used eight indicators of emotional maltreatment, 17 indicators of financial maltreatment, 10 indicators of physical maltreatment, one indicator of sexual maltreatment, and 20 indicators of elder neglect (i.e. unmet needs). Considering that only 10 EM indicators were used in this study, the comparatively lower prevalent rate was not surprising. The prevalence rate in this study is also lower than that in Dong's work (Dong, Simon, & Gorbien, 2007) in Nanjing, China (35%). However, all participants in the Nanjing study were elder patients from a medical center, which may explain the high prevalent rate of EM in that sample.

The most prevalent form of EM perpetrated by family members is elder neglect (5.3%), followed by emotional (4.1%), financial (2.3%) and physical maltreatment (0.4%). This sequence appears consistent with Dong's study (Dong, 2011; 2013). In Dong's small sample focus group study (2011), caregiver neglect was the most frequently identified form of EM. In Dong's PINE study (2014), elder neglect is the most prevalent form of EM (11.1%), followed by emotional maltreatment (9.8%), financial maltreatment (9.3%), and physical maltreatment (1.1%), when the least restrictive criteria for all form of EM was used (i.e. at least a "yes" response to any indicator). This finding is also in line with the study of Acierno and colleagues (2010). The national study reported that the most prevalent form of EM (past year prevalence) is elder neglect (5.1%), followed by emotional maltreatment (4.6%), and physical maltreatment (1.6%), excluding financial maltreatment.

Associated Factors of EM

Younger age is associated with elder abuse (i.e. emotional, physical, and financial maltreatment) in this study, which is consistent with the two nation-wide studies on EM (Acierno, et al., 2010; Laumann, Leitsch & Waite, 2008) but in contrast to previous findings that older age is associated with EM occurrence (e.g. Dong, Simon, M., & Evans, 2009; Kosberg, 1988; Lachs, Williams, O'Brien, Hurst & Horwitz, 1997; Tatara, 1997). One possible explanation is that EM within families may be "a long-term pattern of interaction between these individuals, and probably began prior to older adulthood" (Acierno, et al., 2010, p. 62). The inconsistent findings may also be explained by the differences in EM definitions, and measurement.

It is found that depressed Chinese American elders are more likely to experience EM, elder abuse and elder neglect, in line with previous studies on EM in Mainland Chinese elders (Dong, Simon, Odwazny, & Gorbien, 2008) and American elders (e.g. Dyer, Pavlik, Murphy, & Hyman, 2000; Lachs, Williams, O'Brien, Pillemer, & Charlson, 1998). Researchers used different scales to measure depression, such as Geriatric Depression Scale (e.g. Dong, Simon, Odwazny, & Gorbien, 2008; Dyer, Pavlik, Murphy, & Hyman, 2000) and CESD (e.g. Lachs et al., 1998), and found the consistent association between depression and EM. It is possible that depressed elders emotionally depend on the family members and their depression symptoms add to the caregiving stress, therefore increase the EM occurrence within families. However, most previous studies as well as this study are cross-sectional research; thus the causal relationship between depression and EM could not be confirmed. A possible fact is that EM may result in and/or worsen depression symptoms (Dong, Simon, Odwazny, & Gorbien, 2008). Further studies are suggested to longitudinally examine the relationship between depression and EM and explore the pathways of EM influencing depression or vice versa. It is possible that verbal maltreatment and neglect are two EM forms that directly influence depressive symptoms (Yang, 2004).

Hypothesis 1(a) that Chinese elders' perceived importance of family support is negatively associated with EM was supported. As hypothesized, Chinese elders lacking family cohesion (i.e. less importance of family support) are more likely to experience general EM, elder abuse and elder neglect. To the best of our knowledge, this study is the first of its kind that quantitatively examines the relationship between family cohesion and EM among Chinese and Chinese American elders. Hypothesis 1(b) was not supported.

The findings indicated that elders with larger family support network are more likely to experience general EM and elder neglect, which is not in the hypothesized direction. Previous quantitative studies measured "social support" (or social network size) and found the negative associations between social support and EM occurrence. For example, lack of social support is found to be associated with EM in Chinese elders (Dong & Simon, 2008) and in American elders (Acieno, et al., 2010) when using Social Support Instrument (SSI) from the Medical Outcomes Study (e.g. "someone available to give you good advice in a crisis" on a Likert scale from "none of the time" to "all of the time"). In this study, the three items measuring family support network asked about the number of perceived supportive relatives both in the U.S. and in the home country. One speculation is that an immigrant elder may have a large number of supportive relatives in the home country but not many supportive relatives in the U.S. Supportive relatives in the home country may provide emotional support (e.g. talking about private matters via phone) but be too far away to provide instrumental support. Even with a high score in the family support network scale, the elder may still feel neglected by family members either in the home country or in the U.S. Thus, the result that larger family support network is positively associated with elder neglect is not surprising. Another speculation is that Chinese American elders with a large number of perceived supportive relatives may heavily rely on the interdependence within families and have higher "cultural expectations" for family support. "There is a long history in which the Chinese family functions as a close-knit social unit from which its members draw on each other's resources for meeting psychological, social, and physical needs" (Cheng & Chan, 2006, p. 262). In the Chinese history, elders were taken good care of by the young family

members with "minimal state interventions" (Cheng & Chan, 2006, p. 262). Parents sacrifice a lot for the well-being of their children. When they get old, they may take for granted that a filial adult child should visit/greet them frequently and provide emotional, financial support and instrumental support when they are in difficulties. For example, with transportation and language barriers, Chinese American elders may expect to be accompanied by one or more adult children in a hospital or clinic, rather than seeking help from service professionals. When elders are in financial hardships, they may expect family members to help pay medical bills, rent or food together. When such expectations are unmet by any family member, Chinese elders may feel neglected by him/her, under the influence of Confucian teaching. Considering that elder neglect comprises 52% of all EM cases in this study, it is understandable that larger family support network is also positively associated with general EM.

