


Knowledge About Alzheimer's Disease and Awareness of Alzheimer's Disease-Related Services in Older Korean Americans: The Role of Social Capital

Journal of Applied Gerontology
1–8
© The Author(s) 2020
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0733464820911533
journals.sagepub.com/home/jag


Nan Sook Park¹ , Yuri Jang², Min-Kyoung Rhee²,
Hyunwoo Yoon³ , and David A. Chiriboga¹

Abstract

The purpose of the study was to investigate factors associated with Alzheimer's Disease (AD)-related knowledge and service awareness in older Korean Americans. Considering the importance of social resources in the lives of older immigrants, the focus was on exploring the role of social capital-related factors (e.g., prior exposure to AD, social network, activity participation, and community social cohesion) on AD knowledge and service awareness. Data were drawn from the Study of Older Korean Americans (SOKA; $N = 2,150$; $M_{\text{age}} = 73.41$, $SD = 7.97$). Findings highlight the critical roles of prior exposure to AD and social network influencing both AD knowledge and service awareness, with activity participation also being associated with the latter. Results suggest that particular attention should be paid to individuals who are culturally and socially isolated when considering interventions.

Keywords

Alzheimer's disease knowledge, Alzheimer's disease-related services, older Korean Americans

With life expectancy increasing, the number of people in the United States living with Alzheimer's disease (AD) is projected to triple by 2050 (Alzheimer's Association, 2019). The disease exerts a devastating physical, psychological, and economic toll on both patients and their caregivers. Despite the increasing prevalence of AD, a majority of Americans do not have accurate knowledge about the disease and its implications (Cahill et al., 2015; Harris Interactive, 2011; Matthews et al., 2019; Milani et al., 2019). Although many studies report that education on AD and AD-related services reduces the disease burden for AD patients and their caregivers (Jang, Yoon, Park, Rhee, & Chiriboga, 2018), the benefit is not shared across the diverse populations.

Research suggests that knowledge and perception about mental illness and related health services are associated with actual use of services (Cardemil et al., 2015; Jimenez et al., 2012). Older immigrants represent one of the groups that are hardest to reach and most likely to reap benefits from AD-related interventions. Older immigrants are generally prone to cultural stigma and misconceptions about AD and related dementia (Casado et al., 2018; Herrmann et al., 2018). Often faced with limited English proficiency and unfamiliarity with the mainstream health care systems, older immigrants tend to be uninformed about AD and AD-related services (Mukadam et al., 2013). Such barriers are likely to deter early

diagnosis and treatments that can benefit those affected by the disease and provide guidance for caregivers (Alzheimer's Association, 2019; Cooper et al., 2010; Mukadam et al., 2013).

Another barrier is the disruption in their socioenvironmental context posed by the actual immigration experience. Social networks built in their native country are likely to be fragmented or lost, a process that has been referred to as the "broken convoy" effect (N. S. Park et al., 2015). Moreover, the social opportunities in the host country may differ substantially from those in their native country.

To better assess older immigrants in their new socioenvironment context, the current study was guided by social capital theory (Kawachi, 1999; Putnam, 1995). An understanding of social capital theory may be facilitated by distinguishing between its structural and cognitive features. Structural social

Manuscript received: May 15, 2019; **final revision received:** February 13, 2020; **accepted:** February 14, 2020.

¹University of South Florida, USA

²University of Southern California, CA, USA

³Portland State University, OR, USA

Corresponding Author:

Nan Sook Park, School of Social Work, University of South Florida,
13301 Bruce B. Downs Blvd., MHC 1400, Tampa, FL 33620, USA.
Email: nanopark@usf.edu

capital is concerned with individual assets accrued from social ties and social networks while cognitive social capital emphasizes collectively based resources such as the strength of social cohesion and trust in the community (Nygqvist et al., 2013; Putnam, 1995). Within the theory, individuals are connected through social networks and the interpersonal connections themselves can be used as personal assets and community resources. The social capital arising from both interpersonal and community connections is likely to be associated with individuals' physical health and psychological well-being (Kawachi & Berkman, 2000; Murayama et al., 2012). To older immigrants who now live in an environment substantially different from that of their country-of-origin, interpersonal networks and community resources play a critical role in determining whether they survive and thrive (Cheong et al., 2007; Kim et al., 2013; Mulvaney-Day et al., 2007).

Despite a growing need to address issues on AD in ethnic minority communities, there is relatively little information available concerning the level of knowledge of AD and AD-related services among older immigrants with linguistic barriers. Asian Americans, in particular, tend to be unaware of AD-related services and therefore underutilize them (Jang, Yoon, Park, Rhee, & Chiriboga, 2018; Sayegh & Knight, 2013; Sun et al., 2013). The present study focused on older Korean Americans who demonstrated high levels of concerns about their own development of AD as well as about the possibility of becoming a caregiver to persons with AD (Jang, Yoon, Park, Rhee, & Chiriboga, 2018). Despite their concerns, they generally had not developed concrete plans for the possibility of AD, and in this were comparable to other Asian subgroups. Similarly, older Korean Americans are likely to view AD as a stigma (S. E. Lee et al., 2010) and to underutilize AD-related services (Casado et al., 2018).

