

Identifying Common Daily Activities Performed by Older Adults in the United States and South Korea and Changes in Activity Participation Across the Adult Lifespan in South Korea

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Abstract

Objective : This study aimed to identify common activities with similar participation levels between community-dwelling individuals in the United States (US) and South Korea (Study 1), and analyze the changes in activity participation patterns across the adult lifespan in South Korea (Study 2).

Methods : We administered the online survey-based Activity Card Sort version 3 (ACS-3) to adults living in the US and South Korea. In Study 1, we computed the average participation level and visualized 100 activities of the ACS-3 from both the US and Korean samples. The average participation level across the four age groups in Study 2 was calculated and visualized to understand the changes in patterns of involvement across the four ACS-3 domains in a Korean sample.

Results : In Study 1, data from 161 Americans and 163 Koreans were analyzed. Of the 100 activities, 48 (instrumental: 20; leisure: 13; fitness/health: 6; social: 9) demonstrated similar levels of participation between the two samples. In Study 2, data from 420 Koreans were analyzed and a tendency for decreased participation with age was found in all domains, except for the instrumental domain.

Conclusion : Common daily activities may be used as a means of intervention across cultures in occupational therapy. Protective approaches and support are recommended to optimize older adults' participation in daily life.

Keywords : Activity participation, Aging, Culture, Lifespan, Occupational justice

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I. Introduction

Successful occupational engagement is associated with better quality of life and self-esteem (Kim et al., 2017). Satisfactory levels of participation, defined as involvement in life situations (World Health Organization, 2001), can positively contribute to subjective health and quality of life, and reduce stress (Park et al., 2021). Thus, participation needs to be considered as a primary outcome in health services (WHO, 2001). Moreover, since active participation in daily activities and occupations is a key indicator of healthy aging in older adults (Havighurst, 1968), it is critical to investigate participation in various activities and occupations in older adults.

Participation in daily activities can be influenced by cultural background (Stevenson & van Brakel, 2013). For example, cultures can prioritize differently occupational choice, preference, pattern, or mobility, thereby leading to differences across cultures in participation in various occupational areas including activities of daily living, education, work, leisure, play, and social activities (Bonder & Anetzberger, 2018). Some activities may be universal across cultures; however, other activities including making kimchi in South Korea (here after, Korea) or collecting in the United States can be heavily influenced by cultural factors (Eriksson et al., 2011).

In occupational therapy services, it is essential to identify common daily activities across cultures to help occupational therapists have therapeutic activities and occupations that can be accepted and employed as a means of interventions across cultures (Eriksson et al., 2011). Participating in daily activities and occupations is a human right, which contribute to fostering an inclusive society (Hocking, 2017; Pereira

& Whiteford, 2013). However, external factors such as disabilities and socioeconomic status can limit an individual's right to make occupational choices according to their own preferences, thereby leading to inequities in participation in daily activities and occupations. To prevent inequities in participation in daily activities and occupations caused by cultural differences, it is necessary to recognize common activities and occupations performed across cultures, which need to be protected regardless of cultural and functional differences. (Hocking, 2017; Muñoz, 2018). However, to our knowledge, a single study conducted in 2011 has identified 10 activities (e.g., shopping in a store, shopping for groceries, doing dishes, doing laundry, reading magazines and books, sitting and thinking, watching television, listening to radio and music, visiting with friends and relatives, talking on the phone) which are central to older adults living in both Western and Asian cultures (Eriksson et al., 2011), thus, a new study is required to address the gap caused by 13 years and the development of an assessment tool that includes more contemporary activities (Activity Card Sort 3: Daily Life Participation; Bright Outcome Inc.).

Moreover, the United States has a Western-European cultural heritage while Korea has a culture which has been traditionally influenced by various neighboring Asian countries such as China and Japan. However, considering that Western influence has changed cultures in Korea (Pechishcheva & Korneev, 2023) and the increased amount of immigration between the United States and Korea, it is crucial to identify activities and occupations that are common to both the United States and Korea so that occupational therapists can use common activities to prevent occupational inequality caused by cultural differences.

Lifespan transition is another influential factor for participation in daily activities because changes in personal characteristics, environment, or maturation, and decline of process skills can influence participation in daily activities (Hasselkus, 2011). For example, cognitive aging can interact with health conditions, occupational experiences, culture, or environment and, thus, it can contribute to changes in occupational patterns (Levy, 2018). Similarly, chronic conditions (e.g., stroke, heart disease, arthritis) may also be linked to changes in daily activities in which individuals participate as they age. Therefore, given that retaining active participation in daily activities is an indicator of successful aging (Havighurst, 1968), it is critical to understand changes in activity participation across the adult lifespan to prevent potential loss of daily activities occurring across the adult life span.

Therefore, the primary objectives of the current investigation were addressed in two studies. Their objectives were: Study 1) to compare the daily activities of community-dwelling individuals aged 50 and older in the US and Korea to identify common daily activities in which people have similarly participated in both the US and Korea, and Study 2) to explore changes in participation patterns across the lifespan in adults in Korea.

II. Methods

1. Korean participants and data collection

The protocol regarding collecting data from Korean participants was approved by the Institutional Review Board (IRB) of Yonsei University Mirae Campus (Approval number: 1041849-202308-SB-157-02).

Inclusion criteria for Koreans were 1) 18 years old or older, 2) Korean citizenship, 3) Community-dwelling people who are resident in Korea during the late five years, 4) self-perceived health condition was cognitively, emotional, and physically healthy enough to manage independent living. Data were collected online. Individuals who meet inclusion criteria were able to voluntarily participate in the survey.