Hypothesis 2(a) was not supported. It seems that traditionalism is not significantly associated with EM. However, it is possible that the influence of traditionalism was not detected in this study when the small homogeneous sample may lack variance in traditionalism. The majority of survey participants were Chinese-speaking immigrant elders living in senior apartments. Their traditional Chinese cultural beliefs may not have essential differences. Hypothesis 2(b) that Chinese elders' assimilation to American culture is positively associated with EM was partially supported. It seems that more acculturated Chinese elders are more likely to experience elder abuse and general EM, which is in the hypothesized direction. One speculation is that acculturated Chinese American elders have higher levels of EM awareness and are more likely to report EM in this survey study. Less acculturated Chinese elders may feel ashamed to disclose their

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EM experiences even though in the self-administered anonymous survey. Another speculation is that adult children, spouse or family's adherence to traditional Chinese culture may affect their attitudes and behaviors toward elders, therefore prevent the occurrence of EM. Elders' own traditional beliefs may not protect themselves from EM. Similarly, elders' high acculturation levels may not increase the risks of EM. It is possible that the intergenerational acculturation/cultural differences within families, not the acculturation level or traditionalism of elders, lead to the family tensions, and therefore the occurrence of elder abuse. The average years of residency in the U.S. for the eleven emotionally, financially or physically abused elders is about 30 years, much longer than the mean years of residency of the whole sample (18 years). This group of Chinese elders ("old immigrant elders") may have larger acculturation differences with the adult children, compared to that of "new immigrant elders". It is very likely that old immigrants' children are born or educated in the U.S. and may have little adherence to Chinese culture or Confucian teaching. These adult children may not understand or meet the cultural needs/expectation of their elder parents, such as children's respect and obedience. The intergenerational acculturation or cultural differences may directly lead to the occurrence of emotional maltreatment or other forms of elder abuse. This explanation is in line with the Latino EM model (Parra-Cardona et al., 2007). Whether the intergenerational cultural/acculturation differences surpass the influence of traditional Chinese culture or American culture need to be confirmed in future research.

Guided by the ecological theory and the Latino EM model, this study investigate EM prevalence and its association with family support (meso-/exo- system) and cultural variables (macrosystem) from the perspective of Chinese older adults. Future research

may focus on the risk factors of elders, family perpetrators and family as a whole (tri-foci) and develop a comprehensive conceptual model to understand EM in Chinese population under the guidance of the ecological theory (hereinafter referred to as Chinese EM model). Focusing on elders alone cannot reveal the effects of interdependence or intergenerational culture/acculturation differences within Chinese American families.

In the microsystem, a comprehensive Chinese EM model should include perpetrators' characteristics (e.g. stress and mental health status) and family's characteristics (e.g. family history of violence, family's attitudes toward authorities and intergenerational culture differences) as suggested by the Latino model. It is very likely that the influence of intergenerational culture differences surpasses the influence of Chinese culture or American culture, which should be confirmed in future research. Elders' health status could not be assessed solely via self-report. Physical examinations and other objective assessment may also be used to capture the health status of elders (Sooryanarayana, Choo, & Hairi, 2013).

The meso-/exo- system should focus on the perceived availability and importance of informal and formal social support. It would be valuable to comprehensively assess social support of elders and family perpetrators, including both instrumental support and emotional support. This study only counted the number of supportive family members and did not differentiate between emotional and instrumental support. It is very likely that Chinese elders may feel neglected if lacking any of the two kinds of support.

In the macrosystem, "anti-immigrant climate" in the U.S. (Parra-Cardona, Meyer, Schiamberg & Post, 2007) and political guidance on family life (e.g. frequent visits from children) in the home country may be included in the Chinese EM model. It is worth

mentioning that elders' traditional beliefs regarding family relationship may not directly influence the occurrence of EM within families.

For the Latino EM model, researchers are suggested to validate the protective effects of Latino culture (e.g. "familismo") on EM. The influence of intergenerational cultural differences should also be replicated. The effect of availability and importance of informal support should be tested respectively. This study may also inform EM study in other Asian ethnic groups in the U.S. Heavily influenced by Confucian teaching, Korean and Japanese elders may have similar cultural understanding of family relationship and gender role, immigrant experiences and perceptions of EM. The influence of traditional culture and acculturation on other Asian ethnic groups need to be examined in future studies.

Intervention/Practice Implications

EM Screening and Assessment

The 10-item EM screening assessment tool developed in this study is both culturally and linguistically appropriate and may aid Chinese elders themselves, family members, social workers, physicians, APS workers and others to quickly identify the incidence of EM among Chinese American elders. The screening assessment tool was derived from existing scales, and then revised with the feedback of focus group interviews, expert reviews and findings of the pilot study. Particularly, the investigator did not impose the definition of EM on focus group participants, but let participants construct the meaning of EM occurrence.

