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A Cross-Cultural Comparison of Attitudes Toward People With Dementia in Communication Science and Disorders Majors

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Purpose : This study was designed to 1) explore students' attitudes toward people with dementia among Communication Science and Disorders (CSD) majors studying in the United States (U.S.) and South Korea and 2) investigate factors shaping each group's attitudes.
Methods : 247 U.S. and 152 Korean students completed an online anonymous survey. The survey consisted of 1) background information including demographic, academic, experience, and aspiration items 2) a quiz on aging and dementia 3) the revised Scale of Attitudes toward People with Dementia (rSAPwD). The two groups' attitudes toward people with dementia was compared using an independent samples *t*-test. To understand factors affecting each group's attitudes, stepwise regression analyses were conducted. For the stepwise analyses, the background information and quiz scores were used as predictors of participants' rSAPwD scores.
Results : Both groups showed neutral attitudes toward people with dementia. However, the U.S. group scored significantly higher on the rSAPwD compared to the Korean group. Factors important for attitudes of both groups were interest in the aging population, the number of gerontology courses taken, and work experience with older adults. However, some additional factors shaping the two groups' attitudes differently were also identified.
Conclusions : Preparing CSD students as advocates for people with dementia is crucial to understand and meet the needs of those they will work with in the future. In addition, there are cultural considerations that shape the development of this advocacy. Thus, insight can aid in the refinement of CSD curriculum to better prepare future clinicians. Future investigations of CSD students and clinicians in practice through a cultural lens is necessary to better understand the mechanisms that influence and foster the shaping of dementia-friendly attitudes.

Keywords : Dementia, attitudes, dementia-friendly, cross-cultural, CSD education

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Ⅰ. Introduction

Across the world, approximately 730 million people were older adults in 2019, defined as those aged 65 and older. This number is expected to double to 1.5 billion by 2050. This equates to 1 in 11 people in 2019 and 1 in every 6 people in 2050 (United Nations, 2019). Eastern and South-Eastern Asia had the largest older population in the world in 2019 (260 million) and the projected increase is also the largest in these regions. Although a relatively slower aging pace was anticipated in Europe and Northern America, the two regions were later identified in 2019 as having the second largest older population (over 200 million) in the world (United Nations, 2019).

South Korea, an Eastern Asian country, recorded the largest percentage point increase of an older population (23.0%) in 2019 (United Nations, 2019). South Korea became a member of what is known as an aging society in 2000, which is identified when the proportion of those 65 or older in a country consists of 7% of the population. Only 17 years later, the country became recognized as an aged society, when the older adult proportion increases to over 14% (Kim & Kim, 2020). In comparison, it took Japan 24 years to transition to a member of the aged society from one of the aging societies, France 115 years, and the United States (U.S.) 73 years (Statistics Korea, 2017). When comparing the

rapid growth of South Korea's older adult population, societal implications must be considered.

The U.S. an aging society in Northern America, has been facing a similar issue with respect to the rapid growth of persons aging into older adulthood. The baby-boomers, one of the largest U.S. age cohorts who were born between 1946 and 1962, have already begun to enter older adulthood (Alzheimer's Association, 2021). As this trend continues, U.S. citizens aged 65 and over are expected to outnumber children under the age of 18 by 2035, according to the United States Census Bureau (2017).

With the increasing volume of the aging population, the number of people diagnosed with dementia is also growing. Across the world, over 55 million people are currently identified as having dementia, and approximately 10 million additional people are diagnosed with dementia every year (World Health Organization: WHO, 2021). In 2019, South Korea had an estimated 860,000 older adults diagnosed with dementia, which is 11.2% of the total older population (National Institute of Dementiaa: NID, 2021). The number is expected to double every 17 years, yielding over 3 million people with dementia ages 65 and over by 2050 (NID, 2021). In the U.S., on the other hand, approximately 6.2 million older Americans are living with dementia of the Alzheimer's type, which is more than 1 in 9 older adults (Rajan et al., 2021). Although the nationwide prevalence of all dementias in the U.S. is unavailable, based on the estimates from the Aging, Demographics, and Memory Study in 2012, roughly 11% of the U.S. older population live with dementia (Hudomiet et al., 2018).