To compare the activities commonly performed in older adults in both countries, we collected data from people who are older than 50 years old to minimize cultural differences caused by age differences. Data from a comparable number of individuals aged 50 and older for study 1 was ensured by setting four different age groups for the study 2 sampling (i.e., at least 105 participants included in Group 4 and a partial participants in Group 3 additionally). For the study 2, an equal amount of data was collected from the four age groups (i.e., Group 1: 18~24 years, Group 2: 25~44 years, Group 3: 45~64 years, Group 4: 65 years and older). The youngest group age was determined in accordance with the Framework Act on Juveniles, wherein individuals under 25 (Group 1) are considered juveniles. The oldest group (Group 4) age was determined in accordance with the Welfare of Senior Citizen Act, wherein individuals aged 65 and older are considered older adults. Participants aged between 25 and 64 were divided into two groups (Group 2 and Group 3).

2. US participants and data collection

For study 1, we used data from 161 healthy adults (aged 50 or older) living in the US to compare daily activities of Koreans and Americans. We recruited participants through the Volunteers for Health Registry

at a university located in the Midwestern US from March to August 2022. Participants answered questions from an online survey-based ACS-3 (English version) and reported their demographic information. The IRB approved the process of this data collection (IRB No. 02204108).

3. Assessments

1) Activity Card Sort Version 3 (ACS-3): Activity Participation

The ACS measures retained activity participation (Baum & Edwards, 2008). We used the 3rd edition of ACS (ACS-3) consisting of 100 activities (27 instrumental, 35 leisure, 23 fitness/health, and 15 social activities) (ACS-3: Daily Life Participation, 2024). The ACS-3 is an updated version of 2nd edition of ACS (ACS-2). Although the ACS-3 addresses social changes over the past 15 years since ACS-2 was developed, many of the activities included in both editions match each other. The ACS-3 has high acceptability and concurrent validity with ACS-2 (Boone et al., 2022). To obtain retained activity participation, participants are first asked to divide the activity cards into “never done in 5 years” or “ever done in 5 years” piles, then they re-categorized the cards selected as “ever done” into “continue to do at the same level over the past 5 years”, “started to do (new) in the past 5 years”, “doing less now than previously”, or “have given up in the past 5 years”. The total activity retention is calculated according to the following formula (Baum & Edwards, 2008; Boone et al., 2022).

For international versions of the ACS, items were

translated and then removed or newly added for cultural adaptation (Eriksson et al., 2011). In Korea, 67 items of the Korean version of ACS, which were culturally revised and validated with Korean population, have been used since 2010 (Lee et al., 2010). Applying the translated ACS-3 without modifying or adding items to assess Korean older adults is appropriate for identifying shared daily activities between the two cultures.

The ACS has been used to examine variation in participation across different ages or functional level groupings (Chan et al., 2006; Doney & Packer, 2008; Sachs & Josman, 2003). Differences in the construct factors of participation between younger and older adults was confirmed with an Israeli sample (Sachs & Josman, 2003). Different patterns of participation based on aging with Australian sample (Doney & Packer, 2008) and functional levels with Hong Kong sample (Chan et al., 2006) were reported. Hence, applying the ACS-3 is appropriate to detect the similarity and differences in patterns of daily activities across the lifespan in adults.

2) Translating the ACS-3

Two aims of this study were to explore the commonality of participation across cultures and parts of the lifespan. To do this, we used the ACS-3 to assess activity participation in both Americans and Koreans on the same items without modifying items for cultural validation. None of the items were reported as “never done” in Koreans, we assume that Koreans have experienced all the items listed in ACS-3 although cultural adaption has not been

$$Total\ Activity\ Retention\ (\%) = \left[\frac{Current\ Activity\ Level\ (New + 0.5\ X\ Doing\ Less +\ Continue\ to\ Do)}{Previous\ Activity\ Level\ (Ever\ Done\ in\ 5\ Years)} \right] \times 100$$

made. Two authors of the current study were involved in translating the original 100 items from the ACS-3 into Korean. A Korean translated version was back-translated by two bilingual persons who are currently living in the US. The two back-translated versions were reviewed by one of the professionals who participated in development study for the ACS-3. Items included in the both back-translated version were confirmed acceptable. However, providing examples for some items were recommended to assist with understanding [e.g., 'Home maintenance' items were revised as 'Home maintenance (e.g., drain cleaning, air conditioner/heater repairment)'].

3) Sociodemographic information

Age, gender (1: male, 2: female), year of education, marital status (1: single, 2: married, 3: separated/divorced, 4: widowed), employment status (1: full-time student, 2: stay at home mom/dad, 3: employed, 4: between jobs, 5: retired), disability (1: no, 2: yes), socioeconomic status (1: very low, 2: low, 3: medium, 4: high, 5: very high) and subjective health (1: very unhealthy, 2: unhealthy, 3: medium, 4: healthy, 5: very healthy) of the participants were collected.

4. Statistical analysis

For study 1 (Differences in older adults' daily participation across cultures), descriptive analysis and a chi-square test were conducted to examine homogeneity of age and gender between the Korean and US sample. An independent t-test was conducted to examine difference in average participation levels between the two samples. The original scoring formula of the ACS-3 calculates the activity retention rate for an individual. A revised formula was applied

to obtain averaged participation levels across 100 activities (i.e., summed score of the participants' level of participation for one activity ÷ number of participants who has ever participated in the activity × 100). Averaged participation levels for 100 activities were categorized into the four domains (i.e., instrumental, leisure, fitness/health, social activity) and visualized to demonstrate the similarity of average participation level between two cultures. Activities with a difference of less than 10% between the two cultures were operationally defined as having a similar level of participation.

For study aim 2 (Changes of daily participation across the adult lifespan), the same formula was employed to calculate the average participation level for the four domains of the ACS-3. The ANOVA and post-hoc analyses were conducted to compare average participation levels among different age groups. The four average participation levels were visualized by a radar chart demonstrating the changes in the pattern of participation across lifespan. SAS 9.4 (SAS Institute Inc.) was used for descriptive analysis, chi-square test and independent t-test. Microsoft excel was used for visualization.

