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Investigating the relationship between types of leisure activities and coping strategies among older Korean immigrants

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Abstract

Introduction: The purpose of this study was to investigate the relationship between different types of leisure activities (e.g., Leisure-Time Physical Activity (LTPA), Intellectual activity, and Community-based activity) and coping strategies (e.g., problem-solving, social support, avoidance) among older Korean immigrants.

Methods: This study collected survey data from older Korean immigrants (50 to 85 years old) living in Southern Californian cities in the United States (n = 51). We conducted a hierarchical regression analysis to investigate the relationship and the change of explained variances.

Results: We found that LTPA and intellectual leisure were significantly associated with the increased use of support-seeking strategies by older immigrants. Community-based leisure was positively associated with their problem-solving and avoidance strategies.

Discussion: The present study not only deepens the body of knowledge describing how particular leisure activities are associated with coping strategies but also provides practical implications for helping older immigrants cope with acculturation stress and life course challenges.

Take-home message: Our results indicated the value of those types of leisure activities to improve the coping skills of older immigrants, which can lead to better health and improved well-being. **Key words:** Older adults; coping strategies; Korean immigrants; types of leisure activities.

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INTRODUCTION

Asian immigrants to the United States often face challenging social and life changes during their exposure to a new culture [1-3], which increases stress levels that negatively affect their mental health [4]. Numerous studies have shown that acculturation stress has a negative effect on the mental health

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of immigrants [5,6] and that Asian immigrant populations have higher rates of mental disorders than US-born Asians and non-Hispanic Whites [7]. This prevalence of mental illness is much higher among older than younger immigrants [8]. According to the U.S. Census Bureau [9], the number of immigrants aged 60 and older is projected to grow to 22 million people or 23.3% of the total older population in the United States (U.S.) in 2040, rising from 7.5 million or 14.1% in 2020. Given their growing numbers and high risk of mental health challenges, there is a critical need to identify factors that have the potential to improve the mental well-being of older immigrants in the U.S.

Older immigrants and coping

Prior studies have highlighted the importance of improving mental health among older immigrants by helping them develop coping strategies [2,10,11]. Folkman et al. [12] defined coping as a "person's cognitive and behavioral efforts to manage (reduce, minimize, master, or tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or exceeding the person's resources" (p. 572). Amirkhan [13] developed the Coping Strategies Indicator (CSI), that is comprised of Problem Solving, Seeking Social Support, and Avoidance dimensions. While problem-focused coping refers to assertive coping in which a person acts autonomously to deal with stressful situations, social support coping draws on support from family, friends, and community members in such situations [14-16]. Avoidant coping strategies include denial, self-distraction, and compulsive behavior to deflect from conflicts [17]. Guo et al. [18], in an investigation of coping resources among older Chinese immigrants, found that having multiple coping strategies provides significantly stronger buffering effects on psychological well-being than having poor or limited coping strategies. Therefore, further research is warranted to identify potential factors that can facilitate the development of older immigrants' coping strategies.

Types of leisure activities among Korean immigrants

In prior studies, the benefit of leisure activities in improving the coping abilities of older immigrants has been studied [10,11,19], and the results of these studies support efforts to encourage leisure activities designed to help older immigrants gain psychological, emotional, and social benefits through reducing acculturation stress. In an examination of the effect of leisure on the cognitive functioning of older adults, Lee [2] reclassified Ragheb and Beard's [20] seven types of leisure activities into three types: leisure-time physical activities (LTPAs), leisure-time intellectual activities, and leisure-time community-based activities. In the study, LTPAs included outdoor and sports activities, intellectual leisure comprised indoor and cultural activities, such as reading and attending movies, and community-based leisure included social, volunteer, and civic activities (e.g., socializing, church attendance, and community service). A growing body of literature has found certain leisure activities' positive contribution to older immigrants' health.