The present study builds upon the previous studies examining AD knowledge and help-seeking behavior among older Koreans. These studies have generally found that AD knowledge was correlated with higher levels of education and acculturation and greater personal experience with AD (Jang et al., 2010; S. E. Lee et al., 2010). In addition, the latter factors were associated with AD-related service use and help-seeking behaviors (Casado et al., 2018). Similar results were reported among the Chinese (Sun et al., 2014) and Vietnamese (S. E. Lee & Casado, 2019) older adults. However, these studies were limited in terms of using geographically restricted samples and not considering factors related to social capital. In responding to these gaps in the literature, the current study examined factors affecting AD-related knowledge and service awareness in older Korean Americans across geographic regions and from the social capital perspective.

Based on the literature and empirical evidence, we expected that perceived knowledge about AD and awareness of AD-related services would be associated with demographic variables, immigration-related variables, prior exposure to AD, and social and community resources. Drawing from social capital perspectives, we were especially interested in exploring the roles of social capital-related factors.

The factors included AD exposure (having a family member and/or friend with AD) and social/community resources (social network, activity participation, and community social cohesion). The inclusion of prior exposure to AD variable as a social capital factor was in line with the premise of structural social capital that interpersonal connections associated with AD occurrence in the personal network may become a personal asset and increase the likelihood of having knowledge of AD and AD-related services. Taken together, it was hypothesized that higher perceived knowledge about AD and awareness of AD-related services would be associated with greater levels of social capital factors (e.g., having a family member or friends with AD, larger social network, more activity participation and greater perceived community social cohesion).

Method

Participants

Data were drawn from the Study of Older Korean Americans (SOKA) including 2,150 Korean Americans aged 60 or above living in one of five states: California (Los Angeles), New York (New York City), Texas (Austin), Hawaii (Honolulu), and Florida (Tampa). The overall goal of the SOKA was to explore how social and environmental contexts play a role in health and health care among older Korean Americans with limited English proficiency. The five research sites varied in their concentration of Korean residents; California, New York, Texas, Hawaii, and Florida have been ranked as first, second, fourth, 10th, and 12th, respectively (U.S. Census Bureau, 2012). A team of investigators who were proficient with the language and culture of the target population recruited the community-based samples. At each site, an ethnic resource database listing Korean-oriented resources, services, and amenities was compiled with the assistance of local community advisors and members. The database not only facilitated the research team's efforts for community engagement but also guided the selection of recruitment areas within each site. Data collection took place at multiple locations and community events (e.g., churches, temples, grocery stores, small group meetings, and cultural events) from April 2017 to February 2018. The 12-page survey instrument consisted of standardized questionnaires in Korean, developed through a back-translation and reconciliation method. The survey was self-administered, but trained interviewers were available for anyone who needed assistance. On average, it took respondents about 40 min to complete the survey, and each was paid US\$20 for participation. The project was approved by a university Institutional Review Board. After excluding those who had more than 10% of data missing, the final sample consisted of 2,150 participants.

Measures

Dependent variables. Perceived knowledge about AD was assessed with a single question: How much do you know

about AD? The response was in the four-scale category: *nothing at all* (1), *not very much* (2), *somewhat* (3), and *very much* (4). To assess awareness of AD-related services, respondents were asked if they knew any local services or programs for those with AD and their family members; their response was either yes (1) or no (0).

Social capital–related factors. Variables considered were AD prior exposure, social network, activity participation, and community social cohesion. AD exposure was measured with a single question asking whether or not the respondent had family members or friends who had AD. The response was either yes (1) or no (0).

Social network was assessed by the parallel sets of three questions concerning family and friend networks (Lubben et al., 2006; Lubben & Girona, 2003). The questions consisted of the number of family or friends the respondent (a) saw or heard from at least once a month, (b) felt at ease to talk about private matters, and (c) felt close to. Each item had six response categories (0 = *none*; 5 = *nine or more*). The summative score for the combined inventories ranged from 0 to 30, with higher scores indicating a stronger tie with family or friends. The scale has been translated into Korean and validated for psychometric properties (Hong et al., 2011). In the present sample, Cronbach's alpha for the scale was .88.

Activity participation was measured with six items concerning how often the respondents participated in the following six activities: religious meetings/activities, senior center meetings/activities, informal social meetings/activities, sports (leisure) meetings/activities, volunteer meetings/activities, and educational meetings/activities. Each item had four categories of response: *not at all* (0), *sometimes* (1), *often* (2), and *every day* (3). The summative scores, ranging from 0 to 18, were used to index activity participation.