III. Results

A total of 420 Korean participants completed the online survey from November 10th to 14th 2023. There were no missing values in the survey data. Out of 420 total respondents, we used data from participants aged 50 and older (N = 163) for study 1. All data collected (N = 420) were used for the study 2.

1. Study 1 (Comparing daily participation in older adults across cultures)

The age and gender compositions differed between the two samples (Table 1). The participation levels for the total score, leisure domain, and fitness/health domain were statistically higher in the US

sample compared to the Korean sample (Table 1).

Participation levels for each item in the four domains were graphically represented using dots to indicate the average levels, while bars illustrated the differences between the two samples (Figure 1-4). The blue dots indicated the average participation levels of Americans, while the orange dots indicated those

Table 1. Age, Gender, Average Participation Levels of US and Korean Sample (N = 324)

	US (n=161)	Korean (n= 163)	p-value
Age			
50~59	53 (32.92%)	48 (29.45%)	
60~69	51 (31.68%)	96 (58.89%)	< .001***
70 ≤	57 (35.40%)	19 (11.66%)	
Gender			
Male	38 (23.60%)	83 (50.92%)	
Female	123 (76.40%)	80 (49.08%)	< .001***
Average participation level			
All activities (100 items)	77.79 ± 12.99	67.22 ± 20.00	< .001***
Instrumental domain (27 items)	84.02 ± 13.04	81.83 ± 15.85	.582
Leisure domain (35 items)	79.43 ± 10.86	63.51 ± 16.73	< .001***
Fitness/Health domain (23 items)	67.79 ± 13.05	52.73 ± 20.28	.004**
Social domain (15 items)	78.07 ± 8.86	71.79 ± 14.85	.171

The sum of the percentages does not equal 100% because of rounding.

Race composition in the US sample (N=161): American Indian/Alaska Native (2), Black (18), White/Caucasian (136), Other (4), Refused to respond (1); Year of education in the Korean sample (N = 163) (Mean ± Standard Deviation): 14.87 ± 2.50.

***p < .001, **p < .01.

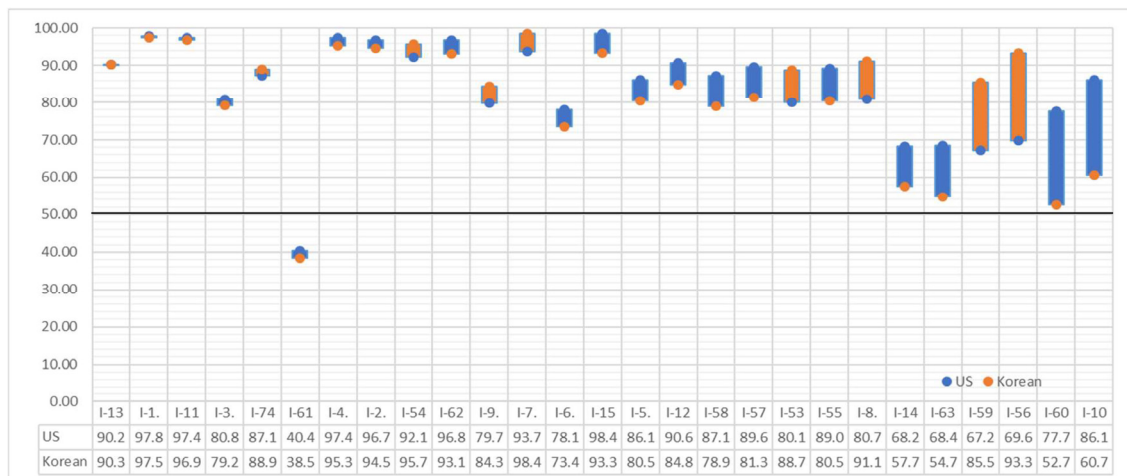


Figure 1. Differences in Average Levels of Participation for the Instrumental Activities (27 items)

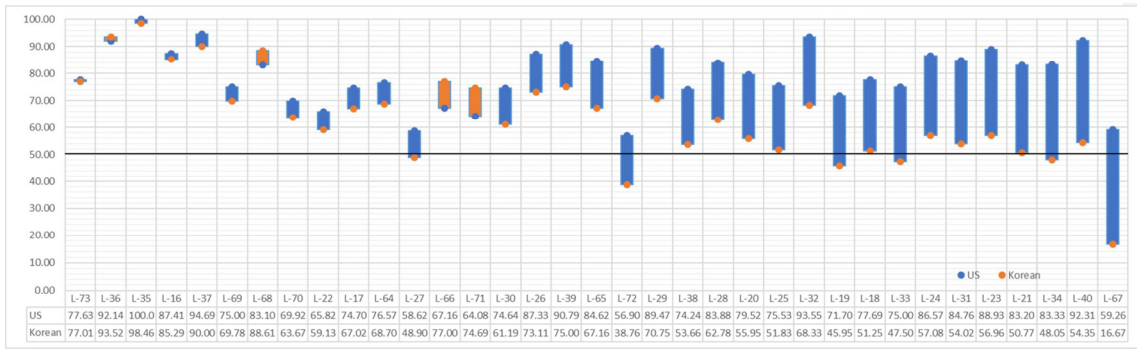


Figure 2. Differences in Average Levels of Participation for the Leisure Activities (35 items)