Leisure-time Physical Activity as Coping

It is well-documented that leisure-time physical activity (LTPA), referring to any activity conducted for physical energy expenditure, reduces stress [21,22]. In particular, many studies have provided evidence that LPTA benefits older adults in terms of physical, social, and mental health [23-25]. Kim et al. [11] found that sports club (e.g., soccer, basketball) participation plays a vital role in helping Korean immigrants cope with acculturation stress and achieve leisure skills and personal goals, improving their psychological and emotional health. Further, Kim et al. [1, 26] identified the relationship between outdoor and sports activities and Korean belongingness, cultural identification, and community membership. These studies show that older Korean immigrants who had engaged in LTPA reported decreased stress levels associated with better health and well-being. *Intellectual leisure activity as coping*

Kropf et al. [27] reported that older Korean immigrants often use intellectual activities to cope with life stressors. For example, reading a book, singing a song, and watching television can rejuvenate individuals and help reinforce "Koreanness," enabling participants to deal with the stressful aspects of the acculturation process. Kim et al. [10,11] reported that hobbies, indoor, and cultural leisure activities (e.g., reading, watching T.V., playing musical instruments) might not only facilitate acculturative behavior but also improve the participant perceptions of the values derived

from accepting and embracing new cultural components of acculturation (e.g., belonging, self-control, success) [28,29] found that traditional Korean games and activities are meaningful to older Korean immigrants and are associated with improving psychosocial well-being, positive emotion, and social connection.

Community-based Leisure Activity as Coping

Kim and Iwasaki [10] found community-based leisure activities. Such as religious activities created a buffer effect that helped older Korean immigrants cope with difficulties in their lives, mental health challenges, and acculturational stress. Also, community involvement was conducive to building additional coping strategies among older Korean immigrants. Kim et al. [10,11] found that volunteering can help older Korean immigrants manage stressful situations and improve their mental health. Similarly, Kim et al. [1] reported that having opportunities to provide tutoring in their communities, such as teaching music and the Korean language to other immigrants, helped lower stress levels and improved psychological well-being.

In light of the literature reviewed above, coping strategies can significantly reduce acculturational stress and improve the mental health of older immigrants. It has also been found that certain leisure activities can provide other health benefits to older immigrants. Thus, it is important to understand the types of leisure activities that can help older immigrants cope with stressful events and, thus, experience increased quality of life and health. Previous studies have focused mainly on measuring the total amount of leisure involvement and its relationship to coping. Thus, little is known about the association of specific types of leisure activities with the coping strategies of older Korean immigrants. To address this research gap, we investigated this association that contributes to a deeper understanding of the coping strategies adopted by older Korean immigrants. The hypotheses of this study include:

- *Hypothesis 1:* Leisure-time physical activity is associated with the adoption of additional effective coping strategies.
- *Hypothesis* 2: Intellectual leisure activity is associated with the adoption of additional effective coping strategies.
- *Hypothesis 3:* Community-based leisure activity is associated with the adoption of additional effective coping strategies.

METHODS

Data collection

In this cross-sectional study, our research team used a convenience sampling strategy [30] to recruit research participants. We first contacted representatives of Korean churches and community centers in cities in metropolitan areas of California to obtain their cooperation via a letter and then in person. The recruiting advertisement for the study was posted on bulletin boards and announced by the representatives at the participating research sites. Both Korean and English versions of the survey were prepared to accommodate the language preferences of the participants, and paper copies of both were placed in designated spots that were conveniently accessible to potential participants. Research assistants explained the study's aims and provided support throughout the process of administering the survey, including the completion of the informed consent form and the survey questionnaire. The questionnaire took approximately 20 minutes to complete and was returned to the research assistant immediately, after which the collected surveys were stored in a secure area for three months. A total of 51 completed surveys constituted the data source for this study.

Study sample

Table 1 provides an overview of the characteristics of the research participants. Participant age ranged from 50 to 85 years, with an average age of 71 years. Female participants (70.6%) constituted a higher proportion than their male counterparts (29.4%). About two-thirds of the respondents were married (66.7%), 15.7% were divorced, 15.7% were widowed, and 1.9% had never married. The largest proportion in the education level is college graduates (64.7%), and graduate

school (17.6%) followed next. Approximately half of respondents rated their health status as normal (52.9%), followed by not good (27.5%) and very bad (2.0%).

Table 1. Demographic variables.