A considerable number of people with dementia experience speech, language, hearing, and/or swallowing problems. To meet these needs, the American Speech-Language & Hearing Association (ASHA) has expanded the scope of practice of speech-language pathologists (SLPs) and audiologists (AUDs) to better describe the roles of SLPs and AUDs in providing clinical and educational services for people with dementia and caregivers (ASHA, 2016; ASHA, 2018). According to the 2019 SLP healthcare survey conducted by ASHA, SLPs spent 60% of their time on service delivery for adults and among adult areas of intervention, dementia-related needs required 14% of service delivery time (ASHA, 2019). On the AUD side, a survey conducted in 2017 indicated that the most evaluated adult communication disorder (63.1%) was dementia (Davis et al., 2021).

Given that healthcare professionals' attitudes toward people with dementia greatly influence the quality and success of the services they provide (Gerritsent et al., 2019; Surr et al., 2016), it is critical to promote dementia-friendly attitudes among SLPs and AUDs. It is imperative to understand the attitudes of Communication Science and Disorders (CSD) students toward people with dementia and to encourage dementia-friendly attitudes, as they are the next generation of AUDs and SLPs to assist people with dementia and caregivers. However, only a few studies have explored CSD students' attitudes toward people with dementia (e.g., Kaf et al., 2011; Lokon et al., 2017; Mahendra et al., 2013; Oh & Morris, 2021) and the paucity of research makes it challenging to identify mechanisms that foster dementia-friendly SLPs and AUDs.

In order to promote dementia-friendly attitudes, cultural context is an important aspect to consider. Within a cultural context, citizens share ideas, rules, and meanings that result in the general perception of the world (Beancourt & López, 1993). Research has shown that dementia is understood and approached differently from culture to culture (Alladi & Hachinski, 2018; Calia et al., 2019). For example, Indigenous Australians believe that dementia is a disease of privilege-something that is earned by people who live a long life (Cipirani & Borin, 2015). Whereras, Black African and Caribbean communities in the United Kingdom considered it as "a white person's illness" (Berwald et al., 2016).

This provides insight that there are diverse cultural factors that influence the way the disease is recognized and treated (Cipriani & Borin, 2015). Thus, cultivating favorable attitudes toward people with dementia should be tailored to each culture. However, there is a dearth in the literature of cross-cultural research that examine the attitudes toward people with dementia among healthcare professionals. Data on the cultural differences in attitudes toward people with dementia is essential to establish resources to promote more positive attitudes toward the population.

To address this, the current study was designed to fill in the gap between the necessity and scarcity of research by 1) exploring culturally influenced attitudes of CSD majors toward people with dementia and 2) identifying the factors that shape student attitudes. For a cross-cultural comparison, the U.S. and South Korea were chosen based on their burgeoning older adult population, representing Western and Eastern culture respectively. With these two populations in mind, two research questions were formulated:

1) Is there a difference in attitudes toward people with dementia among CSD students in the U.S. and South Korea?

For this research question, it was hypothesized that U.S. and Korean students will show different attitudes toward people with dementia.

2) Which factor(s) plays an important role in shaping the attitudes of each group? Given the exploratory nature of the second research question, no hypothesis was developed.

II. Methods

1. Participants

A total of 399 students participated in this study, which was approved by the institutional review board at Ohio University (20-E-217). The recruitment of participants was completed remotely using a Qualtrics survey. An email including the link to the Qualtrics survey was sent to undergraduate and graduate program advisors of CSD programs in the southeast and mid-west U.S. and South Korea. The program advisors were asked to distribute the link to their students who were classified as having at least a Junior (third year) status. Juniors, seniors, and graduate students were targeted because research indicates that there are significantly lower levels of motivation and mastery of learning goals in first- and second-year undergraduate students (Corker et al., 2013; Lieberman & Remedios, 2007; Stewart et al., 2016).

In the U.S., a total of 691 students received the link and 262 survey responses were returned, which resulted in a response rate of 37.9%. Among the 262 responses, 15 were incomplete and were, therefore, removed. In South Korea, 424 students received the link and 174 students responded with a response rate of 41.0%. However, 22 of the 174 responses were excluded from analysis due to partial completion. Student characteristics can be found in Table 1. Given that the primary aim of this study was a cross-cultural comparison, only students who were born, grew up, and studied in the respective countries of the United States or South Korea were allowed to participate in the current study. This measure was taken as a means to minimize the influences of cultural factors that may stem from external countries.