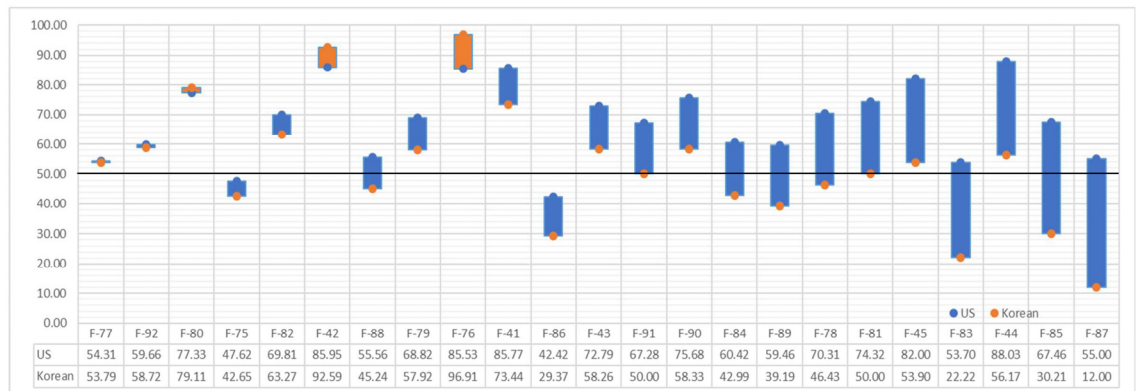


Figure 3. Differences in Average Levels of Participation for the Fitness or Health Activities (23 items)

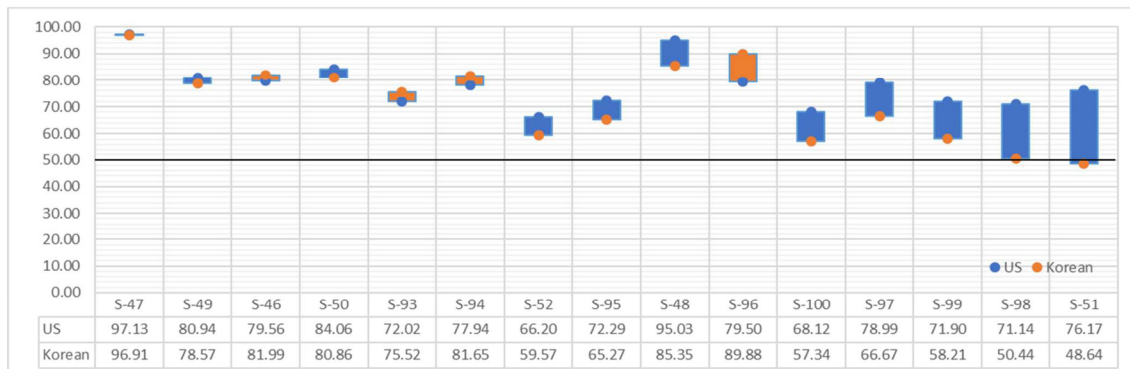


Figure 4. Differences in Average Levels of Participation for the Social Activities (15 items)

of Koreans. The orange bars represented activities dominant in the Korean sample, while the blue bars represented activities dominant in the US sample.

A dot positioned closer to 100 indicated a higher retention of participation over the last 5 years in

the activity among the individuals in the group. On the contrary, a dot closer to 0 indicated a lower retention of participation over the last 5 years in the activity among the individuals in the group.

A list of 100 activities are available in ACS-3

webpage (Activity Card Sort 3, 2024). In the instrumental activity domain, 20 activities out of 27 demonstrated similar levels of participation across two cultures (Figure 1). Those were Cooking (I-13), Doing Dishes (I-1), Paying Bills (I-11), Yard Maintenance (I-3), Barber/Hairdresser/Manicure (I-74), Taking Out Trash (I-4), Doing laundry (I-2), Shopping for Groceries (I-54), Going to Doctor (I-62), Household Projects (I-9), Light Cleaning (I-7), Ironing (I-6), Managing Mail (I-15), Mending/Sewing Clothes (I-5), Taking Care of Plants (I-12), Car Maintenance (I-58), Getting Gas (I-57), Shopping for Clothes/Tools (I-53), and Driving (I-55). Although the level of participation was below 50, the Study for School (I-61) also demonstrated similar level across two cultures.

In the leisure activity domain, 13 activities out of 35 demonstrated similar levels of participation across two cultures (Figure 2). Those were the Photography (L-73), Watch TV (L-36), Browsing Internet/Shopping (L-35), Cooking for Fun (L-16), Listen to Music (L-37), Visit Museums (L-69), Go to Park (L-68), Attend Concerts

(L-70), Collecting Items (L-22), Sewing Projects (L-17), Driving for Pleasure (L-64), Playing Musical Instrument (L-27), and Window Shopping (L-66).

In the fitness/health activity domain, 6 activities out of 23 demonstrated similar levels of participation across two cultures (Figure 3). Those were Running (F-77), Bicycling (F-92), Weight Training (F-80), Hiking (F-82), and Exercise (F-42). Although the level was below 50 in both samples, the Extreme sports (F-75) also demonstrated similar level of participation.

In the social activity domain, 9 activities out of 15 demonstrated similar levels of participation across two cultures (Figure 4). Those were the Text Messaging (S-47), Visiting with Family (S-49), Family Gatherings (S-46), Being with Friends (S-50), Study for School/Personal Advancement (S-93), National Travel (S-94), Intimacy (S-52), International Travel (S-95) and Email/Social Media (S-48).

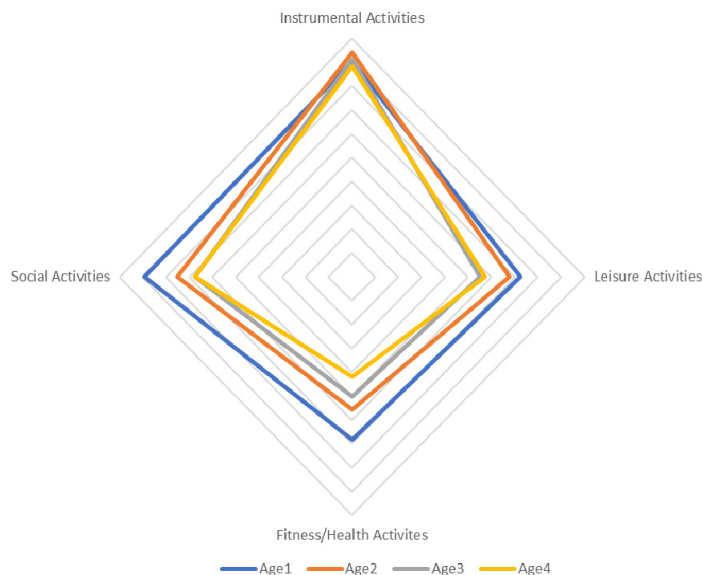


Figure 5. Changes of Pattern in Daily Participation Across Lifespans

Range of age in each group: Age 1 (18~24), Age 2 (25~44), Age 3 (45~64), Age 4 (65 years and older).