Characteristics	n	%
Age		
50 to 85 years old (SD = 6.93)	51	100
Sex		
Male	15	29.4
Female	36	70.6
Marital status		
Married	34	66.7
Divorced	8	15.7
Widowed	8	15.7
Never married	1	1.9
Education		
Middle school graduate	1	2.0
High school graduate	3	5.9
Some college	6	9.8
College graduate	33	64.7
Graduate study or degree	9	17.6
General health status		
Very bad	1	2.0
Not good	14	27.5
Normal	27	52.9
Good	3	5.9
Very good	6	11.8

Study measures

Independent variables

The Leisure Participation Involvement (LPI) scale developed by [20] was used to measure the frequency of leisure activity participation based on seven types of activities: (a) outdoor activities (e.g., walking, fishing, cycling), (b) sports activities (e.g., golf, dance, tennis), (c) indoor activities (e.g., painting, playing a musical instrument, reading), (d) cultural activities (e.g., watching T.V., playing computer games), (e) social activities (e.g., socializing with friends, eating out, traveling, spending time with family), time), (f) volunteer activities, and (g) civic activities (e.g., church attendance, community service activities). This scale has been widely used in leisure studies [10,31-33] to measure participation in these seven types of leisure activities.

In this study, we categorized the seven types of leisure activities into three broad types: leisure-time physical, intellectual, and community-based, referring to a recent leisure study of the relationship between leisure activities and the cognitive functioning of older adults during the COVID-19 pandemic [2]. Physical leisure time included outdoor and sports activities, intellectual leisure comprised indoor and cultural activities, and community-based leisure comprised social, volunteer, and civic activities. A seven-point Likert scale was used to assess leisure participation, from 1 (never) to 7 (very frequently).

Dependent variables

Amerkahn's [13] Coping Strategy Indicator (CSI) was employed to assess the coping strategies of the respondents. Based on a factor analysis, Amirkhan [13] identified three types of coping strategies that included seeking support, problem-solving, and avoidance and constructed a 33-item scale comprised of three subscales, each including 11 items, to broadly measure coping behavior in daily living using a 7-point Likert scale (1 = never, 7 = very strongly agree). For example, the seeking support subscale includes the item "sought reassurance from those who know you best," the problem-solving domain includes "tried to solve the problem," and the avoidance domain

includes "avoided being with people in general." In this study, we constructed three dependent variables: seeking support coping, problem-solving coping, and avoidance coping, based on three subscales of the CSI.

Data analysis

We conducted a hierarchical regression analysis to investigate the relationship between different types of leisure activities and coping strategies of older Korean immigrants. The hierarchical regression is an appropriate analytical tool to examine the changes in the explained variance (e.g., R², F for changes in R²) when the first block of variables and the second block of variables are put sequentially into the regression model.

Before the main analysis, we reviewed the descriptive statistics of the study variables and scale reliability. The independent variable was composed of two blocks. We put the age and sex variables in the first block and added the three types of coping strategies (seeking support, problem-solving, and avoidance) in the second block. All statistical analyses were conducted using the SPSS 26.0 package.

Ethical aspects

This study was approved by the Institute of Research Board (IRB) of Indiana University, and the requirements and guidelines of the IRB were strictly followed. Research assistants explained to participants the aims of the study. The survey questionnaire was administered in both Korean and English.

RESULTS

Descriptive statistics of the study variables are presented in Table 2. In this study, independent variables were organized by the three types of leisure activities: LTPA (M = 9.96, SD = 3.51), intellectual (M = 8.96, SD = 3.48), and community-based (M = 13.43, SD = 4.18). The three coping strategy types were the dependent variables. Seeking support coping (M = 47.1, SD = 12.6), problem-solving coping (M = 48.6, SD = 12.9), and avoidance coping (M = 47.9, SD = 12.5) all have satisfactory scale reliability and internal consistency (Cronbach's α = 0.88, Cronbach's α = 0.91, and Cronbach's α = 0.85 respectively).

Table 2. Descriptive statistics (n = 51).

