노령층의 온라인 커뮤니티 이용이 사회화와 사회적 고립감에 미치는 직·간접 효과☆

Direct and Indirect Effects of Older Adults' Use of Online Communities on Socialization and Social Isolation

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요 약

본 연구는 노령층의 온라인 커뮤니티 이용과 사회화 그리고 사회적 고립감 사이의 잠재적 관계에 대해 탐색해 보고자 했다. 위계적 회귀분석의 분석결과에 따르면, 온라인 커뮤니티 회원으로 구성된 개인적 네트워크의 크기와 질은 사회화에 긍정적인 영향을 미쳤으며 사회적 고립감 또한 저하시켰다. 그러나 온라인 커뮤니티의 회원들과의 오프라인 미팅의 유의미한 효과는 발견되지 않았다. 이에 더해, 온라인 커뮤니티를 이용하는 시간은 사회화로 매개되어 사회적 고립감에 유의미한 영향을 미쳤다. 이러한 연구결과는 제한된 사회적 관계로 인해 발생할 수 있는 심리적 문제들을 극복하는데 있어서 온라인 커뮤니티의 이용이 긍정적인 역할을 할 수 있음을 시사한다.

☞ 주제어 : 노령층, 온라인 커뮤니티 이용, 사회화, 사회적 고립감

ABSTRACT

This study explored the potential associations among older adults' online community uses, socialization, and social isolation. Results from the hierarchical regression analysis indicated that the quality and size of personal networks composed of online community members positively influences older adults' socialization and reduces social isolation. However, the frequency of meeting with online community members in offline settings was not significantly associated with socialization. Moreover, the amount of time using online communities indirectly and significantly affected social isolation, mediated by socialization. Results from this study address the positive roles of online community uses in overcoming psychological difficulties among elderly people.

☞ keyword : Older Adults, Online Community Use, Socialization, Social Isolation

1. INTRODUCTION

Although life expectancy is continuing to increase, older populations are experiencing increasing risk of social isolation due to later life events such as retirement, separation by death, cronehood, and so on. Elderly people's perceptions of being socially isolated lead to numerous types of mental illnesses such as depression [1]. Therefore,

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scholars and practitioners have paid major attention to the efficiency of the Internet in creating virtual interactions among older users, which can lead to increases in socialization and ultimately the reduction of social isolation. Regarding this, it needs to be considered that older adults are involved in online activities for the purposes of interacting with others, gaining social support, and finally overcoming serious mental problems such as loneliness and depression [2, 3].

Among various online activities, older adults' participation in online communities has received considerable attention from scholars and practitioners [4-6]. This could be because, unlike social networking services (SNSs) that largely depend on existing personal relationships, the main functions of online communities are to facilitate virtual interactions with a wider

range of people including both existing acquaintances as well as totally new people met online. This means that online community use plays a positive role in improving older adults' socialization with others, ultimately giving them more opportunities to reduce social isolation. Therefore, considering that social isolation has been known as one of the most serious causes of mental illnesses among older adults [7-9], it is necessary to further examine the positive role of online community uses for overcoming social isolation. Nevertheless, little research has examined an integrated model linking online community use, socialization, and social isolation to one another.

Therefore, this present study aimed at exploring a model indicating the mediating effect of socialization on the relationship between online community uses and social isolation among older adults in Korea. This particular country is ideal for studying older adults' online activities as Korea is well known as one of the most highly connected countries in the world with an Internet access rate of 99.9 percent in 2015 [10]. The following section will discuss the issue of social isolation among the elderly and further elaborate the relationship between online community use and socialization.

2. THEORETICAL BACKGROUND

2.1. ONLINE COMMUNITY USES AND SOCIALIZATION AMONG OLDER AUDLTS

With rapid increase in the uses of various social networking services (SNSs) (e.g., Facebook, Instagram, Snapchat, and so forth), online community use has gradually decreased. However, online communities are still significantly used as a media platform that complements people's SNS uses [11]. Interestingly, in spite of this general decease in online community use, there has been a gradual increase in online community use among the older populations. According to Statistics Korea, the rate of online community use among people 60 years or older was approximately 4.5% in 2013 and increased to 6% in 2015.