2. Study 2 (Changes of daily participation across lifespans)

Average levels of participation across four domains of four age groups were visualized using a radar chart (Figure 5). A shape with a wider area and closer to a perfect square indicates that participation levels

are being retained across activities of four domains. The older age group showed smaller squares. The variations in participation in instrumental activities across four age groups were subtle. Participation in leisure and social activities decreased with age, however, the difference between age group 3 and 4 was minimal. Participation in fitness/health activities

Table 2. Sociodemographic Information and Average Participation Levels in Korean Adults (N = 420)

	Group 1 (n = 105)	Group 2 (n = 105)	Group 3 (n = 105)	Group 4 (n = 105)
Age	21.56 ± 1.95	35.56 ± 5.63	51.15 ± 5.01	67.95 ± 3.17
Year of education	13.65 ± 1.69	15.48 ± 1.69	15.30 ± 2.18	14.67 ± 2.61
Socioeconomic status	2.75 ± 0.95	2.88 ± 0.87	2.87 ± 0.75	2.72 ± 0.71
Subjective health	3.34 ± 0.88	3.30 ± 0.83	3.14 ± 0.75	3.29 ± 0.73
Gender (Female)	53 (50.48%)	52 (49.52%)	53 (50.48%)	52 (49.52%)
Marital status				
Single	104 (99.05%)	50 (47.62%)	15 (14.28%)	2 (1.91%)
Married	1 (0.95%)	51 (48.57%)	82 (78.10%)	84 (80.00%)
Separated/divorced	0	4 (3.81%)	4 (3.81%)	9 (8.57%)
Widowed	0	0	4 (3.81%)	10 (9.52%)
Employment status				
Full-time student	73 (69.53%)	1 (0.95%)	0 (0%)	0 (0%)
Stay at home mom/dad	0 (0%)	9 (8.57%)	20 (19.05%)	29 (27.62%)
Employed	25 (23.81%)	85 (80.96%)	76 (72.38%)	41 (39.05%)
Between jobs	6 (5.71%)	9 (8.57%)	9 (8.57%)	21 (20.00%)
Retired	1 (0.95%)	1 (0.95%)	0 (0%)	14 (13.33%)
Disability				
No	105 (100%)	103 (98.10%)	102 (97.14%)	96 (91.43%)
Yes	0 (0%)	2 (1.90%)	3 (2.86%)	9 (8.57%)
Average participation level				
All activities (100 items) ¹	79.67 ± 13.78	77.63 ± 13.39	73.72 ± 14.59	72.68 ± 14.41
Instrumental Domain (27 items) ²	85.22 ± 12.47	87.09 ± 10.93	85.57 ± 11.68	84.17 ± 11.67
Leisure Domain (35 items) ³	76.14 ± 17.56	73.79 ± 16.54	67.50 ± 19.72	68.57 ± 17.77
Fitness/Health Domain (23 items) ⁴	74.06 ± 20.53	67.73 ± 21.04	65.12 ± 22.10	60.87 ± 20.34
Social Domain (15 items) ⁵	84.57 ± 14.09	77.62 ± 15.95	73.71 ± 16.02	73.72 ± 17.16

The sum of the percentages does not equal 100% because of rounding.

Range of age: Group 1 (18~24), Group 2 (25~44), Group 3 (45~64), Group 4 (65+).

Results of ANOVA: ¹ F (3, 416) = 5.75, *p* = .001^{**}; ² F (3, 416) = 1.12, *p* = .34; ³ F (3, 416) = 5.59, *p* = .001^{**}; ⁴ F (3, 416) = 7.24, *p* < .001^{***}; ⁵ F (3, 416) = 10.959, *p* < .001^{***}.

Results of post-hoc (Scheffe): ¹ Group 1 versus Group 3: *t* (3) = 5.95, *p* = .025^{*}, Group 1 versus Group 4: *t* (3) = 6.99, *p* = .005^{**}; ³ Group 1 versus Group 3: *t* (3) = 8.64, *p* = .007^{**}, Group 1 versus Group 4: *t* (3) = 7.57, *p* = .026^{*}; ⁴ Group 1 versus Group 3: *t* (3) = 8.94, *p* = .024^{*}, Group 1 versus Group 4: *t* (3) = 13.18, *p* < .001^{***}; ⁵ Group 1 versus Group 2: *t* (3) = 6.95, *p* = .019^{*}, Group 1 versus Group 3: *t* (3) = 10.86, *p* < .001^{***}, Group 1 versus Group 4: *t* (3) = 10.85, *p* < .001^{***}.

^{***}*p* < .001, ^{**}*p* < .01, ^{*}*p* < .05.

decreased with age and the differences between groups were clear (Table 2).

IV. Discussion

In study 1, average participation levels across four domains of the ACS-3 were compared between a community-dwelling sample aged 50 and older living in the US and Korea to identify common activities that are similarly retained with age in both the US and Korea. We found that participants from both countries report similar activities such as cooking, browsing internet/shopping, weight training, text messaging, etc. These activities may be considered as potential therapeutic occupations widely accepted in multicultural society.

