

Knowledge of advance directive and perceptions of end-of-life care in Chinese-American elders: The role of acculturation

XIANG GAO, M.A., PH.D.,¹ FEI SUN, PH.D., M.S.W.,¹ EUNJEONG KO, PH.D., M.S.W.,²
JUNG KWAK, PH.D., M.S.W.,³ AND HUEI-WERN SHEN, PH.D., M.S.W.⁴

¹School of Social Work, Arizona State University, Phoenix, Arizona

²School of Social Work, San Diego State University, San Diego, California

³School of Social Work, University of Wisconsin–Milwaukee, Milwaukee, Wisconsin

⁴School of Social Work, University of Missouri–St. Louis, St. Louis, Missouri

(RECEIVED January 3, 2015; ACCEPTED April 19, 2015)

ABSTRACT

Objective: This study aimed to describe knowledge of an advance directive (AD) and preferences regarding end-of-life (EoL) care communication, decision making, and designation of surrogates in Chinese-American elders and to examine the role of acculturation variables in AD awareness.

Method: Survey data were collected through face-to-face interviews on a sample of 385 Chinese-American elders aged 55 or above living in the Phoenix metropolitan area. The choice of language (Mandarin, Cantonese, or English) and place of interview (senior apartments, Chinese senior centers, or homes) was at the respondent's preference. Hierarchical logistic regression analysis was employed to examine the influence of acculturation variables on AD awareness.

Results: Some 21% of participants had heard about ADs, and only 10% had completed one. Elders with higher acculturation levels ($OR = 1.04, p < 0.10$) and those residing more than 20 years in the United States ($OR = 6.87, p < 0.01$) were more likely to be aware of ADs after controlling for the effects of demographics, health, and experiences of EoL care. The majority preferred physicians to initiate AD discussions (84.9%) and identified burdens on families as the most important factor in making EoL decisions (89.3%). About 55.1% considered daughters as the preferred healthcare surrogate.

Significance of Results: Acculturation levels influence awareness of an AD, and family values are crucial in EoL care decision making. Cultural factors should be considered in designing and delivering appropriate programs to promote knowledge of EoL care among Chinese-American elders and their families.

KEYWORDS: Chinese-American elders, End-of-life care, Advance directive, Acculturation

INTRODUCTION

End-of-life (EoL) care planning is instrumental in that it helps ensure that persons with terminal illnesses receive preferred care, and it alleviates the stress on their family caregivers. EoL care planning often involves preparation and coordination of vari-

ous tasks, such as initiation of EoL care communication, identification of designated decision makers, and completion of an advance directive (AD) (Kwak et al., 2014). An AD is basically written instructions about the type of medical treatment people would desire to receive or any legal arrangements for designations of a decision maker when they are not functionally capable due to illness (Fagerlin et al., 2002).

Previous research has indicated that a lack of AD knowledge was a primary barrier to AD completion

Address correspondence and reprint requests to: Xiang Gao, Arizona State University, School of Social Work, Mail Code # 3920, 411 North Central Avenue, Phoenix, Arizona 85004. E-Mail: xiang.gao.5@asu.edu

(Ko & Lee, 2010) and that AD knowledge levels varied across ethnic groups (Kwak & Haley, 2005; Murphy et al., 1996; Phipps et al., 2003). For example, African and Latino Americans are less likely to know about ADs than their Caucasian counterparts (Morrison et al., 1998). In a review of literature on EoL decision making (Kwak & Haley, 2005), non-Hispanic white elders tended to have higher levels of AD knowledge than ethnic minority groups.

Although it appears that Asian-American elders also tend to have limited knowledge about ADs, the limited number of studies on specific Asian groups and small sample sizes of each Asian subgroup in existing studies suggest a need for more research on EoL care in this particular group of Asian patients (Kwak & Salmon, 2007; Murphy et al., 1996).