Community social cohesion was assessed with a series of five questions regarding the respondent's perception about whether the Korean community and/or people in the community were (a) a close-knit community, (b) willing to help each other, (c) sharing the same values, (d) getting along well with each other, and (e) trusted (Alegria et al., 2004; Cagney et al., 2009; Jang et al., 2015). Each question was answered in the five response categories (0 = *strongly disagree*, 4 = *strongly agree*). The summative scores ranged from 0 to 20 with a higher score indicating a higher level of perceived community social cohesion. Cronbach's alpha for the present sample was .92.

Covariates. Selection of covariates was guided by previous studies related to AD and older immigrants (Jang, Yoon, Park, Rhee, & Chiriboga, 2018; S. E. Lee et al., 2010; Sun et al., 2013). Background characteristics included age (in years), gender (0 = *male*, 1 = *female*), marital status (0 = *not married*, 1 = *married*), education (1 = *≤elementary school*, 2 = *middle school*, 3 = *high school*, 4 = *≥college*), and region (0 = *California*, 1 = *New York*, 2 = *Texas*, 3 = *Hawaii*, and 4 = *Florida*).

Immigration-related variables included the length of stay in the United States (in years) and acculturation. Acculturation was assessed with 12 items concerning: English proficiency, frequency of English use, consumption of audiovisual media in English, consumption of printed media in English, types of food consumed at home, types of food consumed outside the home, ethnicity of friends, social gathering, sense of belonging, getting along, familiarity to culture and custom, and celebration of holidays (Jang et al., 2007). Each question had four response categories, ranging from *not at all* (0) to *very much* (3), with the total scores ranging from 0 to 36. A higher score indicated a greater level of acculturation to mainstream American culture. Cronbach's alpha for the present sample was .91.

Statistical Analyses

As a preliminary step, descriptive statistics were used to examine the frequency and central tendency of the study variables, and bivariate correlations between all study variables were also examined. Then multiple linear regression models were performed on perceived knowledge about AD and logistic regression models on awareness of AD-related services. Both regression analyses included background variables (age, gender, marital status, education, and region), immigration-related variables (length of stay in the United States and acculturation), and social capital–related variables (prior exposure to AD, social network, activity participation, and community social cohesion). Statistical analyses were conducted using IBM SPSS Statistics 25 (IBM Corp., Armonk, NY).

Results

Descriptive Characteristics of the Sample

Table 1 describes the overall characteristics of the sample and study variables. The average age of the sample was about 73 years. Approximately 67% were female and 61% married. About three quarters of the sample had an education higher than high school. The highest proportion of the sample was from California, followed by New York, Texas, Hawaii, and Florida. On average, participants had lived in the United States for about 32 years and their average acculturation score indicated a relatively low level of acculturation. Indeed, two thirds of the sample indicated that they did not speak English at all or spoke little (not shown in the table). About 19% of the sample had family members or friends with AD. The means of social network, activity participation, and community social cohesion suggested that participants had the medium levels of social network and community social cohesion and lower level of activity participation. With respect to dependent variables, the majority of the participants felt they had not much to some knowledge of AD, and more than 86% were not aware of any local services or programs for those with AD and their family members.

Table 1. Descriptive Characteristics of the Sample ($N = 2,150$).

Variable	%	$M \pm SD$ (range)
Demographic variable		
Age (in years)		73.41 \pm 7.97 (60–100)
Gender		
Male	33.2	
Female	66.8	
Marital status		
Not married	39.4	
Married	60.6	
Education		3.04 \pm 1.0 (1–4)
≤Elementary school	11.8	
Middle school	13.0	
High school	35.3	
≥College	39.7	
Region		
California	30.2	
New York	25.5	
Texas	15.0	
Hawaii	15.0	
Florida	14.3	
Immigration-related variable		
Length of stay in the United States (in years)		31.51 \pm 12.09 (0.17–80)
Acculturation		12.23 \pm 7.07 (0–35)
Social capital–related variable		
Prior AD exposure	18.9	
Social network		15.47 \pm 6.05 (0–30)
Activity participation		4.57 \pm 2.92 (0–18)
Community social cohesion		11.40 \pm 4.10 (0–20)
Outcome variable		
Perceived knowledge about AD		2.82 \pm 0.99 (1–4)
Not at all	15.4	
Not very much	13.3	
Somewhat	45.1	
Very much	26.3	
Awareness of AD-related services		
No	86.3	
Yes	13.7	

Note. AD = Alzheimer's disease.