Variables	Mean	SD	Cronbach's α
Independent Variables			
Leisure time physical activity	9.96	3.51	0.82
Intellectual leisure	8.96	3.48	0.80
Community-based leisure	13.43	4.18	0.94
Dependent Variables			
Seeking support coping (SC)	47.1	12.6	0.88
Problem-solving coping (P.S.)	48.6	12.9	0.91
Avoidance (A)	47.9	12.5	0.85

The correlation coefficient matrix (Table 3) indicates all variables' relationships. The coefficient values ranged from -0.091 to 0.710. There were no multicollinearity issues identified between study variables.

Table 3. Correlation coefficient matrix.

Variables	Age	Sex	LTPA	Intellectual	Community	SC	PS	A
Age	1							
Sex	09	1						
LTPA	01*	.22	1					
Intellectual	03	01	.30	1				
Community	.15*	.02*	.43	.61	1			
S.C.	.07	09	.38*	.54*	.52*	1		
P.S.	.09	05	.39*	.46	.59*	.61*	1	
A	.08*	09	.38	.47	.58*	.71*	.69*	1

Note: * p < .05

The result of the hierarchical regression of seeking support coping is shown in Table 4. Block 1 explained 1.3% of the variance in seeking support coping (F (2, 48) = 0.312, p = 0.13, R^2 = 0.013). Age was associated with decreasing seeking support coping (B = 2.37, t = 0.45, p = 0.65), and sex (B = -0.12, t = -0.59, p = 0.55) was associated with increasing seeking support coping, but both relationships were not significant. After entering the three types of leisure activities, block two explained 48.0% of additional variance in seeking support coping (F (5, 45) = 9.399, p = 0.00, R^2 = 0.493). Age and sex were still not significantly associated with increases or decreases in seeking support coping. Among the three types of leisure activities, LTPA (B = 0.74, t = 2.12 p = 0.02) and intellectual leisure (B = 1.25, t = 2.31, p = 0.00) were significantly related to increasing seeking support coping, but community-based leisure was not.

Table 4. Hierarchical regression analysis for seeking support.

Variables	Block 1				Bloc			
	В	Std Error	t	p	В	Std Error	t	P
Age	2.37	3.96	0.45	0.65	3.69	3.30	0.32	0.74
Sex	-0.12	0.26	-0.59	0.55	-0.07	0.22	-1.11	0.26
LTPA					0.74	0.48	2.12	0.02
Intellectual					1.25	0.54	2.31	0.00
Community					0.67	0.48	1.38	0.17
R^2	0.013				0.493			
F for changes in R ²	0.312				9.399*			

Note: * p < .05

For problem-solving coping (Table 5), block one in the regression model explained 1.0% of the variance in problem-solving coping (F (2, 48) = 0.236, p = 0.25, R^2 = 0.010). Increasing age (B = 1.26, t = 0.58, p = 0.56) was associated with decreasing problem-solving, and sex (B = -0.16, t = -0.31, p = 0.75) was associated with increasing problem-solving coping, but both relationships were not significant. After the three types of leisure activities were entered, block 2 gained 43.4% of additional explanation of the variance in the regression model (F (5, 45) = 9.791, p = 0.00, R^2 = 0.444). Age and sex were not significantly associated with problem-solving coping. A type of community-based leisure was significantly related to increased problem-solving (B = 1.29, t = 2.64, p = 0.00), but the other two types of leisure were not.

Table 5. Hierarchical regression analysis for problem-solving.

Variables	Block	1						
	В	Std Error	t	p	В	Std Error	t	P
Age	1.26	4.01	0.58	0.56	2.76	3.37	0.16	0.87
Sex	-0.16	0.27	-0.31	0.75	-0.04	0.22	-0.82	0.41
LTPA					0.72	0.49	1.47	0.14
Intellectual					0.56	0.55	1.02	0.31
Community					1.29	0.49	2.64	0.00
R^2	0.010				0.444			
F for changes in \mathbb{R}^2	0.236				9.791*			

Note: * *p*< .05

Table 6 provides the results for the regression model of avoidance coping. Block 1 explained 1.3% of the variance in the model (F (2, 48) = 0.323, p = 0.30, R^2 = 0.013). Age (B = 2.33, t = 0.48, p = 0.63) was not significantly associated with increasing avoidance coping, and female sex (B = - 0.13, t = -0.59, p = 0.55) was more related to increasing avoidance coping than male sex, but the difference was not significant. In block 2, the explanation of variance in the regression model was increased from 1.3% to 44.9% (F (5, 45) = 9.328, p = 0.01, R^2 = 0.449). Age and sex were not significantly related to avoidance coping. Community-based leisure was significantly associated with increased avoidance coping (B = 1.19, t = 2.49, p = 0.01), but LTPA and intellectual leisure were not.