The Chinese-American elder population is one of the fastest growing ethnic groups (Administration on Aging, 2009); however, the literature on their knowledge and completion of ADs or EoL decision making is limited. Although sparse, the extant research suggests that, consistent with other minority populations, Chinese Americans are less likely to complete an AD than their Caucasian counterparts. One study with a sample of Chinese Americans ($n = 80$) living in Hawaii found that 36% of them completed a living will and that 27% had healthcare proxies (Braun et al., 2001). The AD completion rate has been consistently low in nursing home residents, as Vaughn and colleagues (2000) found that 38% of Chinese-American residents ($n = 181$) had completed an AD.

The previous literature has shed some light on the association between acculturation and EoL care among immigrant elders. Defined as “the process of acquiring the cultural characteristics of the new country one migrates to” (Hwang & Ting, 2008, p. 2), acculturation is often measured by immigrants’ lifestyles, their language literacy, and their customs/manners (Huang, 2013). The existing literature on other ethnic minority groups suggests that higher levels of acculturation are associated with more acceptance of discussions about EoL care. For example, acculturated Mexican-American elders are more open to a physician’s disclosure of a terminal diagnosis (Blackhall et al., 1995; 2001), and more acculturated Japanese immigrant elders are more likely to accept EoL care (Bitto et al., 2007; Matsumura et al., 2002).

Considering that four of five Chinese-American elders are foreign born (Gallagher-Thompson et al., 2007), the traditional Chinese cultural values and acculturation levels may directly influence EoL care planning (Fang et al., 2014). More acculturated older Chinese adults may be less likely to adhere to traditional cultural beliefs when it comes to EoL issues

(e.g., the taboo on open discussion of death and dying), and to be more likely to have better English skills and communication with health professionals within the community (Fang et al., 2014), which may increase their capacity to understand and complete an AD. The potential impact of cultural factors, particularly acculturation, on AD knowledge among Chinese-American elders, however, has not yet been examined quantitatively (e.g., Matsumura et al., 2002; Wittenberg-Lyles et al., 2008).

Moreover, in traditional Chinese culture, a conversation about a person’s own death and dying would not be initiated until the person faced a terminal illness. Open discussions about death are regarded as a bad omen (Hall, 1976). Therefore, Chinese immigrant elders may not want to discuss their EoL care preferences with service professionals, quite apart from the fact that most face language barriers (Fang et al., 2014). Moreover, the authoritarian role of physicians in the patient–doctor relationship may inhibit Chinese-American elders from bringing up EoL care (Ho et al., 2010). Rather, Chinese elders may ease up when family members, particularly adult children, are involved in the EoL discussion (Bowman & Singer, 2001).

However, Chinese elders may face the dilemma of choosing to abide by their cultural/family expectations (e.g., prolonging life) or their true wishes (e.g., preferences for hospice care) during the EoL decision-making process (Eleazer et al., 1996). Family-oriented cultural beliefs may inhibit Chinese elders’ desire for their own life-sustaining treatments, as evidenced by Chinese elders who would not choose to avail themselves of artificial life support (Bowman & Singer, 2001). It is valuable to know what factors Chinese elders perceive to be important in their EoL decision making, which has not been answered empirically in the existing literature. Moreover, Asians may be more likely to designate their adult sons as decision makers much more often than their adult daughters and spouses (Hornung et al., 1998). Yet, no current empirical data on Chinese-American elders is available to support these assumptions.

Our study is the first of its kind to quantitatively examine the role of acculturation in AD awareness in Chinese-American elders. The twofold aims of the study are (1) to describe AD awareness, knowledge, and completion, and preferences regarding EoL care communication, decision making, and designation of surrogates in a sample of Chinese-American elders living in the Phoenix metropolitan area, and (2) to examine the role of acculturation variables on AD awareness. We hypothesized that better-acculturated Chinese-American elders would be more likely to know about advance directives.