Regarding this, it should be considered that one of the main strengths of online communities is the relatively high

convenience of entry [11]. In the case of SNSs, users mainly wish to extend their offline relationships to cyberspaces, implying the enforcement of their own personal network. Therefore, it is quite difficult to newly join others' personal networks, even though those people may share common interests. On the other hand, except for exclusive online communities, it is relatively much easier to join a new online community and build new personal relationships with the community members that share similar interests. In other words, compared to other dominant information communication technologies (ICTs) of this contemporary society, online communities provide older populations with unique advantages in building wider social networks. Thus, unlike SNSs that are more helpful for strengthening people's existing networks, online communities, especially targeted for older adults, give those people more opportunities to interact with others who share similar concerns [4]. Through such interactions with diverse groups of people, there is a potential for expanding the resources needed for gaining social support [4-6].

In regards to older adults' use of online communities, previous research has found much evidence supporting the significant roles that participation in online communities play in the accumulation of social support or social capital of the elderly, ultimately implying its positive effect on perceived socialization [3-11]. For example, Pfeil et al. analyzed older adults' experience of online social support obtained through their participation in online communities [8]. In addition, Wagner et al. also observed that the most common use of the Internet for older adults were communication and social support [9]. In this way, it is reasonable to argue the potential positive association between online community uses and socialization among older adults.

Furthermore, to more thoroughly comprehend the relationship between online community uses and socialization, it should be considered that online community members often have many opportunities to have offline meetings (e.g., regular get-togethers) and establish strong ties with one another [11]. This implies that online community uses among older adults would further strengthen their socialization with others through online and offline interactions. Consequently, in order to scrutinize the roles of

online community uses for improving older adults' socialization, it is necessary to delve further into community members' online and offline relationships with one another. Finally, this present research focused on not only the quantitative (e.g., time spent using online communities) but also the qualitative aspects of use (e.g., companionship with online community users) in order to scrutinize the detailed roles of online community uses in older adults' socialization. Based on the previous studies' main findings, the following hypothesis was established and tested.

H1: Multiple aspects of online community uses among older adults will be positively associated with socialization.

2.2. SOCIAL ISOLATION AMONG OLDER ADULTS

Older populations are often exposed to diverse types of physical, psychological and social weaknesses. They are naturally losing physical power over time, and this weakened power limits their social interactions. Particularly, after retiring, the elderly begin to experience a notable decrease in social interactions and narrowing social network. Such considerably downscaled social network is likely to make one feel isolated [11-15]. The potential problems from social isolation are reduced resources for social support, psychological difficulties including sadness, depression, and even suicide [16, 17]. Furthermore, because of the extreme atomization of familial structures, we are observing a continuous increase in senior citizens who live alone. These people are exposed to more serious problems created from social isolation mainly because of the absence of caregivers [18].

In this way, social isolation is one of the most fundamental and crucial problems the elderly face. Therefore, scholars, practitioners, and policy-makers have placed much effort in finding and implementing effective strategies to facilitate the social interactions of the elderly so that they may overcome social isolation. To reduce social isolation, the Korean government provides the elderly with many opportunities to receive various types of education (e.g., computer skills, media production, dancing, etc.) at

public facilities such as community centers [19]. Older adults can meet and socialize with other people their age by participating in such educational programs. For instance, Yoon et al.'s study found that IT education for the elderly was helpful for improving both bonding and bridging social capital, which is created through social relationships [19]. Therefore, governmental institutions, social organizations, and local communities are taking increasing efforts to developing more diverse programs targeted for this population.