Table 1. Demographic information

	U.S. students	Korean students
Number of participants	247 (response rate: 37.9%)	152 (response rate: 41.0%)
Gender	232 Women (93.9%)	130 Women (85.5%)
Class level	109 Junior (44.1%) 76 Senior (30.8%) 62 Graduate (25.1%)	47 Junior (30.9%) 74 Senior (48.7%) 31 Graduate (20.4%)
Mean age in years	21.83 (*SD*=3.493)	25.92 (*SD*=5.835)

2. Procedures

The study protocols employed for this study closely followed those used in one conducted by Oh and Morris (2021). In the current study, undergraduate and graduate students majoring in CSD in the U.S. and South Korea, who gave informed consent to participate in the study, were instructed to 1) provide background information, 2) take a short quiz on aging and dementia, and 3) quantitatively respond to a set of statements about dementia.

The background information included demographic items (e.g., age and sex), academic items (e.g., class level and course work), experience items (e.g., work and nonwork experiences), and aspiration items (e.g., willingness to pursue a career in which people with dementia are involved). The quiz, consisting of 25 true · false questions (Oh & Morris, 2021), was used to measure participants' general knowledge about aging and dementia. The background information and quiz were used as independent variables that could potentially affect participants' attitudes toward people with dementia. More detailed information regarding each variable can be found in Table 2.

For this study, attitudes were as measured by the revised Scale of Attitudes toward People with Dementia (rSAPwD). The original SAPwD, developed and validated by Oh and Morris (2021), was revised for better clarity and reliability. The SAPwD is a self-administered Likert-type scale with 22 statements representing a range of opinions regarding people with dementia. In the original SAPwD, participants were instructed to respond to each statement with a number between 0 ("not at all") and 10 ("extremely likely") based on their personal beliefs (e.g., "people with dementia can make positive contributions to our society"). In this study, the rSAPwD was created by modifying the original 10-point Likert scale to a 7-point one to reduce the ambiguity caused by the wide range of choices while maintaining the content validity, per suggestions by Dawes

(2008). Lewis & Erdinç (2017) showed that reducing the number of response options of a Likert-tyle clinical scale does not yield large or practical differences. Similarly, Peterson & Colman (2000) demonstrated that modifying the number or response options does not change the internal consistency or test-retest reliability change between scales with 10 or fewer response categories. Moreover, it has been established that a 7-point scale provides optimal reliability (Symonds, 1924). In addition, some items that apply only to SLPs were rewritten in order to make it applicable to both SLP and audiology students (e.g., "I think speech-language pathologists are not very helpful for people with dementia…" was revised to "I think my profession is not very helpful for people with dementia…").

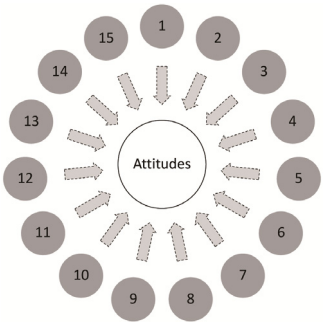
Table 2. Potential predictors of attitudes toward people with dementia

Category	Item	Description
Demographic	Age	Description
	Sex	Participant's age at the time of participation
Academic	Class level	Participant's sex (male or female)
	Course work	Participant's class level at the time of participation
	Enjoyment	Number of gerontology course(s) taken
	Benefits	Enjoyment of the gerontology course(s) taken
Experience	Work experience	Perceived benefits of the gerontology course(s)
	Nonwork experience	Work experience with older adults
	Caregiver	Nonwork experience with older adults (e.g., volunteer)
	Person with dementia	Knowing a dementia caregiver
	Interaction	Knowing a person with dementia
	Care	Personal interaction with a person with dementia
Aspiration	Interest	Providing care for a person with dementia
	Willingness	Interest in aging population
Knowledge	Quiz	Willingness to work with geriatrics