Bivariate correlations among study variables. Table 2 illustrates the bivariate correlations among study variables. Older participants were significantly less likely to report AD knowledge ($r = -.22, p < .001$), but they reported a greater awareness of AD-related services ($r = .05, p < .05$). Both AD knowledge and awareness of AD-related services were positively correlated with educational attainment, acculturation, exposure to AD, social network, and activity participation. In addition, AD knowledge was positively correlated with being married ($r = .16, p < .001$), being a Florida resident ($r = .12, p < .001$), and length of stay in the United States ($r = .10, p < .001$); it was negatively correlated with being a resident

in New York ($r = -.05, p < .05$) or Hawaii ($r = -.08, p < .001$). With correlation coefficients being lower than .39, issues related to multicollinearity were evaluated to be minimal. However, prior to running multiple regression analyses of AD knowledge, collinearity diagnostics were examined using the variance inflation factor (VIF). The VIF values ranged from 1.02 to 1.84, which are far less than 10, the suggested indication of multicollinearity (Belsley et al., 1980).

Regression Models of Knowledge About AD and Awareness of AD-Related Services

Table 3 presents the results of the regression models of perceived knowledge about AD and awareness of AD-related services. In the first model, higher levels of perceived knowledge about AD were associated with younger age, female gender, being married, higher education, greater acculturation, having family members or friends with AD, and having more extensive social networks. Residents from New York and Hawaii had lower perceived knowledge about AD compared with those in California. In the second model, greater awareness of AD-related services was associated with older age, greater acculturation, having family members or friends with AD, larger social networks, and higher levels of activity participation.

Discussion

Using a sample of older Korean Americans in five states, the study investigated factors associated with the AD-related knowledge and service awareness. The results showed that one third of the sample did not know about AD at all or very much. Also concerning was that the majority (86%) were not aware of AD-related services. Overall findings were in line with the hypothesis that social capital factors would be associated with AD knowledge and service awareness; having a family member or friends with AD and having a large social network were related with both dependent variables. It is noteworthy that activity participation was associated only with AD service awareness and that perceived community social cohesion was not related to either knowledge or service awareness.

The results obtained for the association of perceived knowledge were generally consistent with findings reported in the literature. That is, the younger, married, and more educated participants, and those who were more acculturated and had a family member or friend with AD were more knowledgeable about it (Jang et al., 2010). Fitting in with social capital theory, participants with greater social resources were more knowledgeable. The variables associated with a greater awareness of AD services were also generally in accordance with past research and with social capital theory; a greater service awareness was more likely among the more acculturated, those with a family member or

Table 2. Correlations Among Study Variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	—															
2. Female	-.11***	—														
3. Married	-.24***	-.26***	—													
4. Education	-.21***	-.30***	.25***	—												
5. California	.12***	.04*	-.17***	.05*	—											
6. New York	.03	-.12***	.06**	.05*	-.39***	—										
7. Texas	-.18***	-.02	.10***	.02	-.28***	-.25***	—									
8. Hawaii	.08***	.13***	-.10***	-.14***	-.28***	-.25***	-.18***	—								
9. Florida	-.09***	-.02	.15***	.00	-.27***	-.24***	-.17***	-.17***	—							
10. Length of stay in the United States	.17***	-.01	-.02	.08***	-.10***	-.02	-.04	.07**	.13***	—						
11. Acculturation	-.21***	-.11***	.21***	.39***	-.19***	-.12***	.18***	-.02	.24***	.43***	—					
12. AD exposure	.01	.07**	.01	.05*	-.03	-.02	-.00	.03	.04	.07**	.07**	—				
13. Social network	-.10***	.03	.20**	.21***	-.05*	-.01	.04*	-.03	.05*	.05*	.26***	.06*	—			
14. Activity participation	.08***	-.06**	.05*	.20***	-.02	.17***	-.06**	-.02	-.11***	.08**	.19***	.05*	.25***	—		
15. Social cohesion	.14***	.04*	-.02	-.08***	.01	.05*	-.02	-.03	-.03	.04*	-.01	-.01	.13***	.15***	—	
16. AD knowledge	-.22***	-.01	.16***	.35***	-.01	-.05*	.04	-.08***	.12***	.10***	.33***	.10***	.21***	.12***	-.03	—
17. Awareness of AD services	.05*	.02	-.02	.07**	-.01	.02	.01	.01	-.04	.04	.09***	.09***	.09***	.14***	.04	.18***

Note. AD = Alzheimer’s disease.
p* < .05. *p* < .01. ****p* < .001.

Table 3. Regression Models of Perceived Knowledge About AD and Awareness of AD-Related Services.