In spite of the effectiveness of such programs, a considerable limitation of those programs is the exclusion of older adults with limited physical activity. Older adults are often suffering from diverse types of disabilities, implying the significant reduction of physical movements [20]. Therefore, those older adults who have movement or mobility impairments are easily excluded from such useful programs, especially if they live in remote areas that do not offer such socialization opportunities. Therefore, online social interactions among the elderly have become a realistic and universal alternative for improving older adults' socialization and ultimately overcoming social isolation [4, 7].

Moreover, as addressed above, previous research has shown the significant association between online community uses and socialization among elderly populations. This implies the potential roles of socialization for mediating online community uses and social isolation among older adults. Therefore, considering the relationships among online community uses, socialization, and social isolation, the following two hypotheses could be established and tested.

H2: Older adults' socialization will be negatively associated with social isolation.

H3: Older adults' socialization will mediate the relationship between their use of online communities and socialization.

3. METHODS

3.1 PARTICIPANTS AND PROCEDURE

In order to test the proposed hypotheses, this study collected data from older adults in South Korea through a

paper-pencil survey distributed by a research company. This particular research company manages the largest panel pool in Korea. Based on a purposeful sampling method, the surveys were distributed to potential participants who were older than 60 years old and were currently using online communities including online clubs and online cafes. A total of 178 completed surveys were obtained. The average age was 63.9 years (SD = 3.7). There were more male (55.5%) than female participants (45.5%). Most participants (94%) had some type of cohabitee. More participants had educational levels of high school or lower (54.9%). The median monthly income of the participants was $2,000 - $3,000.

3.2 MEASUREMENTS

As elaborated above, online community users are likely to strengthen their personal relationships by having active interactions with other members and even to expand personal relationships with other members to offline ones through regular get-together. Thus, this study paid attention to the quantitative and qualitative aspects of online and offline interactions among older adults. Specifically, the following four aspects in in regards to online community uses were measured. First, the participants were asked to report the amount of time they spent daily using online communities (1=*less than 30 minutes*, 2=*30 minutes ~ 1 hour*, 3=*1~2 hours*, 4=*2~4 hours*, 5=*more than 4 hours*) (*M*=1.74, *SD*=.88).

Second, to understand the depth of online friendships, participants were asked to report the extent to which they agreed to the following item, "I can open my heart to the members of online communities in which I am now participating." (1=*Strongly disagree*, 5=*Strongly agree*) (*M*=2.60, *SD*=1.08)

Next, considering the link between online and offline interactions, the following two questions were given: 1) How often have you participated in offline meetings with members of online communities? (1=*Never participated*, 2=*Participated from time to time*, 3=*Participated regularly*) (*M*=1.67, *SD*=.71), 2) How many members of online communities are you meeting with? (1=*No none*, 2=*1-10 members*, 3=*10-20 members*, 4=*20-30 members*, 5=*more*

than 30 members) (*M*=1.87, *SD*=.94).

To measure socialization, paying more attention to personal interactions as the main aspect of socialization, we adapted the sub-scale about co-workers' support from Organizational Socialization Inventory (OSI) proposed by Taormina. [19] Specifically, four items were used to measure older adults' perception of socialization with others. Examples of those items are: a) I am good at building new personal relationships; b) I consider my friends as family members. The reliability score for this measurement was acceptable (*M* = 3.53, *SD* = 0.54, = .78).

In order to measure social isolation, we used five items proposed by previous research [5,21]. The following are examples of the items used: a) I feel isolated from other people; b) I feel that I am not committed to any social groups. The reliability for this measurement (*M* = 2.10, *SD* = 0.74) was acceptable (= .91).

For the purpose of detecting more valid and reliable relationships among the main study variables, we included the following control variables in the analyses: age, gender (dummy coded), educational level, monthly family income, Internet use ability, status of having cohabitees (dummy coded). These variables have been found to have meaningful associations with either Internet use or social isolation.