METHODS

Design

A cross-sectional survey via face-to-face interviews was conducted with Chinese-American adults aged 55 and above ($n = 385$) living in the Phoenix metropolitan area during 2013. The questionnaire was translated into Chinese using a forward-and-back translation process to ensure that the measurement had the same meanings in different languages. The cross-sectional survey questionnaire was piloted with three Chinese elders and then distributed to Chinese-American elders (aged 55 and above) living in the Phoenix metropolitan area. The choice of language (Mandarin, Cantonese, or English) and place of interview (senior apartment, Chinese senior center, or homes) was left to the respondent's preference. The average length of an interview was one hour. Bilingual and bicultural interviewers were trained to fully understand the study purpose and survey contents, and to master the interviewing strategies needed to work with older adults. Institutional review board approval was obtained from a state university in the Southwest. Participants were informed

that receiving the interview was considered their consent to participate.

Sample

The study employed purposive sampling to maximize the variation of demographic characteristics within the sample. Participants were recruited from various settings, such as Chinese senior centers, senior housing facilities, churches, and community groups/events. The inclusion criterion were: aged 55 or older, able to speak English or Chinese, of Chinese descent, and living in the Phoenix metropolitan area. A total of 385 Chinese-American elders participated in this survey study. The average age of participants was 72.4 years ($SD = 8.67$). About two thirds were female; over 70% were married; and a third had an education level below 12th grade. More than half have resided in the United States for more than two decades (see [Table 1](#)).

MEASURES

Awareness, Knowledge, and Completion of AD

Awareness of an AD was measured by one question: "Have you heard of an advance directive before?" (1 = yes, 0 = no). Only those who answered "yes" were asked about their AD knowledge measured on a scale including seven true-or-false statements about advance directive. Examples of these statements include the following: "An advance directive can manage your financial affairs," and "You need a lawyer to complete an advance directive." These items were modified from the AD scale of Murphy et al. (2000). Total scores on this scale range from 0 to 7, with higher scores indicating more accurate knowledge of ADs (Cronbach's $\alpha = 0.79$). Participants who answered AD knowledge questions were asked whether they had ever completed one.

Communication About EoL Care

Participants were asked to indicate whether they ever communicated with physicians and family members about the use of life-support measures (e.g., a ventilator). Sample questions included, "Have you ever spoken with your doctor about the life-sustaining interventions such as a ventilator, CPR, and a feeding tube you would or would not want, if you were seriously ill?" Participants were also asked to rate their comfort level from 1 (very uncomfortable) to 4 (very comfortable) regarding who (e.g., physicians, family members, or themselves) should initiate the EoL care conversation. One example is as follows: "How comfortable would you be if

Table 1. Characteristics of survey participants ($N = 385$)

Variable	N (%) or Mean (SD)
Age	72.43 ($SD = 8.67$)
Female	247 (64.2%)
Education	
Below 6th grade	83 (21.6%)
9th grade	41 (10.6%)
12th grade	63 (16.4%)
Some college, vocational, or trade school	58 (15.1%)
College graduate	105 (27.6%)
Postgraduate or higher	35 (9.1%)
Monthly income	
\$0–208	104 (27.0%)
\$209–416	26 (6.8%)
\$417–833	86 (22.3%)
\$834–1,666	42 (10.9%)
\$1,667–2,499	33 (8.6%)
\$2,500–3,749	25 (6.5%)
\$3,750 or more	61 (15.8%)
Self-rated health	
Poor	11 (2.9%)
Fair	33 (8.6%)
Average	178 (46.2%)
Good	120 (31.2%)
Excellent	43 (11.2%)
Experiences of visiting family/friends in ICU	202 (52.5%)
Experiences of seeing family/friends placed on a ventilator	210 (54.5%)

your doctor initiated the discussion about your end-of-life care?"

EoL Care Decision Making and Designation of Surrogates

Factors important for EoL care decision making were assessed by six items. Participants were asked to rate the importance of the six factors (pain relief, possibility of being cured, religion, financial burden, caregiving burden, and opinions from family members) in their own EoL care decision making (1 = not important at all to 5 = very important). Participants were also asked to indicate how they would prefer the decision to be made (e.g., the decision of one person, or by several people) and who should be involved in decision making (e.g., spouse, son, daughter, and doctor).