Service professionals such as physicians and social workers have the legal and ethical responsibilities to report EM cases, such as physicians and social workers, but

face barriers in reporting EM cases in practice (Ahmad, & Lachs, 2002). For example, physicians' report only comprised 2 % of all reported EM cases (Lachs, & Pillemer, 2004; Rosenblatt, Cho, & Durance, 1996) and their barriers of reporting are mostly related to the lack of EM knowledge (e.g. awareness, risk factors, screening assessment tools) (Ahmad, & Lachs, 2002; Mosqueda, & Dong, 2011). Social workers also have difficulties in collecting ample evidence in starting an EM investigation. For example, family members or elders may minimize the severity of EM cases while the threshold for an investigation is rather high (Schmeidel, Daly, Rosenbaum, Schmuch, & Jogerest, 2012). Moreover, social workers may misinterpret the behaviors of suspected family members because of the cultural and language differences (Donovan & Regehr, 2010). The service system and professionals need to be aware of the cultural definitions of EM, particularly elder neglect and emotional maltreatment, adjust the threshold of investigation to the needs of different ethnic groups and use culturally and linguistically appropriate screening assessment tools to assess EM cases. Service professionals may use this screening assessment tool as a guide to assess EM occurrence in Chinese Americans.

Implications for EM Prevention

Currently, cultural competent EM preventions or interventions available for Chinese American elders are rare. Before suggesting any possible EM preventions (institutional approach) or interventions (residual approach), we should note the differences among elders' residing places. First, special attention should be paid to Chinese Americans not living in ethnic enclaves. The sample in this study was selected from Chinese elders living in Phoenix where an increasing number of Chinese Americans live, and no organized ethnic community exists. The results of this study in Phoenix have

greater applicability to Chinese Americans dispersing throughout other regions in a similar manner, compared to previous research conducted in major cities where a large number of Chinese people are concentrated in culturally exclusive communities, such as Chicago with its large Chinese population residing in Chinatown. Second, differences between elders living in senior apartments and those living in non-age restricted community should be noted. Most survey participants in this study (73%) lived in senior apartments that mainly accommodate Chinese American elders, while the rest participants lived in the community widely spread across Phoenix. As this study indicated, elders living in senior apartments are of older age, have lower income, and lower education. Further EM interventions and services may tailor to the special needs of elders living in senior apartments. Moreover, professionals need to pay particular attention to the protection of privacy in senior apartments where almost everyone knows each other. We also need to ensure future EM programs and services accessible to Chinese American elders spreading out in the community. A possible method is to advertise and provide services in the Chinese Cultural Center, the Chinese Senior Center, and other institutions and clubs.

Findings of this study indicate that the concepts of elder maltreatment, elder abuse, and elder neglect are unfamiliar to Chinese American elders. Public-awareness campaigns are often used to promote EM awareness, prevent the incidence of EM and encourage reporting of suspected EM, which may include "the placement of flyers with information about elder abuse in prescription bags in pharmacies and stickers on Meals on Wheels containers and distributes brochures to senior centers, congregate meal sites, and doctors' offices" (Pillemer et al., 2007, p. 248). For Chinese Americans, bilingual

flyers, brochures, or other informative materials (in simplified Chinese, traditional Chinese and English) are suggested to be placed in senior apartments and other locations/events accessible to Chinese American community, such as the Chinese Cultural Center, Chinese Cultural Week, Asian supermarkets, and Chinese restaurants. Besides mandatory reporters, family members, friends, neighbors, or everyone in the community could serve as "gatekeepers" and protect elders from EM.

Our findings suggest that promoting elders' traditional beliefs may not necessarily prevent EM occurrence in Chinese American population. Service programs or preventions may help build "bi-cultural" identities of both parties (elders and their adult children). On one hand, we need to promote Chinese cultural beliefs that may have a protective role against EM (e.g. filial piety) while encourage elders to become acculturated to the United States (e.g. English literacy, adoption of American lifestyle, becoming bicultural and bilingual). On the other hand, service professionals need to help reduce and mediate the intergenerational acculturation/culture differences within Chinese American families. Besides, managers at senior apartments, Chinese Culture Center, and other stakeholders in the community should watch carefully when observing tremendous intergenerational culture/acculturation differences and lack of family cohesion in Chinese American families in order to prevent EM incidence. An ideal way to prevent EM is to do a cultural family background check when elders first register at Chinese Senior Center or senior apartments, or first enter the health service system. Community-based EM practices and interventions may also address the depression of Chinese American elders. Depression could be a predictor, or/and an outcome of EM in this population.

EM education programs have also been developed for nurses, social workers, APS staff and other professionals that may serve older adults (Anetzberger et al., 2000; Richardson, Kitchen, & Livingston, 2002; Wilke & Vinton, 2003). The effectiveness of such programs have been evaluated in previous literature (Richardson, Kitchen, & Livingston, 2002). It is worth mentioning that although a wide range of education programs were designed for professionals, "no studies have been conducted regarding whether education of professionals leads to outcomes of any kind for elder victims, including prevention" (Pillemer, Mueller-Johnson, Mock, Suitor, & Lachs, 2007, p. 248). Future education programs for professionals may cover cultural components (e.g. emphasis of family cohesion) to prevent EM occurrence in Chinese American elders and other ethnic minority elders. Such programs should be evaluated by outcomes of elder clients through evidence-based studies.

