

COMMENTARY

Put more attention to dementia knowledge changes among minority

Sun and colleagues firstly compared dementia knowledge, dementia belief, and dementia worry's changes between 2013 and 2017 among the Chinese American population (Sun *et al.*, 2021). They reported that older Chinese Americans' dementia knowledge decreased, while dementia beliefs and dementia remained unchanged from 2013 to 2017. However, their findings seem to be contradicted a general understanding that with more public education about dementia, public awareness of dementia should be increased, biased or stigmatized beliefs of dementia should be decreased, and worries about getting dementia might be declined, too.

In previous studies on dementia knowledge in the Chinese population worldwide, their dementia knowledge appears to be on an uptrend chronologically. Two studies separately used the same tool to access Chinese Americans living in Los Angeles in 2014 and 2016 (Diamond and Woo, 2014; Zheng *et al.*, 2016). Their results showed an uptrend in dementia knowledge from 2014 to 2016, with the correct rate changing from 56.6% to 57.9%. On the other hand, in mainland China, much more studies focused on dementia knowledge among older Chinese. Although their results fluctuated from 2005 to 2021, there is a rising trend in general (Yang *et al.*, 2022; Gao *et al.*, 2020; Huang *et al.*, 2014; Zhang *et al.*, 2017).

However, to understand Sun *et al.*'s results, one possible reason for this inconsistency might be that Sun and colleagues focus on a minority group of only about 10% natively speaking English. And the language might be a barrier to access to public service, as the author mentioned that public education may have failed to reach out to older Chinese Americans, although the author did not find that language speaking correlates with the level of dementia knowledge. Another reason might be that the resources for dementia education for the elder might decrease as research and public focus shift to the prodromal stage of dementia (Livingston *et al.*, 2020). The Chinese American may have knowledge improvement in dementia prevention and related knowledge. And the research found that non-professional groups used fewer resources, often popular media (e.g. newspapers, television, and the Internet) or personal contacts, which may not be accurate

(Carpenter *et al.*, 2011). The ceiling effect might be another reason, as the room for improvement of dementia knowledge among older Chinese Americans is small, reaching over 70% in two surveys and especially when nearly 35% of participants have a college degree or above education.

Several limitations could be found in Sun and colleagues' study, which might be barriers to its interpretation. Firstly, the purposive sampling technique was used, which has selected bias due to the underrepresentation of subgroups in the sample. Secondly, it is worth further exploring if the result is clinically significant and not only statistically significant, as the dementia knowledge is very close in the two surveys, with 11.82 (2.24) vs. 11.26 (1.94), respectively. Howard and colleagues highlight the meaning of clinical importance, with the minimal clinical importance of the Mini-Mental State Examination (MMSE) is at least 1.4 points (Howard *et al.*, 2011; Liu *et al.*, 2021b).

Future studies should consider the influence of COVID-19, which has disproportionately negatively impacted people affected by dementia, dementia services, and research (Liu *et al.*, 2021a). As Wang *et al.* reported, the way older people get information changed dramatically after the pandemic (Wang *et al.*, 2020). Before the pandemic, the elderly could obtain health education information from community activity centers or primary care centers. Currently, older people tend to minimize daily contact with the outside world as much as possible; therefore, they have to find new ways to approach such information. However, the popular information resources, such as the Internet, mobile phone, or iPad, seem to be not user-friendly to older people. In the year of 2016, the prevalence rate of health anxiety was 9.53% among the elders in China (Yang *et al.*, 2022). The lack of reasonable ways to get information may make the health anxiety worse than in 2016.

The National Plan to Address Alzheimer's Disease: 2021 Update highlights the need to put more efforts into the minority group: monitor and identify strategies to increase enrollment of racial and ethnic minorities in Alzheimer's disease and related dementias studies (Department of Health and Human Services, 2021). The unexpected findings in Sun's study prompt us to conduct more rigorously designed

studies to overcome this limitation. Firstly, more longitudinal studies are needed in the future. Secondly, most studies in dementia knowledge employed a qualitative approach and used the Dementia Knowledge Assessment Scale (DKAS) as the assessment tool. However, as we mentioned above, the public education has shift to dementia prevention and early detection, newly identified risk factors should be taken into consideration. For example, *Zhang et al found that excessive sleep (≥ 10 hours/day) may increase the risk of cognitive impairment in older individuals (OR = 1.309, 95% CI: 1.019–1.683) (Zhang et al., 2022).* To overcome the shortcoming of the structure questionnaire, the qualitative design might be considered in future studies, which could provide a more detailed description of participants' perceptions, thoughts, and understandings of dementia.

In conclusion, Sun's study provides a new perspective on understanding dementia knowledge, dementia belief, and dementia worry among Chinese Americans. With the greatly changed delivery methods of public health education during the COVID-19 epidemic, future health education programs for older Chinese Americans could be designed as more targeted and accessible.

Conflict of interest

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