Per the recommendations based on the findings of Oh & Morris (2021), reversal coding was performed for 4 of the 22 statements where a higher rating indicates a more unfavorable attitude (e.g., "There are not many services that my profession can provide for people with dementia"). The final outcome of the rSAPwD was the sum score of the 22 statements that ranged from 0 to 154. As suggested by Oh & Morris (2021), "40%" and "80%" were used to make cutoff scores for "favorable", "neutral", and "negative" attitudes. The specific cutoff scores were determined as follows: Scores between 123 and 154 indicate favorable attitudes; 61 and 122 neutral; and below 61 negative attitudes towards people with dementia. The reliability of the rSAPwD was assessed using Cronbach's alpha (coefficient=.81).

3. Analysis

First, an independent samples *t*-test was employed to compare the two groups' general attitudes toward people with dementia. Second, the assumption of normality for each group's responses was tested using a one-sample Shapiro-Wilk test, as a preliminary step for stepwise regression analyses. Third, the stepwise regression analyses were conducted to understand predictors contributing to attitudes toward people with dementia among U.S. and Korean CSD students respectively. The predictors initially inputted to the stepwise regression analyses for each group can be found in Figure 1. All of the analyses were completed using R version 3.6.3.



Note. 1=age; 2=class level; 3=dementia care experience; 4=enjoyment of the gerontology course(s) taken; 5=interest in aging population; 6=knowing a dementia caregiver; 7=knowing a person with dementia; 8=non-work experience with older adults; 9=perceived benefit of the gerontology course(s) taken; 10=personal interaction with a person with dementia; 11=quiz; 12=sex; 13=the number of gerontology course(s) taken; 14=willingness to work with geriatrics; 15=work experience with older adults.

Figure 1. Fifteen potential predictors of students' attitudes (Alphabetically sorted)

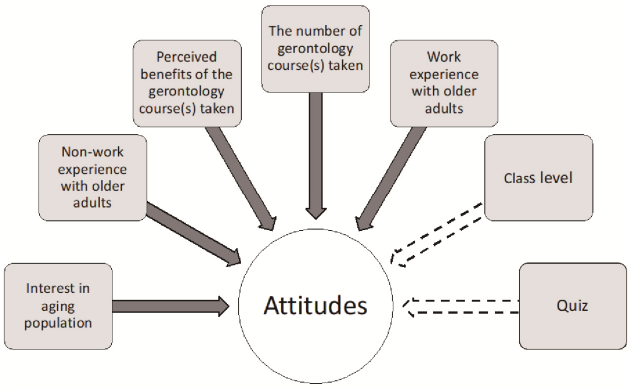
Ⅲ. Results

Overall, both the U.S. and Korean groups showed neutral attitudes toward people with dementia. The mean rSAPwD score of the U.S. group was 112.15 (*SD*=27.979) and that of the Korean group was 84.76 (*SD*=20.127). Inspite of the neutral attitudes toward people with dementia, the independent samples t-test demonstrated that the U.S. students scored significantly higher on the rSAPwD as compared to the Korean students, $t(387.40)=11.341$, $p=.000$, 95% confidence interval (CI)=[22.644, 32.142], where $t(387.40)$ was based on the unequal variances of the two groups($F_{(397,\ 387.40)}=22.277$, $p=.000$).

The Shapiro-Wilk test indicated that the rSAPwD responses of the U.S. students ($D(247)=.939$, $p=.122$) were normally distributed. Based on the normality of the data, the stepwise regression analysis was conducted. In other words, each of the 15 variables was considered for addition to or subtraction from the set of explanatory variables to be used as part of a model. Thus, the most predictive set of variables were identified, even if they were not found to be significant on their own, as part of that respective group's final model.

For the U.S. group, the stepwise regression entered 7 out of the 15 variables into the final model, of which adjusted R2 was .693, indicating a substantial model fit (Chin, 1998). Of the 7 variables in the final model, 5 were found significant (Table 3). The 7 variables included in the final model and the 5 significant predictors can also be found in Figure 2.