Acculturation Variables

Acculturation variables included level of acculturation and years of U.S. residency. The acculturation level of elders was assessed by a 10-item scale that had been previously validated with Chinese Americans (Gupta & Yick, 2001), covering language preference, social customs, and social networks on a 5-point Likert-type scale (from 1 = completely disagree to 5 = completely agree). The total scores ranged from 10 to 50, with a higher score indicating a higher level of acculturation. The Cronbach's alpha for this scale in our sample was 0.88. Data on years of residency in the United States were obtained and categorized to: less than 10 years, between 10 and 20 years, and more than 20 years.

Background Variables

Background variables included demographics (gender, age, education, and monthly household income), self-rated health (1 = poor to 5 = excellent), and previous experience of EoL care, which included elders' experiences of visiting family/friends in an intensive care unit (ICU) (yes/no) and their experiences of seeing family/friends placed on a ventilator (yes/no).

Analysis Strategies

Survey data were entered into an IBM SPSS 21 system for storage and analysis. Descriptive analyses were conducted among variables about EoL care communication and decision making. Correlation analyses were run among variables of interest. Only awareness of AD was chosen as a dependent variable because of the small number of participants who were probed to answer questions about knowledge and completion of an AD. Hierarchical logistic regression analysis was utilized to examine the influ-

ence of acculturation variables on AD awareness. In the first step, demographic variables, self-rated health, and previous experiences of EoL care were entered, followed by acculturation variables in the second step.

RESULTS

Awareness, Knowledge, and Completion of AD

About one of five participants ($n = 80$) had heard about an AD before. Among those who were aware of it, slightly less than half ($n = 38$) had completed an AD. In other words, only 10% of all participants had completed one. Among those who had heard of an advance directive, an average participant answered five of seven questions correctly. They tended to know more about the role of an AD in arrangement of medical treatment (accuracy rate of 95.1%) and less about its role in financial affairs (accuracy rate of 59.3%) (see [Figure 1](#)).

Binary logistic regression was conducted to examine the impact of acculturation on AD awareness. Variables having both statistical and conceptual meanings were entered into the regression models. In the hierarchical logistic regression model, gender, age, education, monthly income, self-rated health, and previous experiences of EoL care were entered into the first model. Those with higher education levels, higher monthly incomes, and experience with ventilators were more likely to know about ADs. In the second model, the acculturation levels and years of U.S. residency were entered. Education and experiences with ventilators remained significant. Elders with higher acculturation levels and those residing more than 20 years in the United States were more likely to have an awareness of advance directives (see [Table 2](#)).

Communication About EoL Care

Many more participants discussed their preferences for use of life-sustaining interventions with their family members (23%) than with their physicians (6%). More than 80% of participants would be comfortable if their physicians initiated the topic (84.9%) or their family members did so (82.8%). A smaller percentage of participants reported that they would be comfortable with initiating the topic themselves with physicians (62.9%) or with their families (70.7%).

EoL Decision Making and Health Surrogates

When asked about how medical decisions (e.g., CPR, feeding tubes, ventilators) should be made when they