In Mainland China, mandatory reporting or EM laws do not exist. Elder Chinese immigrant's cultural understanding of EM (particularly emotional maltreatment and elder neglect) may vary differently with the American legal systems or American service professionals. In education programs including posters, courses and presentations, Chinese immigrant elders must be informed of such differences as soon as possible to prevent EM. Particularly, education programs are strongly advocated to cover the content of American EM law and EM-specific formal services, and the significance of reporting suspected cases (Lee, & Eaton, 2009; Moon, & Benton, 2000). Considering Chinese elders' emphasis on family cohesion, family members (particularly U.S.-born adult children) should also be included in education programs to understand the cultural needs of elder parents (e.g. frequent visits) and the importance of intergenerational

"harmony" in EM prevention. To avoid financial maltreatment, education programs may also teach immigrant elders how to deposit/withdraw money in American banks, how to transfer money internationally and the basic tax knowledge in the U.S.

Implications for EM Intervention

When EM is identified as a crime, social workers need to work with law enforcement, bank staff, APS workers, or family members to help elder victims. Considering that emotional maltreatment and elder neglect perceived by Chinese American elders may not violate American law, law enforcement and APS workers may not investigate and intervene in such cases. However, culturally competent social workers should intervene because the two forms of EM may have severe emotional outcomes in this population, such as depression and suicide (Dong, 2005). Counselling and referrals are two common forms of intervention when EM is not seen as a crime (Brownell & Wolden, 2002). Social workers may link victims and perpetrators with "sustainable community resources" and identify available EM-specific services to reduce the risks of social isolation and dependency of elders on perpetrators (Mariam, McClure, Robinson, & Yang, 2013).

Besides referral services, a psycho-educational support group, designed for elder victims of EM in the family setting could be provided to Chinese elders. The curriculum of the support group may include American EM law, EM-specific formal services (Lee, & Eaton, 2009; Moon, & Benton, 2000), the significance of reporting, coping with depression, access to services, the strategies to discuss EM with family perpetrators, etc. (Brownell & Heiser, 2006; Lee, & Eaton, 2009). Support groups may also lower victim elders' depression or other emotional problems (Comijs, Penninx, Knipscheer, & van

Tilburg, 1999), and to increase mutual emotional/instrumental support among Chinese American elders. Taking into account the possible unwillingness of elders to participate, bicultural group facilitators could be identified to help recruit and organize the support groups, such as social workers at senior apartments and elder community leaders (Lachs & Pillemer, 2004). Support groups are suggested to be conducted at senior apartments or Chinese Senior Centers to increase the accessibility to Chinese elders.

Considering the most prevalent form of EM within Chinese American families is elder neglect and the most prevalent EM indicator is verbal attack, social work interventions on EM perpetrators may focus on training and support. EM training on family perpetrators could cover knowledge of aging and caregiving, anger management (e.g. triggers and arousals), access to services (Reay & Browne, 2002; Scogin et al, 1989), the cultural needs of Chinese elders and the strategies to discuss the suspected EM between them and elder victims (Lee, & Eaton, 2009; Moon, & Benton, 2000). Support programs such as housekeeping and respite care could be provided to abusive caregivers to relieve the caregiving stress, therefore to lower the risks of EM within families (Pillemer el al., 2007).

Training programs could also be combined with a home visit program (Davis, Medina, & Avitabile, 2001; Davis & Medina-Ariza, 2001). In the study of Davis and colleagues (2001), the home visit program included the home visits of police officers and social workers to prevent the recurrence of EM. The social workers informed the victims of their legal rights and available resources; the police officers warned the perpetrators that the household was monitored. The control group in the education program receives no treatment while the intervention group in the home visit program gets routine patrol

service and a letter. Contrary to the intuition, for those receive both EM education and follow-up home visits, the number of reporting (or EM recurrence) are highest both in the 6-month and 12-month follow-up assessment. One possible explanation is that people who have received both interventions are more willing to contact the police. The major methodological limitations include that the treatments may diffuse into the control groups, and that the baseline differences of the two groups are not controlled (e.g. ethnicity) (Ploeg et al., 2009). Though lacking evaluations in evidence-based studies, an education program combined with a home visit program may be cost-efficient for Chinese elders residing in senior apartments. The cost of educational posters, courses and presentations and home visits would be minimal when elders concentrate at one place. The home visits of police officers may also build the trust and reduce the cultural concerns of reporting in Chinese American elders (e.g. shame to disclose and distrust toward authorities) (Dong, Chang, Wong, Wong & Simon, 2011). Police department in communities with large Chinese elder populations need to have Mandarin and Cantonese language hotlines in order to lower the linguistic and cultural barriers preventing elders from making the reports.