In general, U.S. students that were more interested in the aging population ($\beta=4.595$, $t=7.261$, $p<.0001$), had taken more courses on gerontology ($\beta=6.449$, $t=7.265$, $p<.001$), and showed more positive attitudes toward people with dementia. When it comes to the coursework, student perception of benefits was important. When the students perceived their gerontology courses as beneficial for their career, their attitudes toward people with dementia improved ($\beta=1.022$, $t=2.210$, $p<.05$). In addition, students' work ($\beta=5.213$, $t=2.281$, $p<.05$) and non-work ($\beta=4.576$, $t=3.384$, $p<.001$) experiences with older adults were also influential to their attitudes toward people with dementia. Given the nature of the significant predictors being either continuous or 2-level comparisons, no post-hoc test was administered.



Note. Dashed arrows indicate non-significant factors.

Figure 2. Five significant predictors of the U.S. students' attitudes

The responses to rSAPwD items among Korean students were also normally distributed ($D(152)=.983$, $p=.078$). Among the 15 variables, 8 were entered into the final model of the stepwise regression analysis, with an adjusted R2 of .341, indicating a moderate model fit (Chin, 1998). Of the 8 variables, 5 were found to be

Table 3. Final model of the stepwise regression analysis for U.S. students

	df	*F*-value	*p*-value
Interest in aging population	1	52.724	.0000000***
Non-work experience with older adults	1	11.449	.0008362***
The number of courses of gerontology course(s) taken	1	52.779	.0000000***
Perceived benefits of the gerontology Course(s) taken	1	4.884	.0280594*
Work experience with older adults	1	5.205	.0234114*
Quiz	1	2.801	.0954220
Class level	2	1.539	.2166435

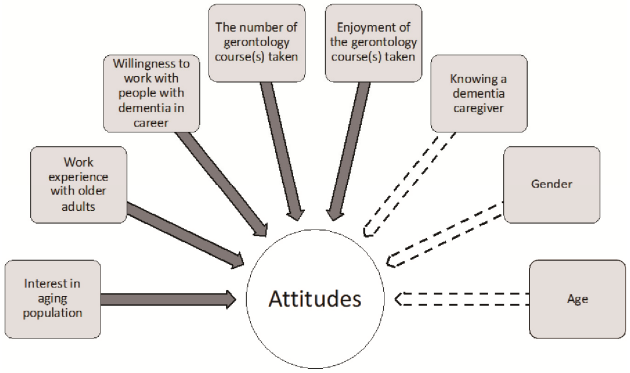
*$p<.05$, ***$p<.001$

Table 4. Final model of the stepwise regression analysis for Korean students

	df	*F*-value	*p*-value
Interest in aging population	1	12.1314	.0006582***
The number of courses of gerontology course(s) taken	1	6.9491	.0093120**
Enjoyment of the gerontology course(s) taken	1	9.3748	.0026287**
Willingness to work with people with dementia in career	1	6.7821	.0101798*
Work experience with older adults	1	6.5481	.0115393*
Knowing a dementia caregiver	1	3.5457	.0617299
Gender	1	1.9232	.1676579
Age	1	1.3876	.2407757

*$p<.05$, **$p<.01$, ***$p<.001$

significant predictors of Korean students' attitudes toward people with dementia (Table 4). The 8 variables included in the final model are illustrated in Figure 3.



Note. Dashed arrows indicate non-significant factors.

Figure 3. Five significant predictors of the Korean students' attitudes

Similar to the U.S. students, the Korean students demonstrated more positive attitudes toward people with dementia when they were interested in the aging population (β= 6.440, t=3.438, p<.001), had taken more courses on gerontology (β=7.317, t=2.636, p<.01), and had work experience with older adults (β=7.523, t=2.559, p<.05). However, unlike the U.S. group's, the Korean group's attitudes toward people with dementia were significantly dependent on how much they enjoyed the gerontology course(s) they had taken (β=3.3176, t=3.062, p<.01) and whether they were willing to pursue a career involving people with dementia (β=7.871, t=2.604, p<.05). Given the continuous nature of the significant predictors, no post-hoc test was administered. Because all of the significant predictors were either continuous or 2-level comparisons, no post-hoc test was needed.