Table 6. Hierarchical regression analysis for avoidance.

Variables	Block 1				Bloc	Block 2		
	В	Std Error	t	p	В	Std Error	t	P
Age	2.33	3.92	0.48	0.63	3.69	3.27	0.08	0.93
Sex	-0.13	0.26	-0.59	0.55	-0.02	0.22	-1.12	0.26
LTPA					0.66	0.47	1.38	0.17
Intellectual					0.61	0.54	1.14	0.26
Community					1.19	0.48	2.49	0.01
R^2	0.013				0.449			
F for changes in R ²	0.323				9.328*			

Note: * *p*< .05

DISCUSSION

This study investigated the association between types of leisure activities (LTPA, intellectual, community-based) and coping strategies (seeking support, problem-solving, avoidance) among older Korean immigrants. The findings show that LTPA and intellectual leisure were significantly associated with older immigrants' increased use of the seeking support strategy. Community-based leisure was positively associated with using both problem-solving and avoidance strategies. These results suggest that participation in leisure, such as outdoor and social activities, may help older immigrants acquire coping strategies to deal with stressors.

Many studies have confirmed that leisure engagement can facilitate the acquisition of coping strategies by older Korean immigrants [10,27,34,35]. Previous studies have identified specific beneficial effects of leisure activity on attenuating stress generated by acculturation-related challenges, language barriers, and discrimination [10,11]. Teoh and Rose [36] also suggested that social support plays a significant role in alleviating psychological problems such as depression, anxiety, attention deficits, social challenges, and low self-esteem. Consistent with these previous studies, we suggest that participating in LTPA can be an important preceding behavior for older immigrants to seek social support and effectively cope with life stressors. Our study has contributed to extending the existing knowledge base that describes the role of leisure activities in strengthening the coping resources of older immigrants with negative psychological states.

Our study also suggests that intellectual leisure (i.e., indoor and cultural activities) is related to older immigrants' active use of coping strategies. Participation in indoor and cultural leisure activities often helps older immigrants develop relationships with friends and family who can provide social support. In previous studies, reading books, watching T.V., and playing musical instruments with others increased support-seeking and coping skills [28,29]. For example, Kim et al. [28] suggested that Korean immigrants who participated in indoor and cultural activities were more likely to report higher levels of mental health (e.g., self-esteem, self-control) and buffers to cope with acculturation stress. Teoh and Rose [36] also suggested that high social support strongly predicts psychological well-being and reduces depression, anxiety, and social challenges. Consistent with these previous studies, our study highlights the importance of intellectual activity participation as an effective way for older immigrants to access coping resources related to social participation.

We found that community-based leisure was a significant predictor of building problem-solving and avoidance coping strategies. This finding corroborates previous studies that reported that community-based leisure activities, such as social and religious activities and volunteering, can create a buffer that helps older immigrants cope with stressful situations and support their mental health [10,11,26,28,29]. Problem-solving coping strategies were measured with several items, such as "When I was in trouble, I rearranged things so my problem could be solved" and "I turned my full attention to solving the problem." That is, older Korean immigrants who participated in community-based leisure (i.e., social, volunteer, and civic activities) were more likely to be able to focus on the problems they faced and actively resolve them. This finding highlights the importance of providing

opportunities for older immigrants to engage in community-based leisure activities in which they can develop problem-solving coping strategies.