To prevent the reoccurrence of financial maltreatment, social workers, lawyers, and physicians may build an interdisciplinary team to help victim elders identify a surrogate decision maker (Lachs & Pillemer, 2004). The surrogate decision maker could be a trusted family member or friend who can help manage financial affairs and behave in the best interest of the elder. The surrogate decision maker may regularly check elders' bank account for financial safety, help collect pension and rent in the home country, and manage tax and medical insurance (e.g. Medicaid/Medicare). Identification of a surrogate

decision maker could be done with a completion of an advance directive (AD) (Lachs & Pillemer, 2004). An AD is written documents about "the type of medical treatment people wish to receive or any legal arrangements for designations of a decision maker" when an elder is functionally incapable due to health problems (Gao, Sun, Ko, Kwak & Shen, in press). Chinese American elders knows more about the role of ADs in medical decision-making (about 95%) but less about the role in financial management (about 60%) (Gao, Sun, Ko, Kwak & Shen, in press). Completing an AD could not only eliminate elders' end-of-life care concerns but also prevent the occurrence/reoccurrence of financial maltreatment.

Policy Implications

For Chinese American elders, culturally and linguistically appropriate interventions are urgently needed to protect them from EM. In the U.S., the Older American Act, the Violence Against Women Act and the newly released Elder Justice Act (EJA) are the three federal laws that are responsible for the funding of EM programs. The Older American Act funds the National Center on Elder Abuse to support the state justice system to promote EM programs. The Violence Against Women Act "authorizes the attorney general to formulate grants to enhance training and services to end violence against and abuse of older women" (Dong, & Simon, 2011, p. 2460). The EJA, part of the Affordable Care Act, may open a window of opportunity for the funding of EM interventions and research. According to Dong and Simon (2011),

> The EJA has authorized $777 million funding over 4 years and immediate
> appropriation is particularly important, because the APS will garner significant

funding to bolster its direct services to persons experiencing elder abuse. Recently, a survey in 30 states reported that 60% of APS programs have faced budget cuts on average 14%, while two-thirds of the APS programs reported an average increase of 24% in elder abuse reports. A recent letter from the Leadership Council of Aging Organizations urged the Senate and House Subcommittee on Labor and Health and Human Services and Education to fully appropriate the EJA. (p. 2461).

This study, along with other research on EM among ethnic minority elders, may uncover EM in ethnic minority groups, a severe social problem that receives little political attention. Professionals, policy advocates and politicians, EM victims need to increase public EM awareness and promote the real change in American elders' lives (Jirik, & Sanders, 2014). Policy advocates may use the research results to urge legislators to fully appropriate Elder Justice Act and to open new funding opportunities to encourage the development of culturally competent EM interventions.

Research Implications

Future research may use the screening assessment tool developed in this study and replicate the study in other cities or rural areas in the U.S. The validity and reliability of this EM screening assessment tool may also be tested in Greater China Region. The screening assessment tool may be revised after taking into account the ethnic and rural-urban differences in perceptions of EM in Mainland China. The 10-item screening assessment tool (yes or no responses) is a simple and quick way to detect EM in practice. Future studies may develop a more comprehensive scale to systematically detect EM in Chinese and Chinese Americans. Likert scales may be used to indicate the frequency of EM occurrence and its severity. Future studies may also investigate the relationship

between EM victims and perpetrator (e.g. strangers, acquaintances, relatives) and reveal who the most likely perpetrator is for Chinese elders. A nation-wide random-sampling EM survey is strongly recommended to uncover the EM problems in Mainland China. The results of a national EM survey would have strong theoretical and practice meanings.

During the frequent contacts with Chinese elders in this study, the investigator noticed that a large number of immigrant Chinese elders are not aware of APS services and has not heard of APS hotline or online reporting. Future studies may investigate Chinese elders' awareness, access and attitudes to EM formal services and authorities, such as APS and police officers. In addition, future studies could extend this study by exploring personal, cultural and structural barriers of EM reporting and patterns of help-seeking in this population. For example, help-seeking preferences (e.g. ethnic community leaders, religious staff, and social workers at senior apartments, other family members) could be explored.

Other types of EM, such as sexual maltreatment at home and institutional EM in Chinese Americans could be explored in future studies. Sexual maltreatment is the most difficult type of EM to detect because of the shame/embarrassment of reporting, cognitive impairment of victims and the presumed assumption that elders "cannot be an object of sexual desire and abuse" (Rosen, Lachs, & Pillemer, 2010, p. 1073). Discussing sex-related issues is also a cultural taboo for Chinese people (Zhang, Li, & Shah, 2007). In Dong's PINE study (2014), one single indicator "touching your private area when you did not want this" was used to detect sexual maltreatment in Chinese American elders. Studies are urgently needed to comprehensively understand Chinese elders' perceptions of sexual maltreatment, for example, whether telling dirty jokes constitutes sexual

maltreatment and whether gender differences exists in their perceptions of sexual maltreatment. Developing a linguistically and culturally appropriate scale to assess sexual maltreatment in this population is the second step. Reluctance of respondents and socially desirable responding should be considered. Bicultural interviewers with necessary interview skills may reduce the reluctance of Chinese American elders.

Although the fellow residents are the most likely perpetrators in the institutions (Rosen, Lachs, & Pillemer, 2010), resident-to-resident aggression (RRA) in nursing home and assisted living facilities has been ignored in the U.S. (Rosen, Pillemer, & Lachs, 2007). Literature on RRA among ethnic minorities in the U.S. and in the Greater China Region are even sparse. Particularly, resident-to-resident sexual maltreatment is hard to detect. Though female elders are considered traditional victims of sexual maltreatment in facilities, one study pointed out that male elders (aged 50 or above) are potential victims of sexual maltreatment and that both male and female fellow residents are possible perpetrators (Teaster, et al., 2007). Future research may investigate the prevalence and risk factors of RRA among Chinese, Chinese Americans and other ethnic minority groups and design linguistically and culturally appropriate preventions and interventions for RRA.