A previous study conducted in 2011 (Eriksson et al., 2011) identified 10 activities that were found to be common in both Asian and Western cultures, including Korea and the US. These activities include shopping in a store, shopping for groceries, doing dishes, doing laundry, watching TV, and visiting with families and friends. However, the findings of this study revealed that reading magazines and books, sitting and thinking, listening to radio/music, and talking on the telephone were no longer commonly performed in both countries. This change may be attributed to social changes that have occurred since the study was published. Therefore, when occupational therapists select activities and occupations as a means of interventions, it would be helpful to consider the influence of social changes on occupational patterns, in order to prevent inequality in participation in occupations across cultures.

Advantages of using these activities as a means

of interventions were supported by the results in previous studies. Benefits of cooking activities in the rehabilitation and community setting on older adults' cognitive and emotional health were reported (Farmer et al., 2018; Jung et al., 2011). The positive associations of using Information and Communication Technology (ICT) with psychological well-being and social network protection in older adults were reported (Heo et al., 2015; Nedeljko et al., 2021). Community-based programs designed and currently being provided for senior citizens such as cooking classes, smartphone classes or exercise programs can be used to overcome barriers to daily participation for both community-dwelling older adults and individuals returning to the community after rehabilitation. In addition to recognizing common activities across cultures, it is recommended for occupational therapists working in multicultural societies to embrace complexity and diversity in their practice (Humbert et al., 2011).

Longer blue bars from the radar charts and statistically higher levels of participation of the US sample from the t-test results were found. This may indicate that leisure and fitness/health related activities were more likely to be affected by cultural background, compared to instrumental activities or social activities. In particular, as older adults' lifestyles including leisure or fitness/health are developed over time through interactive influences such as the physical environment, social support, and their own health status, narrowing these gaps may be challenging within a short time, however, behavioral changes among older adults can be prompted by internal motivation (Belza et al., 2004). Developing infrastructure to support multicultural leisure and fitness/health activities is also suggested. Despite the Korean

government's efforts to safeguard the health of foreign immigrants, public medical services do not provide them with equal access compared to residents (Paek & Koh, 2022). To realize occupational justice, which aims at enabling individuals to participate in their meaningful activities and integrate into the community, community-level initiatives are more effective than changing medical settings (Agner, 2017).

In study 2, the ACS-3 was applied to investigate the changes in participation pattern across the lifespans of Korean adults. As the group aged, there was a tendency for a decrease in participation in leisure, fitness/health, social activities, while the change in participation of instrumental activities was minimal. The results suggest that promoting participation in leisure, fitness/health, and social activities may be needed as people age.

The decreased tendency in participation levels in older groups in the current study may be attributed to the process of selection and optimization as they adapt to later life (Baltes & Carstensen, 2003). For example, older adults may prioritize participating in activities they can manage, rather than persisting in activities that have become challenging due to decreased functioning or limited resources associated with aging (Baltes & Carstensen, 2003; Regier & Parmelee, 2021). In the same vein, activities that are kept in later life despite limited abilities or resources mean that the activities are very meaningful or critical for the participants (Regier & Parmelee, 2021). Group 3 and 4 showed a comparable level of participation in leisure and social domains. These results can be explained by Activity Theory, which suggested psychological and social needs of older adults remained the same as those in the middle-aged

period (Havighurst, 1968). Activity Theory emphasizes the importance of continuing to participate in roles within social contexts (Havighurst, 1968). The comparable level of participation observed between group 3 and group 4 may be attributed to the robust physical health and socioeconomic status of group 4. Both groups self-rated themselves as healthy enough to meet the inclusion criteria of this study. Additionally, both groups showed similar levels of education, and the retirement rate of group 4 was less than a quarter. Although it was slightly observed in group 4 in this study, physical and social health deterioration is a natural part of aging. To compensate for declining function in older adults adopting assistive technology can serve as a preventive approach, enabling them to continue participating in their daily lives (Zager Kocjan et al., 2023).

In the current study, for group 4 to gain the benefits of active participation, including successful aging (Kim et al., 2023; Sloane-Seale & Kops, 2008), life satisfaction (Heo & Lee, 2010) and emotional health (Bardhoshi et al., 2016), it is essential to suggest strategies to lower the barriers to participating in leisure, fitness/health, and social activities. Using assistive devices and supporting mobility including transportation can be helpful for older adults with functional declines in participation in leisure activities (Dahan-Oliel et al., 2010). Addressing poverty in later life is crucial, as it is a factor that widens participation level gaps in exercise and leisure (Park et al., 2010; Townsend, 2015). Providing community care services to promote health or leisure activities of older adults can be functional to overcome financial limitations. Also, tailored health promotion programs aimed at specific age groups, emphasizing the significance of active

participation, including social engagement, can be helpful (Park et al., 2010).

1. Limitations

The US and Korea samples included in this study had significant differences on age and gender, thus, the results should be interpreted with considerations of influences from age and gender differences between the two samples. In addition to age and gender, we would like to suggest considering other covariates such as health conditions that could influence participation for future studies. While the ACS-3 is suitable for measuring participation based on the retention of participating in activities, it does not account for the intensity or qualitative aspect of participation. Thus, future studies with assessment tools measuring various aspects of participation are required to increase generalizability of the findings of this study. Moreover, we collected the US data in 2022 closer to the end of the COVID-19 Pandemic, thus, this may have influenced the results of this study. However, since the US government lifted COVID-19 related restrictions earlier than Korea, we collected the data under few COVID-19 related restrictions.

V. Conclusion

The findings of this study may provide the common daily activities that can be used as therapeutic occupations across cultures in multicultural society. The results of this study suggest participation retention decreases as aging progresses. Considering that active participation in physical, leisure, and social activities

are important indicators of healthy aging, health professionals need to employ various approaches such as assistive devices, supporting transportation, addressing poverty, and age-specific education to optimize participation in daily life and well-being in older adults.