As for promoting avoidance coping strategies, we again emphasize the importance of community-based leisure activities. As indicated above, prior studies have provided evidence that social, volunteer, and civic activities can facilitate effective avoidance coping among individuals across diverse populations [37,38]. For example, Kim and Iwasaki [10] found that Korean immigrants who frequently engaged in community-based activities (e.g., volunteering and religious activities) reported higher life satisfaction and self-esteem and lower acculturation stress. Avoidance coping strategies were measured by such items as "When I was in trouble, I buried myself in a hobby or sports activity to avoid the problem." Therefore, our results demonstrate that older immigrants are likely to find respite from stressful situations when they participate in social, volunteer, and civic activities. Further, we believe the current study extends the knowledge by showing that older Korean immigrants can use community-based leisure activities as avoidance coping strategies that provide space for renewal.

Based on the results of this study, we provide practical suggestions on ways to promote the use of coping strategies among older Korean immigrants. Given the positive contribution of leisure participation to coping found in the current study, it is essential to offer various community-based recreation programs and social events as contexts that support the active and successful management of stressors in the lives of older immigrants. To promote LTPA among older immigrants, leisure professionals in the public sector should develop and implement physical activity programs, such as community-based exercise programs. To increase their use of social support-seeking coping strategies, it is important to provide a variety of intellectual leisure activities such as attending movies and concerts, visiting museums, and playing computer games in social groups. To facilitate problem-solving and avoidance coping strategies, practitioners should arrange opportunities for older immigrants to engage in community social events and volunteer activities. In addition to providing recreational programs, prior studies suggest that an awareness of public leisure resources plays a critical role in shaping leisure behaviors [39,40]. Therefore, public leisure agencies should also focus on increasing public awareness of community programs and events through effective marketing strategies and campaigns.

There are limitations inherent to the present study that should be addressed. Firstly, this study has shortfalls regarding the generalizability of its results to other populations in different environments, even though the sample size (n=51) statistically satisfies the central limit theorem for conducting analysis. Future studies with larger sample sizes will provide an opportunity to compare the relationship between types of leisure activities and coping strategies before and after the COVID-19 pandemic. Second, the study implemented a cross-sectional analysis based on a secondary data set that lacked the information required to examine leisure behavior and coping strategies in a time series. While the present study found relationships between types of leisure activities and specific coping strategies, it was not able to explain how different types of leisure activity might contribute to building coping strategies beyond the given year of the data set. Future longitudinal studies could help verify potential causal relationships between types of leisure activities and coping strategies at multiple time points. Moreover, it should be noted that potential confounders in the regression models might have affected the results of our study. Demographical information such as economic status, occupation, and acculturational levels could influence the study results. Thus, we recommend adding additional control variables to block unintended noise in the analysis. The acculturational level, in particular, might be a potential confounder in immigrant studies.

In conclusion, this study examined the relationship between different types of leisure activities and coping strategies for older Korean immigrants. Our results show that each type of leisure activity was associated with using particular coping strategies by older immigrants. LTPA and intellectual leisure were associated with increased use of the seeking support strategy. Community-based leisure was related to increased use of both problem-solving and avoidance strategies. Based on the results, we suggest increased use of these types of leisure activities to improve

the coping skills of older immigrants. Further, we believe that the present study deepens the body of knowledge on how particular leisure activities are associated with coping strategies and provides practical implications for helping older immigrants cope with upcoming acculturational stress and life course difficulties. By addressing the limitations of this study, future researchers could further examine potential factors that might promote successful coping among older immigrants.

CONCLUSION

Korean immigrants in the United States encounter challenging acculturational stress and related life course difficulties, resulting in reduced mental health. Public health scholars have suggested various leisure activities as a coping strategy. Still, there has been a research gap regarding which types of leisure activities contribute to developing specific coping skills. This study found that both LTPA and intellectual leisure were significantly associated with the increased use of support-seeking strategies by older immigrants. Community-based leisure was positively associated with their problem-solving and avoidance strategies.

These results might be instructive in designing and implementing healthcare programs for this population. Healthcare providers should choose the necessary leisure activities to meet clients' specific goals. For example, the providers would design a care program with camping, fishing, and jogging for clients pursuing the use of support-seeking coping strategies. Also, for clients who need additional problem-solving or avoidance coping skills, practitioners might suggest attending a religious gathering, volunteering, or doing charity work.

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