Limitations

This study has several limitations. First, with limited budget and time, this study only included the risk factors of older adults, the possible EM victims, but excluded the risk factors of potential perpetrators. Thus, characteristics of perpetrators and the differences in the acculturation levels are not identified.

Second, this is a cross-sectional explorative study, neither epidemiological nor etiological. Given this nature, we cannot draw definitive conclusions about cause and effect. In future studies, longitudinal research design is needed to include the possible predictors and outcomes of EM.

Third, this study used non-random sampling strategy to recruit Chinese elders in Phoenix. The sample may be not representative and have selection bias. Moreover, this study may be not generalizationable to Chinese American older adults concentrated in culturally exclusive communities (e.g. Chinatowns). Results of this non-random sampling study should be interpreted with caution.

Fourth, the small sample size of this study (n=266) may lack statistical power to detect the significant associations between risk factors and EM. The sample size was calculated based on the estimated prevalence rate of general EM among Chinese elders (30%), as suggested by previous literature (Dong, Simon, & Gorbien, 2007; Dong, 2013). A replication with a larger sample size is needed.

Fifth, the EM screening assessment tool was scored dichotomously and the investigator only assessed the EM occurrence (yes/no) in the past year. Future studies may use Likert scales to assess the frequency of EM occurrence and its severity.

Last, this study excluded elders with severe dementia or cognitive impairment. Previous studies indicate that dementia and cognitive impairment are risk factors of EM (e.g., Lachs, Williams, O'Brien, Hurst & Horwitz, 1997; Lachs, & Pillemer, 2004). But the research design of this study (focus group discussions and surveys) inevitably excluded this vulnerable group of elders. Future studies targeting caregivers or service

professionals in institutions are urgently needed to detect EM among Chinese American elders with severe cognitive impairment.

Conclusions

In the end, one of ten Chinese American elders experienced general EM perpetrated by family members. The dominant forms of EM, elder neglect and emotional maltreatment, may have serious emotional outcomes and threaten the well-being of Chinese elders. To prevent the occurrence and recurrence of EM, service professional and gatekeepers in the community need to work with Chinese American families to reduce elders' depression levels, promote family cohesion and eliminate the intergenerational culture/acculturation differences. The investigator calls for public EM awareness campaign, evidenced-based EM preventions and interventions in Chinese American population. Culturally and linguistically appropriate education programs, support programs, home visit programs, and AD planning programs are strongly advocated. Future research may develop a comprehensive Chinese EM model to fully understand EM from an ecological perspective, and replicate this study in other geographic areas in the U.S. or in Greater China Region. Culture should never be used as an excuse for government inaction on EM or other health problems in a specific ethnic minority group. Researchers, policy makers and service professionals should be alert to the fact that oppression or health disparities may "take place in the name of culture" (Marsiglia & Kulis, 2009, p.199).

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APPENDIX A

FOCUS GROUP INTERVIEW GUIDELINES

Please use fake names when describing events or situations.

1) Could you share your ideas on what constitutes EM?

2) How common do you think EM is in your community?

3) Based on your experiences, who is more likely to be a victim of EM?

4) Some say that Chinese elders are more likely to be abused. What do you think?

5) Is this survey understandable? Are you willing to respond to the questions?

6) Is there anything else that you want to share with us?

Read four pseudo EM case and ask for elders' opinions.

APPENDIX B

PSEUDO VIGNETTES

1. Emotional Maltreatment

   Mr. Lee is a 65-year-old gentleman living in his son Xiaogang's house. Mr. Lee immigrated to the U.S last year per the request of Xiaogang to take care of the new-born baby. Xiaogang screamed at Mr. Lee after he forgot to flush the toilet for the second time. Do you think Xiaogang's behavior is an example of elder maltreatment? Why or why not?

2. Neglect

   Mr. and Mrs. Xie live together at an independent senior housing in Phoenix. They immigrated to the U.S. one year ago. They cannot speak English and don't have vehicles. Their daughter Mimi has a full-time job and three young children. She helped them get food stamps and then refused to provide any help to them. She has neither visited nor called them till now. Do you think Mimi's behavior is an example of elder maltreatment? Why or why not?

3. Financial Maltreatment

   Ms. Wang is a 75-year-old lady who is living alone at an independent senior housing in Phoenix. Ms. Wang lost her husband five years ago, and her daughter Meili is taking care of her finance. Recently, Meili took out money from her mother's account to buy a laptop for her 15 year-older son without letting her mom know. Do you think Meili's behavior is an example of elder maltreatment? Why or why not?

4. Physical Maltreatment

   Ms. Zhang is a 60-year-old lady who is living with her husband Mr. Zhang in their own house. Mr. Zhang was recently diagnosed of diabetes and was in bad

mood. He sometimes pushed Ms. Zhang and made her fall into the floor. Do you

think Mr. Zhang's behavior is an example of elder mistreatment? Why or why

not?

APPENDIX C

DRAFTED EM ASSESSMENT TOOL

Please indicate whether or not you have experienced any of the following **in the past year**.