Variable	Perceived knowledge about AD	Awareness of AD-related services
	β	Odds ratio [95% confidence interval]
Demographic variable		
Age	-.11***	1.02* [1.01, 1.05]
Female	.07**	1.34 [0.97, 1.86]
Married	.05*	0.86 [0.63, 1.17]
Education	.25***	1.14 [0.97, 1.35]
Region (ref = California)		
New York	-.06*	1.05 [0.73, 1.51]
Texas	-.04	1.03 [0.66, 1.62]
Hawaii	-.07**	1.09 [0.71, 1.67]
Florida	.02	0.44 [0.48, 1.16]
Immigration-related variable		
Length of stay in the United States	.02	0.99 [0.98, 1.01]
Acculturation	.17***	1.03* [1.01, 1.06]
Social capital-related variable		
Prior AD exposure	.06**	1.72** [1.26, 2.34]
Social network	.07**	1.03* [1.01, 1.06]
Activity participation	.03	1.09** [1.04, 1.14]
Community social cohesion	-.01	1.02 [0.98, 1.06]
Summary statistics	$R^2 = .20***$	-2 Log likelihood = 1,446.5 $\chi^2/df = 73.0***/14$

Note. AD = Alzheimer’s disease.
p* < .05. *p* < .01. ****p* < .001.

friend with AD, those belonging to larger social networks, and those who were more engaged with a variety of social activities (Carpenter et al., 2011; Jones et al., 2006; S. E. Lee & Casado, 2019).

It is interesting to note that educational attainment and activity participation were positively associated with both AD knowledge and AD service awareness in bivariate correlations, yet in regression models, education was associated with knowledge while activity participation was related with service awareness. These results suggest that perceived knowledge about AD is more related with AD literacy (a proxy of education) while awareness about AD-related services concerns with social opportunities to learn the services available in the community (Connell et al., 2007). Interestingly, there were geographic variations regarding AD knowledge, but they were not observed for service awareness in both bivariate and multivariate analyses. Participants from New York and Hawaii had lower perceived knowledge about AD compared with those in California; participants from Florida, where the proportion of Korean Americans in the community was lowest, had greater AD knowledge in bivariate correlations, but they were not significantly different from those in the area with the highest proportion. As selection of the sample was not based on a probability sampling method, comparisons of different sites should be made with caution. However, individuals in low Korean density areas like Florida may experience AD differently in that AD experience is more intensified in more close-knit communities and individuals quickly learn about the disease.

As hypothesized, the social capital-related factors including having a family member/friends with AD and having a large social network were associated with both perceived knowledge about AD and awareness of AD-related services.

Such findings confirm that knowledge transmits through social connections and those who have firsthand knowledge or who have more extensive networks have the advantage of acquiring better knowledge of the disease and available local services (S.-Y. D. Lee et al., 2004; Umberson et al., 2010). Interestingly, activity participation was associated with awareness of AD-related services, yet it was not related with perceived knowledge about AD. Given that our measure of activity included participation in religious activities and senior centers, the finding suggests that the latter types of participation could provide a channel or source of information for participants to learn available AD services in communities (M. J. Park et al., 2018; Massey & Higgins, 2011).

Surprisingly, however, perceived community social cohesion was a nonfactor in both perceived knowledge about AD and awareness of AD-related services in both bivariate and multivariate analyses. Although perceived community social cohesion was highly correlated with social network and activity participation, the former may touch a different aspect of social capital from the latter. This lack of association of perceived community social cohesion with AD-related knowledge and awareness suggests that older immigrants may obtain AD-related knowledge and service awareness primarily through their networks and engagement with the networks; perceived community cohesion may not directly affect the acquisition of knowledge about the disease and available resources (Jang, Yoon, & Park, 2018).

The finding that those who maintained broad networks and engaged in activities were better positioned to acquire knowledge of AD or available AD services raises concerns about the vulnerability of individuals who lack social resources. Evidence suggests that individuals who are deficient in social resources have overall disadvantages (Antonucci et al., 2014; Harasemiw et al., 2018; Litwin & Shiovitz-Ezra, 2011). This may in turn result in delaying early diagnosis and timely treatment. In addition to the social capital advantages, the positive association of acculturation with both dependent variables reflects the influential role acculturation plays (Ayalon & Areán, 2004; S. E. Lee et al., 2010). Taken together, special attention should be paid to socially and culturally isolated individuals and target them for AD education and services.

In developing intervention programs for AD and related dementia among older immigrants, the focus should be placed on the role of social capital-related factors (e.g., social network, activity participation) to enhance the AD knowledge and awareness of AD-related services in community. For example, information sharing and implementing education programs may take place through venues where older immigrants participate and interact with others such as senior centers or religious congregations. Given that acculturation plays a significant role in AD knowledge and service awareness, intervention programs need to be culturally sensitive and target especially those with limited English proficiency and those with few social resources.

The study has some limitations. First, although the current study is based on one of the largest data targeting older Korean Americans in diverse locations, the nonprobability sampling method may limit the generalizability of findings. However, it is important to note that the data collection was based on culturally sensitive methods of developing databases of ethnic resources and engaging with the community to develop community-based samples. These methods become necessary when the population being studied may not be readily identifiable with standard epidemiologic strategies. Second, due to the cross-sectional research design, the findings of the studies represent only associations of variables. For this reason, the level of analysis was descriptive rather than predictive. In future research, longitudinal investigations may be sought; for example, how does AD education programs increase AD knowledge and awareness of services available in the community? Third, major outcome variables—AD knowledge and awareness of AD-related services—each included a single item. Although such single items are useful when collecting data from relatively uneducated individuals, responses lack the depth and breadth of AD-related knowledge and experiences that could accrue from the use of inventories. Future studies should consider including multiple questions addressing in-depth knowledge of AD (e.g., specific AD-related information, experience with AD, and preparedness for AD) and awareness of available resources in ethnic as well as general communities. Furthermore, regional differences could be explored with respect to providing AD-related resources and services and how these differences could shape the awareness and preparedness for AD in ethnic communities.