Conflicts of interest

No potential conflict of interest relevant to this article was reported.

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References

- Agner, J. (2017). Understanding and applying empowerment theory to promote occupational justice. *Journal of Occupational Science*, 24(3), 280-289. <https://doi.org/10.1080/14427591.2017.1338191>
- Baltes, M. M., & Carstensen, L. L. (2003). *The process of successful aging: Selection, optimization, and compensation*. In U. M. Staudinger, & U. Lindenberger (Eds.), *Understanding human development: Dialogues with lifespan psychology* (pp. 81-104). Springer. https://doi.org/10.1007/978-1-4615-0357-6_5
- Bardhoshi, G., Jordre, B. D., Schweinle, W. E., & Shervey,

- S. W. (2016). Understanding exercise practices and depression, anxiety, and stress in senior games athletes: A mixed-methods exploration. *Topics in Geriatric Rehabilitation, 32*(1), 63-71. <https://doi.org/10.1097/TGR.0000000000000092>
- Baum, C. M., & Edwards, D. F. (2008). *ACS: Activity Card Sort*. AOTA Press.
- Belza, B., Walwick, J., Schwartz, S., LoGerfo, J., Shiu-Thornton, S., & Taylor, M. (2004). Older adult perspectives on physical activity and exercise: Voices from multiple cultures. *Preventing Chronic Disease, 1*(4). A09.
- Bonder, B., & Anetzberger, G. J. (2018). *Culture, ethics, and elder abuse*. In B. Bonder, & V. D. Bello-Haas (Eds.), *Functional performance in older adults* (4th ed., pp. 75-90). McGraw-Hill Education. <https://fadavispt.mhmedical.com/content.aspx?bookid=2302§ionid=179706685>
- Boone, A. E., Wolf, T. J., & Baum, C. M. (2022). Development and initial testing of the electronic activity card sort (ACS3) among community-dwelling adults. *American Journal of Occupational Therapy, 76*(3), 7603345030. <https://doi.org/10.5014/ajot.2022.047522>
- Chan, V. W., Chung, J. C., & Packer, T. L. (2006). Validity and reliability of the Activity Card Sort—Hong Kong version. *OTJR: Occupation, Participation and Health, 26*(4), 152-158. <https://doi.org/10.1177/153944920602600405>
- Dahan-Oliel, N., Mazer, B., Gélinas, I., Dobbs, B., & Lefebvre, H. (2010). Transportation use in community-dwelling older adults: Association with participation and leisure activities. *Canadian Journal on Aging/La Revue Canadienne du Vieillessement, 29*(4), 491-502. <https://doi.org/10.1017/S0714980810000516>
- Doney, R. M., & Packer, T. L. (2008). Measuring changes in activity participation of older Australians: Validation of the Activity Card Sort-Australia. *Australasian Journal on Ageing, 27*(1), 33-37. <https://doi.org/10.1111/j.1741-6612.2007.00265.x>
- Eriksson, G. M., Chung, J. C., Beng, L. H., Hartman-Maeir, A., Yoo, E., Orellano, E. M., Van Nes, F., De Jonge, D., & Baum, C. M. (2011). Occupations of older adults: A cross cultural description. *OTJR: Occupation, Participation and Health, 31*(4), 182-192. <http://doi.org/10.3928/15394492-20110318-01>
- Farmer, N., Touchton-Leonard, K., & Ross, A. (2018). Psychosocial benefits of cooking interventions: A systematic review. *Health Education & Behavior, 45*(2), 167-180. <http://doi.org/10.1177/1090198117736352>
- Hasselkus, B. R. (2011). *The meaning of everyday occupation*. Slack Incorporated.
- Havighurst, R. J. (1968). Personality and patterns of aging. *Gerontologist, 8*(1_Part_2), 20-23. https://doi.org/10.1093/geront/8.1_Part_2.20
- Heo, J., Chun, S., Lee, S., Lee, K. H., & Kim, J. (2015). Internet use and well-being in older adults. *Cyberpsychology, Behavior, and Social Networking, 18*(5), 268-272. <https://doi.org/10.1089/cyber.2014.0549>
- Heo, J., & Lee, Y. (2010). Serious leisure, health perception, dispositional optimism, and life satisfaction among senior games participants. *Educational Gerontology, 36*(2), 112-126. <https://doi.org/10.1080/03601270903058523>
- Hocking, C. (2017). Occupational justice as social justice: The moral claim for inclusion. *Journal of Occupational Science, 24*(1), 29-42. <https://doi.org/10.1080/14427591.2017.1294016>
- Humbert, T. K., Burket, A., Deveney, R., & Kennedy, K. (2011). Occupational therapy practitioners' perspectives regarding international cross-cultural work. *Australian Occupational Therapy Journal, 58*(4), 300-309. <https://doi.org/10.1111/j.1440-1630.2010.00915.x>
- Jung, C. I., Kim, Y. S., Lee, H. W., & Kim, G. C. (2011). The effect of cooking and art activities on cognitive function and depression of dementia patients. *Journal of Korean Institute of Oriental Medical Diagnostics, 15*(1), 67-76.
- Kim, J. K., Kim, H. S., & Park, S. J. (2017). The effect of occupational participation on the quality of life and self-esteem of the elderly. *Journal of Occupational Therapy for the Aged and Dementia, 11*(1), 21-28.
- Kim, J. R., Park, S., & Lee, C. D. (2023). Relationship between resilience, community participation, and successful aging among older adults in South Korea: Mediating role of community participation. *Journal of Applied Gerontology, 48*(11), 2233-2241. <https://doi.org/10.1177/07334648231183772>
- Lee, S. H., Yoo, E. Y., Jung, M. Y., Park, S. H., Lee, J. S., & Lee, T. Y. (2010). Development of the Korean activity card sort. *Korean Journal of Occupational Therapy, 18*(3), 103-117. <https://db.koreascholar.com/>