1 Have any of your family members taken things that belong to you without your OK?	T	F
2 Have any of your family members demanded for goods in exchange for services?	T	F
3 Have any of your family members stopped you from getting your money or knowing about it?	T	F

4 Have any of your family members tried to restrain you by holding you down, tying you up, or locking you in your room or house?	T	F
5 Have any of your family members physically hurt you so that you suffered some degree of injury, including cuts, bruises, or other marks?	T	F
6 Have any of your family members ever hit you with their hand or object, slapped you, or threatened you with a weapon?	T	F

7 Have any of your family members verbally attacked, scolded, or yelled at you so that you felt afraid for your safety, threatened or intimidated?	T	F
8 Have any of your family members destroyed something belonging to you?	T	F
9 Have any of your family members forcefully or repeatedly asked you to do something so much that you felt harassed or coerced into doing something against your will?	T	F
10 Have any of your family members threatened to hit or throw something at you?	T	F
11 Have you felt uncomfortable with any of your family members?	T	F

12 Have any of your family members spent time with you, taking you shopping or to the doctor?	T	F

13 Have any of your family members ever abandoned you in a clinic, hospital, or any other public place?	T	F
14 Does someone in your family make you stay in bed or tell you that you are sick when you know you are not?	T	F

APPENDIX D

SURVEY QUESTIONS

Individual code _____

Language that Interviewee Uses in This Survey: Cantonese   Mandarin   English

Survey on Elder Maltreatment of Chinese Americans Aged 60 and Over

Survey Location:

Survey Date: ___ ___ /___ ___ /___ ___ ___ ___ (mm/dd/yyyy)

Family members are very important to many of us, but sometimes they do things we don't like. These questions ask about negative things family members sometimes do. Please answer as truthfully as you can. You don't have to write down your full name and your answers will not be known to anyone but the research team and will not be used to evaluate you in any way.

PART 1 Demographics

1. Are you
       1   Female
       2   Male
2. What is your age?   __ __ (years)
3. What is your current marital status?
       1   Married
       2   Living with a partner
       3   Widowed
       4   Divorced
       5   Separated
       6   Never married
4. How many children do you have? ____ sons _____daughters
5. Who lives with you? *(Please check all that apply, otherwise leave blank)*
       1 = Alone
       2 = Spouse
       3 = Son/Daughter (including Stepchildren)
       4 = Son-In-Law/Daughter-In-Law
       5 = Grandchild
       6 = Parent
       7 = Other Relative (SPECIFY):_____
       8 = All Others (SPECIFY):_____
6. Where do you live?
       1 Senior housing: a. Henson, b. Ning Kok, c. Memorial Towers, d. Ning Hong
       2 Retirement community
       3 Community (not age-restricted)
       4 Assisted living facilities or nursing homes
7. What is the highest grade or year of regular school that you have completed?
       1   6th grade or lower
       2   9th grade
       3   12th grade
       4   Some college, vocational or trade school
       5   College graduate
       6   Postgraduate or higher
8. In which territory were you born?
       1   USA
       ____Second generation Chinese American (none of your parents were born in the U.S.)
       ____Third or more generation Chinese American (at least one of your

parents were born in the U.S).

       2   Mainland China
       3   Hong Kong
       4   Taiwan
       5   Someplace else (**Specify**: _____)

9. When did you come to the United States to stay for the long term? __ __ year

10. About how much is your monthly household income? Include income from all sources (such as wages, salaries, Social Security, retirement benefits, help from relatives, rent from property, and so forth). Also include the income of people who live with you.

       1       $0-$200
       2       $201-$500
       3       $501-$1000
       4       $1,001-$1,500
       5       $1,501-$2,000
       6       $2,001-$2,500
       7       $2,501-$3,500
       8       $3,501-$4,500
       9       $4,501-or more

11. How much difficulty do you have in meeting monthly payment on your bills?
       1   A great deal
       2   Some
       3   A little
       4   None

PART 2 Physical Health

1. Now I would like to ask you some questions about your health. Overall, how would you rate your health?
       1   Poor
       2   Fair
       3   Average
       4   Good
       5   Excellent

2. The following questions are about activities a person can do during a day. Do you have any difficulty doing these things on your own **because of a health problem**?
       Please choose from:
       1   Cannot do at all
       2   Some difficulty
       3   Can do without any difficulty

	Your choice (1-3)
Walking across a small room	
Bathing (either a sponge bath, tub bath, or shower)	
Personal grooming (like brushing hair, brushing teeth, or washing face)	

Dressing (like putting on a shirt, buttoning and zipping, or putting on shoes)	
Eating (like holding a fork, cutting food, or drinking from a glass)	
Getting up from a bed to a chair	
Using the toilet	
Use the telephone (including looking up numbers and dialing)	
Drive your own car or travel alone on buses or taxis	
Go shopping for groceries or clothes without help (take care of all shopping needs yourself, assuming you had transportation)	
Prepare your own meals (plan and cook full meals yourself)	
Do light housework (dish washing and bed making, etc.)	
Take your medicine (in the right doses at the right time)	
Handle your money (write checks, pay bills, etc)	
Do heavy work around the house like washing windows, walls and floors	

PART 3 Mental Health

Now I would like to ask about your feelings during the past week. For each of the following statements, please tell me if you felt that way in the past week?