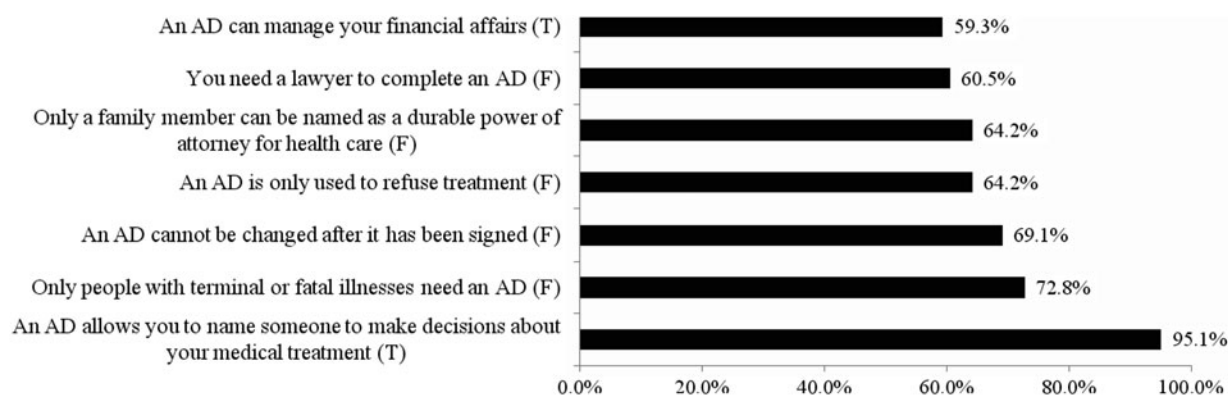


Fig. 1. Accuracy rates of knowledge of advance directives among those who have heard of ADs before ($N = 80$).

were too ill to decide for themselves, about half answered that several people would decide together: 28.1% said only one person would decide, and 15.8% said that more people would be involved, but that one person would make the final decision. The decision makers in order of preference were daughters (55.1%), sons (49.1%), spouses (45.5%), doctors (15.8%), and others (6.5%).

Concerns about causing burden on families (89.3%) was the most important factor that influenced an elder's preference for EoL care, followed by pain relief (88.8%), best interests in the eyes of family members (86.6%), the possibility of being cured (78.7%), and financial cost (78.3%). Only half the participants considered religious beliefs an important factor in their decision-making process.

DISCUSSION

The findings of our study suggest that Chinese-American elders have limited awareness of advance directives. This is evidenced by the fact that only one of five had heard about an AD before. Among those who had heard, not all of them could correctly describe one. This finding appears consistent with Kwak and Salmon's (2007) work on the knowledge of ADs in a sample of Korean Americans, where one out of five Korean elders was able to correctly describe an AD. It appears that Chinese elders were more familiar with certain aspects of ADs (e.g., arrangement of medical treatment) than others (e.g., the procedures necessary to complete an AD). The low awareness of ADs and unbalanced knowledge of special AD aspects necessitate the need for educating

Table 2. Results of hierarchical logistic regression analysis

Variable	AD Awareness			
	Model 1		Model 2	
	OR	95% CI	OR	95% CI
Gender (1 = male, 2 = female)	1.23	[0.67, 2.25]	1.04	[0.56, 1.95]
Age	1.01	[0.98, 1.04]	1.03	[0.99, 1.07]
Education	1.40***	[1.15, 1.71]	1.49***	[1.19, 1.88]
Monthly income	1.15**	[1.01, 1.33]	0.84	[0.68, 1.04]
Self-rated health	1.11	[0.79, 1.54]	1.07	[0.75, 1.51]
Experiences of visiting family/friends in ICU ¹	1.06	[0.55, 2.03]	0.94	[0.47, 1.87]
Experiences of seeing family/friends placed on a ventilator ²	3.78***	[1.87, 7.62]	3.81***	[1.83, 7.95]
Cultural factors				
Acculturation			1.04*	[0.99, 1.08]
Residing more than 20 years in the United States ³			6.87***	[2.38, 19.82]
Residing between 10 and 19 years in the United States ³			2.41	[0.81, 7.19]
-2 Log-likelihood	317.90		295.75	

Note. * $p < 0.1$ (two-tailed). ** $p < 0.05$ (two-tailed). *** $p < 0.01$ (two-tailed).

¹Reference group is those who did not have experiences of visiting family/friends in ICU.

²Reference group is those who did not have experiences of seeing family/friends placed on a ventilator.

³Reference group is those who lived less than 10 years in the United States.

Chinese elders on all the possible functions of an AD and the procedures necessary to complete one.