Despite the limitations, the current study provides unique perspectives on perceived knowledge about AD and awareness of AD-related services drawing on a social capital perspective. Transmission of knowledge about AD and related services may take more importance among older immigrants who lack social resources because they are isolated in terms of network or from the mainstream culture due to limited proficiency in the language of the host culture. Education on AD and intervention efforts should be targeted using older immigrants' social network and activity participation.

Acknowledgments

The authors thank Drs. Kunsook Bernstein, Soonhee Roh, Soyeon Cho, Sanggon Nam, and Seunghye Hong, and community advisors for help with data collection.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Data

collection was supported by a grant from the National Institute on Aging (R01AG047106, PI: Yuri Jang, PhD). This work was supported in part by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2016-S1A3A2924582, PI: Soondool Chung, PhD).

IRB Protocol/Human Subject Approval Number

The University of Texas at Austin: FWA#00002030.

ORCID iDs

Nan Sook Park  <https://orcid.org/0000-0003-1751-182X>

Hyunwoo Yoon  <https://orcid.org/0000-0001-7714-4465>

References

- Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X.-L., & Gong, F. (2004). Considering context, place and culture: The National Latino and Asian American Study. *International Journal of Methods in Psychiatric Research*, 13(4), 208–220. <https://doi.org/10.1002/mpr.178>
- Alzheimer's Association. (2019). *2019 Alzheimer's disease facts and figures*. <https://www.alz.org/media/Documents/alzheimers-facts-and-figures-2019-r.pdf>
- Antonucci, T. C., Ajrouch, K. J., & Birditt, K. S. (2014). The convoy model: Explaining social relations from a multidisciplinary perspective. *The Gerontologist*, 54(1), 82–92. <https://doi.org/10.1093/geront/gnt118>
- Ayalon, L., & Areán, P. A. (2004). Knowledge of Alzheimer's disease in four ethnic groups of older adults. *International Journal of Geriatric Psychiatry*, 19(1), 51–57. <https://doi.org/10.1002/gps.1037>
- Belsley, D. A., Kuh, E., & Welsch, R. E. (1980). *Regression diagnostics: Identifying influential data and sources of collinearity*. New York: John Wiley and Sons, Inc.
- Cagney, K. A., Glass, T. A., Skarupski, K. A., Barnes, L. L., Schwartz, B. S., Mendes de Leon, C. F. (2009). Neighborhood-level cohesion and disorder: Measurement and validation in two older adult urban populations. *The Journals of Gerontology, Series B: Psychological Sciences & Social Sciences*, 64(3), 415–424. <https://doi.org/10.1093/geronb/gbn041>
- Cahill, S., Pierce, M., Werner, P., Darley, A., & Bobersky, A. (2015). A systematic review of the public's knowledge and understanding of Alzheimer's disease and dementia. *Alzheimer Disease & Associated Disorders*, 29(3), 255–275. <https://doi.org/10.1097/wad.000000000000102>
- Cardemil, E. V., Nelson, T., & Keefe, K. (2015). Racial and ethnic disparities in depression treatment. *Current Opinion in Psychology*, 4, 37–42. <https://doi.org/10.1016/j.copsyc.2015.01.021>
- Carpenter, B. D., Zoller, S. M., Balsis, S., Otilingam, P. G., & Gatz, M. (2011). Demographic and contextual factors related to knowledge about Alzheimer's disease. *American Journal of Alzheimer's Disease & Other Dementias*, 26(2), 121–126. <https://doi.org/10.1177/1533317510394157>