- Levy, L. L. (2018). *Cognitive aging: Considerations for adults and older adults*. In N. Katz, & J. Tolia (Eds.), *Cognition, occupation, and participation across the lifespan: Neuroscience, neurorehabilitation and models of intervention in Occupational Therapy* (pp. 29-49). AOTA Press. <https://doi.org/10.7139/2017.978-1-56900-479-1>
- Muñoz, C. G. (2018). Challenges in occupational justice and social inclusion: Selected experiences within Valdivia's civil society. *Journal of Occupational Science*, 25(4), 486-496. <https://doi.org/10.1080/14427591.2018.1517404>
- Nedeljko, M., Bogataj, D., & Kaučič, B. M. (2021). The use of ICT in older adults strengthens their social network and reduces social isolation: Literature review and research agenda. *IFAC-PapersOnLine*, 54(13), 645-650. <https://doi.org/10.1016/j.ifacol.2021.10.524>
- Paek, Y., & Koh, M. (2022). Embracing migrants into the public medical system: The Involvement of migration infrastructure in South Korea. *Journal of the Korean Association of Regional Geographers*, 28(2), 183-199. <https://doi.org/10.26863/JKARG.2022.5.28.2.183>
- Park, S., Lee, H. J., Jeon, B. J., Yoo, E. Y., Kim, J. B., & Park, J. H. (2021). Effects of occupational balance on subjective health, quality of life, and health-related variables in community-dwelling older adults: A structural equation modeling approach. *Plos One*, 16(2), e0246887. <https://doi.org/10.1371/journal.pone.0246887>
- Park, M. J., Yeo, K. H., & Park, B. H. (2010). Influential factors related to health promotion behaviors among community dwelling elderly with low economic status. *Korean Journal of Gerontological Social Welfare*, 48, 205-227. <https://doi.org/10.21194/kjgsw..48.201006.205>
- Pechishcheva, L. A., & Korneev, K. A. (2023). Civilizational space of orient countries in the 21st century: Unique features and western influence. *World Economy and International Relations*, 67(9), 119-128. <https://doi.org/10.20542/0131-2227-2023-67-9-119-128>
- Pereira, R. B., & Whiteford, G. E. (2013). Understanding social inclusion as an international discourse: Implications for enabling participation. *British Journal of Occupational Therapy*, 76(2), 112-115. <https://doi.org/10.4276/030802213X13603244419392>
- Regier, N. G., & Parmelee, P. A. (2021). Selective optimization with compensation strategies utilized by older adults newly-transitioned to assisted living. *Aging & Mental Health*, 25(10), 1877-1886. <https://doi.org/10.1080/13607863.2020.1856776>
- Sachs, D., & Josman, N. (2003). The activity card sort: A factor analysis. *OTJR: Occupation, Participation and Health*, 23(4), 165-174. <https://doi.org/10.1177/153944920302300404>
- Sloane-Seale, A., & Kops, B. (2008). Older adults in lifelong learning: Participation and successful aging. *Canadian Journal of University Continuing Education*, 34(1), 37-62. <https://doi.org/10.21225/D5PC7R>
- Stevellink, S., & van Brakel, W. H. (2013). The cross-cultural equivalence of participation instruments: A systematic review. *Disability and Rehabilitation*, 35(15), 1256-1268. <https://doi.org/10.3109/09638288.2012.731132>
- Townsend, E. (2015). Critical occupational literacy: Thinking about occupational justice, ecological sustainability, and aging in everyday life. *Journal of Occupational Science*, 22(4), 389-402. <https://doi.org/10.1080/14427591.2015.1071691>
- World Health Organization. (2001). *International classification of functioning, disability, and health (ICF)*. <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>
- Zager Kocjan, G., Špes, T., Svetina, M., Plohl, N., Smrke, U., Mlakar, I., & Musil, B. (2023). Assistive digital technology to promote quality of life and independent living for older adults through improved self-regulation: A scoping review. *Behaviour & Information Technology*, 42(16), 2832-2851. <https://doi.org/10.1080/0144929X.2022.2149423>

미국성인과 한국성인의 공통적 일상활동과 한국인의 생애주기 변동에 따른 활동참여 변화

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목적 : 이 연구의 목적은 지역사회에 거주하는 미국인과 한국인이 참여하는 일상적 활동 중 공통된 활동을 도출하는 것과(연구 1) 생애주기 변동에 따라 한국인의 활동 참여 패턴의 변화를 분석하는 것이다(연구 2).

연구방법 : 온라인 조사를 통해 Activity Card Sort version 3 (ACS-3)를 미국인과 한국인에게 적용하였다. 연구 1에서는 100개 활동에 대한 참여수준의 평균을 분석하고 결과를 시각자료로 제시했다. 연구 2에서는 4개 연령집단의 참여수준의 평균이 ACS-3의 4개 도메인별로 어떻게 변화하는지를 분석하고 시각자료로 제시했다.

결과 : 연구 1에서는, 161건의 미국인 자료와 163건의 한국인 자료를 분석하였다. 100개 활동 중, 48개 활동(수단적 활동: 20개, 여가 활동: 13개, 건강 활동: 6개, 사회활동: 9개)에서 두 국가간 유사한 참여수준을 확인하였다. 연구 2에서는, 420건의 한국인 자료를 분석하였다. 나이가 들어감에 따라 모든 수단적 활동을 제외한 모든 도메인에서 참여수준이 저하되는 경향을 확인하였다.

결론 : 서로 다른 문화권에서도 공통적인 일상활동은 작업치료에서 문화의 제한을 받지 않는 치료적 수단으로 활용할 수 있다. 노인의 일상활동 참여를 최적화하기 위한 보호적 접근과 지지가 제안된다.

주제어 : 노화, 문화, 생애주기, 작업적정의, 활동참여