Ⅳ. Discussion and Conclusion

This study was designed to explore attitudes of Korean and U.S. CSD students toward people with dementia and to investigate factors shaping each group's attitudes. Although the U.S. group scored significantly higher on the rSAPwD compared to the Korean group, both groups showed neutral attitudes toward people with dementia. When considering that these students will likely work to some extent with older adults experiencing negative decline, these findings indicate an opportunity for respective programs to develop strategies that would promote favorable attitudes. Additionally, this could be an effort that begins early in an academic program, as it may prove influential in a student's appreciation for the complex factors that shape the aging experience of an older adult diagnosed with dementia.

Factors that affected attitudes of both groups were 1) their interest in aging population, 2) the volume of coursework they completed, and 3) their work experience with older adults. While perceived benefits of the coursework and work experience with older adults had a significant impact on the U.S. group's attitudes, Korean students' attitudes were more dependent on how much they enjoyed the gerontology courses they had taken and how much they are willing to work with older adults in future career. Based on the findings of the current investigation, Korean students appear to be affected by intrinsic factors more so than U.S. students. U.S. students, on the other hand, appeared to value knowledge and application. For example, it is worth noting that although the U.S. students indicated that work experience with older adults influenced their overall attitude, they did not indicate a significant disposition for their willingness to work with older adults in their future career. One might assume that if a student gains experience working with an older adult then s/he may be more inclined to continue that path in their career, especially when considering that there was an overall indication of perceived benefits of gerontology courses. Thus, this provides pause to consider the nature of those engagements and how those experiences resonated with the students. This could be another opportunity for exploration and growth among faculty as they endeavor to promote both a richer understanding of dementia and how such interactions are likely to emerge in specific career paths. For example, redesigning a gerontology course to include more hands-on experiences and/or practice-based learning as suggested by Kaf et al. (2011) and Surr et al. (2017) or developing a workshop for students to meaningfully engage with dementia caregivers as seen effective in Garrie et al. (2016) may be helpful.

On the other hand, it is a positive sign that, overall, Korean students indicate that they enjoy their gerontology courses and are more willing to work with persons with dementia. Nonetheless, one may assume that students who indicated more intrinsic-based values, such as enjoying gerontology courses and a willingness to work with population, would have a more positive attitude toward the older adult population. This lens offers a framework for examining how Korean curriculum could promote application opportunities, such as positive work experiences. In addition, it is worth noting that although

Korean students indicated a great level of enjoyment of courses, they did not indicate a significant level of perceiving benefits from their courses. Again, this is an opportunity for instructors to underscore the application of course concepts.

In this study, the impacts of the level of education and knowledge on CSD students' attitudes toward people with dementia were non-significant. Although previous studies demonstrated that the two are critical factors for one's attitudes toward people with dementia (e.g., Kane et al., 2004; Kimzey et al., 2016; Roper et al., 2001), more recent studies have shown that level of education and knowledge do not play an important role in shaping attitudes toward people with dementia (e.g., Akifusa et al., 2019; Hunter & Divine, 2021; Oh & Morris, 2021). Yet, given that attitudes of the participants of the current study toward people with dementia, regardless of their cultural backgrounds, were significantly more favorable when they completed more gerontology courses, providing CSD students with more well-designed courses that focus on older adults with and without dementia may be an effective approach to promoting positive attitudes toward people with dementia. In particular, based on the findings of the present study, when designing CSD curriculum, considerations should be put on courses incorporating in-person experience with older adults and stimulating students' interest in older population. To help students develop positive attitudes toward people with dementia, researchers have claimed that offering a course through which students can interact with older adults is more effective than instructing knowledge on dementia to students (e.g., Bickford et al., 2019; Evripidou et al., 2019; Scerri & Scerri, 2013; Staples & Killian, 2012). This implies that training future healthcare professionals, such as the future SLPs and audiologists in this study, via personal engagement is more important than implanting knowledge to assist them in providing quality services in the future.

Similar to the education and knowledge levels, sex of participants did not play an important role in shaping positive attitudes among CSD students. It is a noteworthy finding given the literature showing stronger empathy in female healthcare students than male students across cultures (Hasan et al., 2013; Santos et al., 2016; Shariat & Habibi, 2013; Wen et al., 2013). This little impact of sex may be attributed to the discrepancy in number of male and female participants in this study, with most being women. In addition, both direct and indirect caregiving experiences and personal interaction with people with dementia did not affect attitudes of CSD students toward people with dementia, regardless of their cultural backgrounds. The non-significant impact of caregiving experiences may be attributed to the fact that the participants of the study were mostly in their early 20s with limited caregiving experiences. Of the 399 participants, 100 students had direct and 172 had indirect caregiving experience.