- Casado, B. L., Hong, M., & Lee, S. E. (2018). Attitudes toward Alzheimer's care-seeking among Korean Americans: Effects of knowledge, stigma, and subjective norm. *The Gerontologist*, 58(2), e25–e34. <https://doi.org/10.1093/geront/gnw253>
- Cheong, P. H., Edwards, R., Goulbourne, H., & Solomos, J. (2007). Immigration, social cohesion and social capital: A critical review. *Critical Social Policy*, 27(1), 24–49. <https://doi.org/10.1177/0261018307072206>
- Connell, C. M., Scott Roberts, J., & McLaughlin, S. J. (2007). Public opinion about Alzheimer disease among Blacks, Hispanics, and Whites: Results from a national survey. *Alzheimer Disease & Associated Disorders*, 21(3), 232–240.
- Cooper, C., Tandy, A. R., Balamurali, T. B., & Livingston, G. (2010). A systematic review and meta-analysis of ethnic differences in use of dementia treatment, care, and research. *The American Journal of Geriatric Psychiatry*, 18(3), 193–203. <https://doi.org/10.1097/JGP.0b013e3181bf9caf>
- Harasemiw, O., Newall, N., Shooshtari, S., Mackenzie, C., & Menec, V. (2018). From social integration to social isolation: The relationship between social network types and perceived availability of social support in a national sample of older Canadians. *Research on Aging*, 40, 715–739. <https://doi.org/10.1177/0164027517734587>
- Harris Interactive. (2011). *What America thinks: MetLife foundation Alzheimer's survey*. <https://www.metlife.com/content/dam/microsites/about/corporate-profile/alzheimers-2011.pdf>
- Herrmann, L. K., Welter, E., Leverenz, J., Lerner, A. J., Udelson, N., Kanetsky, C., & Sajatovic, M. (2018). A systematic review of dementia-related stigma research: Can we move the stigma dial? *The American Journal of Geriatric Psychiatry*, 26(3), 316–331. <https://doi.org/10.1016/j.jagp.2017.09.006>
- Hong, M., Casado, B. L., & Harrington, D. (2011). Validation of Korean versions of the Lubben Social Network Scales in Korean Americans. *Clinical Gerontologist*, 34(4), 319–334. <https://doi.org/10.1080/07317115.2011.572534>
- Jang, Y., Kim, G., & Chiriboga, D. (2010). Knowledge of Alzheimer's disease, feelings of shame, and awareness of services among Korean American elders. *Journal of Aging and Health*, 22(4), 419–433. <https://doi.org/10.1177/0898264309360672>
- Jang, Y., Kim, G., Chiriboga, D., & Kallimanis, B. (2007). A bidimensional model of acculturation for Korean American older adults. *Journal of Aging Studies*, 21(3), 267–275. <https://doi.org/10.1016/j.jaging.2006.10.004>
- Jang, Y., Park, N. S., Chiriboga, D. A., Yoon, H., An, S., & Kim, M. T. (2015). Social capital in ethnic communities and mental health: A study of older Korean immigrants. *Journal of Cross-cultural Gerontology*, 30(2), 131–141. <https://doi.org/10.1007/s10823-015-9258-9>
- Jang, Y., Yoon, H., Park, N. S., Rhee, M.-K., & Chiriboga, D. A. (2018). Asian Americans' concerns and plans about Alzheimer's disease: The role of exposure, literacy and cultural beliefs. *Health & Social Care in the Community*, 26(2), 199–206. <https://doi.org/https://doi.org/10.1111/hsc.12509>
- Jang, Y., Yoon, J., & Park, N. S. (2018). Source of health information and unmet healthcare needs in Asian Americans. *Journal of Health Communication*, 23(7), 652–660. <https://doi.org/10.1080/10810730.2018.1500660>
- Jimenez, D. E., Bartels, S. J., Cardenas, V., Daliwal, S. S., & Alegria, M. (2012). Cultural beliefs and mental health treatment preferences of ethnically diverse older adult consumers in primary care. *The American Journal of Geriatric Psychiatry*, 20(6), 533–542. <https://doi.org/10.1097/JGP.0b013e318227f876>