1.   Rarely or none of the time (less than 1 day)
2.   Some or a little of the time (1 to 2 days)
3.   Occasionally (3 to 4 days)
4.   Most or all of the time (5 to 7 days)

	Your choice (1-4)
1. I felt depressed	
2. I felt that everything I did was an effort	
3. My sleep was restless	
4. I was happy	
5. I felt lonely	
6. I felt fearful	
7. People were unfriendly	
8. I feel hopeful about the future	
9. I had trouble keeping my mind on what I was doing	
10. I felt that people disliked me	
11. I was bothered by things that usually don't bother me	
12. I could not get going	

PART 4 Family Support

1. How many relatives do you see or hear from at least once a month? (Including phone contact)

   0 = none   1 = one   2 = two   3 = three or four   4 = five thru eight   5 = nine or more

2. How many relatives do you feel at ease with that you can talk about private matters?

   0 = none   1 = one   2 = two   3 = three or four   4 = five thru eight   5 = nine

or more

3. How many relatives do you feel close to such that you could call on them for help?

    0 = none   1 = one   2 = two   3 = three or four   4 = five thru eight   5 = nine or more

Below are some statements about family cohesion. Please read each statement carefully and circle whether you think the statement is True or False.

		T	F
1.	Compared to others, our family is lacking in intimacy and compassion.	O	O
2.	I get angry when my family tell me how I should live my life.	O	O
3.	Some of my family members' habits irritate me.	O	O
4.	There are many things I do not feel easy about telling my family.	O	O
5.	There are many family photos in my home.	O	O
6.	If I have something to do and expect to be late coming home, I usually let my family know in advance.	O	O
7.	Usually I prefer to be with my intimate friends rather than my family.	O	O
8.	I often have serious clashes of opinion with my family.	O	O
9.	Sometimes I hate my family members.	O	O
10.	During holidays and vacations, I often engage in recreational activities with my family.	O	O

PART 5 Assessment Tool

Please indicate whether or not you have experienced any of the following **in the past year**.

1 Have any of your family members ever taken things that belong to you without your OK?	Yes	No

2 Have any of your family members ever refused to return properties/money he/she helped take care of?	Yes No

3 Have any of your family members ever tried to restrain you by tying you up, or locking you in your room or house?	Yes No
4 Have any of your family members physically hurt you so that you suffered some degree of injury?	Yes No

5 Have any of your family members ever verbally attacked, scolded, or yelled at you so that you felt threatened or despaired?	Yes No
6 Have any of your family members ever forcefully asked you to move from your home?	Yes No
7 Have any of your family members ever threatened to hit or throw something at you?	Yes No

8 Have any of your family members ever abandoned you in a clinic, hospital, or any other public place?	Yes No
9 Have any of your family members never visited you or contacted you? Or been indifferent to you when living with you?	Yes No
10 Have any of your family members ever refused to help you pay medical bills, rent or food when you were in need, even when requested by you?	Yes No

PART 6 Acculturation

Please indicate the degree to which you agree with the following statements.

1= Completely disagree   2= Mostly disagree 3= Neither agree nor disagree
4= Mostly agree 5 = Completely agree

	Your choice (1-5)
1. I speak Chinese more frequently than English.	
2. My English is much more fluent than my Chinese.	
3. I tend to celebrate Chinese holidays (e.g., Chinese Spring Festival,	

Mid-Autumn Day) more frequently than American holidays (Christmas, Thanksgiving)	
4. I watch Chinese TV programs and movies more frequently than English ones.	
5. I read Chinese books or newspapers more frequently than English ones.	
6. I write letters/emails in English more often than in Chinese.	
7. What I eat daily is mostly Chinese food.	
8. Most activities I attend are sponsored by the Chinese communities.	
9. I mainly go to Asian markets for groceries.	
10. I feel at home living in the U.S.	

PART 7 Traditionalism

Below are some statements about traditional beliefs. Please read each statement carefully and circle whether you think the statement is True or False.

		T	F
1.	Parents should tolerate their children's "rebellious" behavior.	O	O
2.	To avoid mistakes in life, the best thing to do is to listen to the elders' suggestions.	O	O
3.	Children do not have to follow their parents' wishes when choosing a partner for marriage.	O	O
4.	No matter who supports the family financially, the man is still the head of the household.	O	O
5.	If a dispute cannot be resolved, a family elder should be invited to act as an arbiter to uphold justice.	O	O
6.	I try my best to listen to my parents out of filial piety.	O	O

The family cohesion scale is adapted from the 10-item Family Orientation subscale of Cross-Cultural (Chinese) Personality Assessment Inventory-2 (CPAI-2). The traditionalism scale is derived from the 15-item Traditionality-Modernity subscale of CPAI-2.

APPENDIX E

FLYERS

ASU College of Public Programs
ARIZONA STATE UNIVERSITY

How to Protect the Rights of Chinese American Elders?

Brief Introduction: In order to evaluate the acts that cause harm or distress to Chinese American elders, Xiang Gao, a Ph.D student at Arizona State University is doing a research on elder maltreatment in Chinese American elders. She sincerely invites Chinese American elders (60+) who live in Phoenix to participate her study!

How to participate: You will be asked to join the focus group discussions or the survey study.

When: December, 2014-March, 2015

Where: Any place that is most convenient for you!

Contact: Xiang Gao   602-476-4046   xiang.gao.5@asu.edu