Similarly, the Chinese-American elders had a low AD completion rate (less than 10%). This percentage was much lower than that in a sample of older Caucasian Americans recruited from New York City (59.2%) (Ko & Lee, 2010) and that in a sample comprised of Caucasian, Latino, and African-American older adults (35%) in another New York study (Morrison & Meier, 2004). However, this rate is slightly higher than that among Korean-American adults aged 65 or older (5.4%) (Ko & Lee, 2010). It could be that our study had a larger proportion of acculturated adults age 55 to 64 than the study on Korean Americans.

People who had higher educations, previous experiences of seeing family/friends placed on a ventilator, higher acculturation levels, and longer U.S. residency were more likely to be aware of ADs. The advance directive was developed in Western culture to facilitate EoL care decisions (Fagerlin et al., 2002). Thus, more acculturated Chinese elders or those living in the United States for an extended period of time may have more opportunities and less language barriers to learning about ADs, as well as exposure to English-speaking media. Moreover, the more acculturated group may be less susceptible to the impact of traditional Chinese culture, which views discussions about EoL issues as a cultural taboo, and they may thus be open to receiving information about EoL knowledge from various sources. When helping Chinese-American elders with EoL care preparation, it is important to see the impact of education and previous exposure to EoL care as well as the role of acculturation.

The lack of awareness of EoL care is also manifested by communication patterns with respect to EoL care in Chinese-American elders. They appeared to lack initiative in seeking AD knowledge or discussing EoL care with their physicians or family members. Their avoidance of this topic could be due to their cultural beliefs on death and dying: "Even for those who are dying, discussion about death is avoided because it is believed that such talk may hasten the pace of the dying process or even cause death prematurely" (Xu, 2007, p. 412). Despite their reluctance to begin EoL conversations, the majority of participants in our study preferred to have physicians initiate these discussions, which is consistent with a previous study of Asian Americans that recognized the "paternalistic role" of physicians in EoL care communications (Ho et al., 2010). Chinese immigrant elders tend to accept the paternalism of physicians, emphasized in Confucian teaching, which is in conflict with the idea of patient autonomy emphasized in American culture.

Regarding the most influential factors for their EoL decision making, Chinese elders ranked family values first. Due to strong family beliefs and the collective interest in Chinese culture, concerns about causing a burden for their families appeared to be the deciding factor that impacted their preference for EoL care. Relatively, religious beliefs were perceived to be less important in EoL decision making, which could be related to the fact that 42.9% of Chinese-American elders reported they did not have any religious beliefs. This is consistent with a finding suggesting that about half of Chinese Americans lack religious beliefs (Lugo et al., 2012).

The most likely designated decision makers for Chinese-American elders are adult children, which is consistent with one study on Cantonese-speaking elders in Canada ($n = 40, 65+$) (Bowman & Singer, 2001). The family-centered beliefs in Chinese culture emphasize adult children's responsibilities for elder care. Surprisingly, daughters are the most likely designated decision makers, which is inconsistent with a prior study on physically frail Asian elders, which suggested that adult sons were the most likely designated decision makers (Hornung et al., 1998). The Hornung study focused on nursing home-eligible elders, whereas participants were of better health and had less physical limitations in our study. Such differences in physical health status may explain the differences in the most likely healthcare proxies. Frail elders may be more dependent on their adult sons for help with physical needs (e.g., moving heavy medical equipment), while healthy older adults may consider adult daughters most eligible and trustworthy to act in their best interests, as daughters often take up the primary caregiving roles within the family. Another possible reason is that immigration to the United States may have weakened some older adults' beliefs in patriarchy and preferred reliance on sons.

Several limitations of this study should be noted. First, the study used a nonprobability sample recruited from ethnic Chinese elders residing in Phoenix. Despite the effort to maximize variation of sample characteristics, the results of our study may not be applicable to older Chinese Americans from other geographic regions. Second, this cross-sectional study examined the risk factors of AD awareness but did not identify its predictors over the long term. Third, the study did not probe into the correlates of AD knowledge levels or completion of AD because only a small proportion of participants reported that they had heard of ADs. Admittedly, promoting awareness of and increasing knowledge of ADs are inseparable goals in community outreach or interventions, and further studies should examine the factors associated with AD knowledge.