- Jones, R. S., Chow, T. W., & Gatz, M. (2006). Asian Americans and Alzheimer's disease: Assimilation, culture, and beliefs. *Journal of Aging Studies, 20*(1), 11–25. <https://doi.org/10.1016/j.jaging.2005.01.001>
- Kawachi, I. (1999). Social capital and community effects on population and individual health. *Annals of the New York Academy of Sciences, 896*(1), 120–130. <https://doi.org/10.1111/j.1749-6632.1999.tb08110.x>
- Kawachi, I., & Berkman, L. F. (2000). Social cohesion, social capital, and health. In L. F. Berkman & I. Kawachi (Eds.), *Social epidemiology* (pp. 174–190). Oxford University Press.
- Kim, B. J., Auh, E., Lee, Y. J., & Ahn, J. (2013). The impact of social capital on depression among older Chinese and Korean immigrants: Similarities and differences. *Aging & Mental Health, 17*(7), 844–852. <https://doi.org/10.1080/13607863.2013.805399>
- Lee, S. E., & Casado, B. L. (2019). Knowledge of Alzheimer's disease among Vietnamese Americans and correlates of their knowledge about Alzheimer's disease. *Dementia, 18*(2), 713–724. <https://doi.org/10.1177/1471301217691616>
- Lee, S. E., Lee, H. Y., & Diwan, S. (2010). What do Korean American immigrants know about Alzheimer's disease (AD)? The impact of acculturation and exposure to the disease on AD knowledge. *International Journal of Geriatric Psychiatry, 25*(1), 66–73. <https://doi.org/10.1002/gps.2299>
- Lee, S.-Y. D., Arozullah, A. M., & Cho, Y. I. (2004). Health literacy, social support, and health: A research agenda. *Social Science & Medicine, 58*(7), 1309–1321. [https://doi.org/10.1016/S0277-9536\(03\)00329-0](https://doi.org/10.1016/S0277-9536(03)00329-0)
- Litwin, H., & Shiovitz-Ezra, S. (2011). Social network type and subjective well-being in a national sample of older Americans. *The Gerontologist, 51*(3), 379–388. <https://doi.org/10.1093/geront/gnq094>
- Lubben, J. E., Blozik, E., Gillmann, G., Iliffe, S., von Renteln Kruse, W., Beck, J. C., & Stuck, A. E. (2006). Performance of an abbreviated version of the Lubben Social Network Scale among three European community-dwelling older adult populations. *The Gerontologist, 46*(4), 503–513. <https://doi.org/10.1093/geront/46.4.503>
- Lubben, J. E., & Gironde, M. W. (2003). Centrality of social ties to the health and wellbeing of older adults. In B. Berkman & L. Harootyan (Eds.), *Social work and health care in an aging society: Education, policy, practices, and research* (pp. 319–350). Springer.
- Massey, D. S., & Higgins, M. E. (2011). The effect of immigration on religious belief and practice: A theologizing or alienating experience? *Social Science Research, 40*(5), 1371–1389.
- Matthews, K. A., Xu, W., Gaglioti, A. H., Holt, J. B., Croft, J. B., Mack, D., & McGuire, L. C. (2019). Racial and ethnic estimates of Alzheimer's disease and related dementias in the United States (2015–2060) in adults aged ≥ 65 years. *Alzheimer's & Dementia, 15*(1), 17–24. <https://doi.org/10.1016/j.jalz.2018.06.3063>
- Milani, S. A., Lloyd, S., Cottler, L. B., & Striley, C. W. (2019). Racial and ethnic differences in Alzheimer's disease knowledge among community-dwelling middle-aged and older adults in Florida. *Journal of Aging and Health, 31*(10), 1777–1791. <https://doi.org/10.1177/0898264319838366>
- Mukadam, N., Cooper, C., & Livingston, G. (2013). Improving access to dementia services for people from minority ethnic groups. *Current Opinion in Psychiatry, 26*(4), 409–414. <https://doi.org/10.1097/YCO.0b013e32835ee668>
- Mulvaney-Day, N. E., Alegría, M., & Sribney, W. (2007). Social cohesion, social support, and health among Latinos in the United States. *Social Science & Medicine, 64*(2), 477–495. <https://doi.org/10.1016/j.socscimed.2006.08.030>
- Murayama, H., Fujiwara, Y., & Kawachi, I. (2012). Social capital and health: A review of prospective multilevel studies. *Journal of Epidemiology, 22*(3), 179–187.
- Nyqvist, F., Forsman, A. K., Giuntoli, G., & Cattan, M. (2013). Social capital as a resource for mental well-being in older people: A systematic review. *Aging & Mental Health, 17*(4), 394–410. <https://doi.org/10.1080/13607863.2012.742490>
- Park, M. J., Park, N. S., & Chiriboga, D. A. (2018). A latent class analysis of social activities and health among community-dwelling older adults in Korea. *Aging & Mental Health, 22*(5), 625–630.
- Park, N. S., Jang, Y., Lee, B. S., Ko, J. E., Haley, W. E., & Chiriboga, D. A. (2015). An empirical typology of social networks and its association with physical and mental health: A study with older Korean immigrants. *The Journals of Gerontology, Series B: Psychological Sciences & Social Sciences, 70*(1), 67–76. <https://doi.org/10.1093/geronb/gbt065>
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy, 6*(1), 65–78. <https://doi.org/10.1353/jod.1995.0002>
- Sayegh, P., & Knight, B. G. (2013). Cross-cultural differences in dementia: The Sociocultural Health Belief Model. *International Psychogeriatrics, 25*(4), 517–530. <https://doi.org/10.1017/S104161021200213X>
- Sun, F., Gao, X., & Coon, D. W. (2013). Perceived threat of Alzheimer's disease among Chinese American older adults: The role of Alzheimer's disease literacy. *The Journals of Gerontology, Series B: Psychological Sciences & Social Sciences, 70*(2), 245–255. <https://doi.org/10.1093/geronb/gbt095>
- Sun, F., Gao, X., Shen, H., & Burnette, D. (2014). Levels and correlates of knowledge about Alzheimer's disease among older Chinese Americans. *Journal of Cross-Cultural Gerontology, 29*(2), 173–183.
- Umberson, D., Crosnoe, R., & Reczek, C. (2010). Social relationships and health behavior across the life course. *Annual Review of Sociology, 36*(1), 139–157. <https://doi.org/10.1146/annurev-soc-070308-120011>
- U.S. Census Bureau. (2012). *The Asian population: 2010*. <https://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>