For the current study, U.S. and Korean students were recruited to represent the Western and Eastern cultures. The widely accepted Eastern-Western dichotomy focuses on the underlying differences in attitudes between the two broad cultures: collectivism in Eastern versus individualism in Western cultures (van der Steen et al., 2013). Based on the cultural concepts, it is often believed that people from Eastern cultures are more respectful to older adults compared to those from Western cultures. This bias is supported by research findings such as Indian nursing students demonstrating favorable attitudes toward Alzheimer's disease and related dementias (Poreddi et al., 2015); European healthcare professionals holding stigma on dementia, which, in turn, delays dementia diagnosis (Hermann et al., 2018). However, emerging evidence shows that in the modern society, economy and organization of population may play a more important role in attitudes toward aging than the cultural values (Löckenhoff et al., 2009). With regards, some studies offer findings contradictory to the Western-Eastern dichotomy. For example, Woo & Mehta (2016) demonstrated that Chinese Americans possessed more negative perceptions and stigma around dementia than diabetes. Similarly, a recent systematic review reported widespread negative attitudes among Chinese healthcare professionals (Zhao et al., 2020). The findings of the current study also demonstrate that both U.S. and Korean CSD students had neutral attitudes toward people with dementia, despite the fact that the U.S. group scored significantly higher on the rSAPwD. Some factors were found important regardless of the cultural differences, while others affected the two groups differently. The findings imply that the Western-Eastern dichotomy is not an absolute concept and investigations should focus on individual factors affecting attitudes toward people with dementia, rather than stereotyping collectivism in Eastern cultures vs. individualism in Western cultures; or respected old age in Eastern cultures vs. treasured youth in Western cultures. Nonetheless, it must be emphasized that the findings merely highlight cultural influence that merit further investigation and assessment including more qualitative studies.

In sum, the findings of the current investigation imply that 1) understanding factors shaping attitudes toward

people with dementia in future healthcare professionals is more meaningful than exploring what their current attitudes toward the population are 2) some factors affecting their attitudes are common across cultures and 3) factors that work differently should be more carefully investigated because the difference may have been due to cultural influence or to other underlying reasons. Some strategies to promote dementia-friendly attitudes in both groups of students are to encourage them to take more gerontology courses, provide formal opportunities to interact with older adults (i.e., paid and unpaid work experience), and stimulate their interest in general aging population. For successful implementation of these strategies, clinical competencies and standards required by ASHA and Korean Speech-Language and Hearing associations may need to be revisited and/or revised, CSD programming redesign may be required, or at a smaller scale, course redesign can be completed. The factors affecting each group differently provide an idea of how to better promote dementia-friendly attitudes among U.S. and Korean CSD students respectively. For example, providing non-work experience with older adults such as opportunities to visit a community for older adults will be helpful for U.S. students while Korean students will benefit more from work experience with people with dementia, with particular focus on rewarding aspects rather than emphasis on challenges of the work. Through these efforts, CSD will likely become more friendly to people with dementia, which will positively impact their clinical practice in the future.

Some limitations of the study should be addressed in future explorations. First, the factors differentially affecting U.S. and Korean students' attitudes should be further investigated to clearly understand the extent of cultural influence. To overcome this limitation, well-designed mixed-methods studies may be helpful as they provide more in-depth information regarding participants' thoughts and attitudes. Second, some items such as coursework the participants completed can be supplemented with more detailed responses. Based on the finding that students' work experience affected their attitudes, the design of each course (e.g., service-learning, clinical observation, etc.) needs to be considered. Likewise, questions about work, nonwork and caregiving experiences should require elaborated responses instead of yes/no responses. Finally, studies exploring attitudes of CSD students as well as practicing SLPs and audiologists will provide meaningful implications on how to effectively train future SLPs and audiologists to be advocates for people with dementia.

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