This study examined the perceptions of EoL care, including AD awareness, knowledge, and completion, communication about EoL care, and EoL care decision making, and identified the role of acculturation in AD awareness among Chinese-American elders living in Phoenix. It suggests that this minority population lacked awareness of ADs, or had limited knowledge of them. Higher education, previous experiences with ventilators, higher acculturation levels, and longer U.S. residency were associated with AD awareness. Typically, they would not initiate the dialogue on EoL care with their physician or family members. Adult daughters were the most frequently reported designated decision makers, and concerns for burdens on family members were a pivotal factor for elders' decisions on EoL care.

It is recommended that health service professionals develop awareness campaigns targeting this minority population to provide AD knowledge and to involve family members (particularly adult children) in such educational programs. The awareness campaigns or educational programs should consider the unique needs of Chinese-American elders of differential levels of education and acculturation, and target both Chinese elders and their families. Educational programs are suggested to cover knowledge domains that Chinese Americans need most, such as the functions of an AD and the procedures necessary to complete one. Physicians need to be informed to proactively, yet discreetly, initiate EoL discussions with their Chinese patients, considering the influence of physician paternalism valued in Chinese culture and that of patient autonomy so valued in Western culture. Physicians' initiation of EoL care communication should happen in the presence of family members who have an influence on the patient's EoL care decision making.

ACKNOWLEDGMENTS

The authors acknowledge funding support from the Silberman Faculty Grant Program of the New York Community Trust Fund.

REFERENCES

- Administration on Aging (2009). *Projected future growth of older adults by race and Hispanic origin*. Available from http://www.aoa.gov/AoARoot/Aging_Statistics/future_growth/future_growth.aspx
- Blackhall, L.J., Murphy, S.T., Frank, G., et al. (1995). Ethnicity and attitudes toward patient autonomy. *The Journal of the American Medical Association*, 274, 820–825.
- Bito, S., Matsumura, S., Singer, M.K., et al. (2007). Acculturation and end-of-life decision making: Comparisons of Japanese and Japanese-American focus groups. *Bioethics*, 21(5), 251–262.

- Blackhall, L.J., Frank, G., Murphy, S., et al. (2001). Bioethics in a different tongue: The case of truth-telling. *Journal of Urban Health*, 78, 59–71.
- Bowman, K.W. & Singer, P. A. (2001). Chinese seniors' perspectives on end-of-life decisions. *Social Science & Medicine*, 53, 455–464.
- Braun, K.L., Onaka, A.T. & Horiuchi, B.Y. (2001). Advance directive completion rates and end-of-life preferences in Hawaii. *Journal of the American Geriatrics Society*, 49(12), 1708–1713.
- Eleazer, G.P., Hornung, C.A., Egbert, C.B., et al. (1996). The relationship between ethnicity and advance directives in a frail older population. *Journal of the American Geriatrics Society*, 44, 938–943.
- Fagerlin, A., Ditto, P.H., Hawkins, N.A. et al. (2002). The use of advance directives in end-of-life decision making problems and possibilities. *American Behavioral Scientist*, 46(2), 268–283.
- Fang, M.L., Malcoe, L.H., Sixsmith, J., et al. (2014). Exploring traditional end-of-life beliefs, values, expectations, and practices among Chinese women living in England: Informing culturally safe care. *Palliative & Supportive Care*, 27, 1–14.
- Gallagher-Thompson, D., Gray, H.L., Tang, P.C.Y., et al. (2007). Impact of in-home behavioral management versus telephone support to reduce depressive symptoms and perceived stress in Chinese caregivers: Results of a pilot study. *The American Journal of Geriatric Psychiatry*, 15(5), 425–434.
- Gupta, R. & Yick, A.G. (2001). Preliminary validation of the acculturation scale on Chinese Americans. *Journal of Social Work Research and Evaluation*, 2(1), 43–56.
- Hall, E.T. (1976). How cultures collide. *Psychology Today*, 10, 66–75.
- Ho, Z.J.M., Radha Krishna, L.K. & Yee, C.P.A. (2010). Chinese familial tradition and Western influence: A case study in Singapore on decision making at the end of life. *Journal of Pain and Symptom Management*, 40(6), 932–937.
- Hornung, C.A., Eleazer, G.P., Stroghers, H.S., et al. (1998). Ethnicity and decision-makers in a group of frail older people. *Journal of the American Geriatrics Society*, 46, 280–286.
- Huang, W. (2003). *Chinese Americans acculturation scale*. Doctoral dissertation. Kent, Ohio: Kent State University.
- Hwang, W.C. & Ting, J.Y. (2008). Disaggregating the effects of acculturation and acculturative stress on the mental health of Asian Americans. *Cultural Diversity & Ethnic Minority Psychology*, 14(2), 147.
- Ko, E. & Lee, J. (2010). Completion of advance directives among Korean American and non-Hispanic white older adults. *Research on Aging*, 32(5), 618–644.
- Kwak, J. & Haley, W.E. (2005). Current research findings on end-of-life decision making among racially or ethnically diverse groups. *The Gerontologist*, 45(5), 634–641.
- Kwak, J. & Salmon, J.R. (2007). Attitudes and preferences of Korean-American older adults and caregivers on end-of-life care. *Journal of the American Geriatrics Society*, 55(11), 1867–1872.
- Kwak, J., Ko, E.J. & Kramer, B.J. (2014). Advance care planning practice with elders of diverse ethnic backgrounds and needs. *Health & Social Care in the Community*, 22, 169–177.
- Lugo, L., Cooperman, A., Funk, C., et al. (2012). *Asian Americans: A mosaic of faith*. A Pew Research Report.

- Available from the Pew Forum on Religion and Public Life: <http://www.pewforum.org>.
- Matsumura, S., Bito, S., Liu, H., et al. (2002). Acculturation of attitudes toward end-of-life care. *Journal of General Internal Medicine*, *17*(7), 531–539.
- Morrison, R.S. & Meier, D. (2004). High rates of advance care planning in New York City's elderly population. *Archives of Internal Medicine*, *164*, 2421–2426.
- Morrison, R.S., Zayas, L.H., Mulvihill, M., et al. (1998). Barriers to completion of health care proxies: An examination of ethnic differences. *Archives of Internal Medicine*, *158*(22), 2493–2497.
- Murphy, C.P., Sweeney, M.A. & Chiriboga, D. (2000). An educational intervention for advance directives. *Journal of Professional Nursing*, *16*(1), 21–30.
- Murphy, S.T., Palmer, J.M., Azen, S., et al. (1996). Ethnicity and advance care directives. *The Journal of Law, Medicine & Ethics*, *24*(2), 108–117.
- Phipps, E., True, G., Harris, D., et al. (2003). Approaching the end of life: Attitudes, preferences, and behaviors of African-American and white patients and their family caregivers. *Journal of Clinical Oncology*, *21*(3), 549–554.
- Vaughn, G., Kiyasu, E. & McCormick, W.C. (2000). Advance directive preferences among subpopulations of Asian nursing home residents in the Pacific Northwest. *Journal of the American Geriatrics Society*, *48*, 554–557.
- Wittenberg-Lyles, E., Villagran, M.M. & Hajek, C. (2008). The impact of communication, attitudes, and acculturation on advance directives decision making. *Journal of Ethnic and Cultural Diversity in Social Work*, *17*(4), 349–364.
- Xu., Y. (2007). Death and dying in the Chinese culture: Implications for health care practice. *Home Health Care Management & Practice*, *19*(5), 412–414.