(Table 1) Correlations among Study Variables

		1	2	3	4	5
1	Time using online communities	1				
2	Companionship with online community members	.29***	1			
3	Frequency of participating in offline meetings	.20**	.46***	1		
4	Number of members met offline	.37***	0.41***	.59***	1	
5	Perceived socialization	-.03	.31***	.12***	.22**	1
6	Social isolation	.06	-.40***	-.20**	-.22**	-.57***

Note: **p<.01, ***p<.001

4. RESULTS

To test those hypotheses, we conducted a hierarchical regression analysis. After controlling for the effects of those control variables, except the frequency of participating in offline meetings with online community members (= -.09, p = .17), all other variables were significantly associated with socialization. Specifically, while the depth of companionship with online community members (= .15, p < .001) and the number of members met offline (= .11, p = .03) were positively and significantly associated with socialization, the amount of time using online communities negatively and significantly influenced socialization (= -.12, p = .009). This implies that H1 was partially supported. By including these four variables in the regression model, the explained variance of socialization was significantly increased by 11 percent. (R^2 = .11, $F(4,167)$ = 6.16, p < .001).

(Table 2) Results from Hierarchical Regression Analysis (DV: Socialization)

Predictor variables	Block 1	Block 2	R^2	R^2
Age	.29*			
Gender	-.03			
Education level	.03			
Monthly family income	.06†			
Internet use ability	.48*			
Status of having cohabitees	.05		.11	
Time using online communities		-.12**		
Companionship with online community members		.16***		
Frequency of participating in offline meetings		-.09		
Number of members met offline		.11*	.23	.12***

Note. † p < .10, ** p < 0.01, *** p < 0.001

Next, in regards to H2, after controlling for the effects of the six control variables, socialization was significantly and negatively associated with social isolation (= -.80, p < .001). This result fully supported H2. By adding socialization into the regression model, 30 percent of explained variance of social isolation significantly increased (R^2 = .30, $F(1,170)$ = 77.3, p < .001).

(Table 3) Results from Hierarchical Regression Analysis (DV: Social Isolation)

Predictor variables	Block 1	Block 2	R^2	R^2
Age	-.07			
Gender	.19			
Education level	.08			
Monthly family income	-.10*			
Internet use ability	-.002			
Status of having cohabitees	.03		.05	
Socialization		.81***	.35	.30***

Note. † p < .10, ** p < 0.01, *** p < 0.001

Lastly, to examine the mediating effects of socialization on the relationship between older adults' use of online communities and social isolation, we conducted Sobel's tests for each of the four variables in regards to online community use. Except for the frequency of participating in offline meetings with online community members, (Sobel's statistics = 1.37, p = 0.17), all other variables' effects on social isolation were significantly mediated by socialization: depth of companionship with online community members (Sobel's statistics = -3.38, p < 0.001), number of members met offline (Sobel's statistics = -2.13, p = 0.03), and amount of time spent using online communities negatively and significantly influenced the relationship between socialization and social isolation (Sobel's statistics = 2.54, p = 0.01). This implies that H3 was partially supported.

5. DISCUSSION

The present study aimed to examine the relationships among older adults' online community uses, perceived socialization, and social isolation. Particularly, the mediating effect of perceived socialization was further examined. The results from hierarchical regression analyses provided multiple considerable findings regarding the proposed hypotheses, indicating the following theoretically and practically meaningful points. As those results show, when older adults have better online relationships with people met through online communities, they can have more opportunities to

experience higher perceived socialization and, in the end, reduce social isolation. In addition, older adults, who built social networks of larger size composed of people who gathered together through both online and offline meetings, also had more opportunities to experience higher levels of perceived socialization. This implies that the size and quality and of online networks created through online communities matter. This may be mainly because these two aspects of online communities can be considered as better resources which will lead older adults to expect more opportunities to become socialized with others.

However, like the study findings indicate, neither offline meetings with members of online communities nor commitment to online communities were significantly useful for improving perceived socialization. First, as previous research has found, because people have limited resources such as time, money, and energy, they often have to choose a particular medium over another, replacing existing media with the newly chosen one [22]. In the case of older adults, because they have more limited resources, they are more likely to select a smaller number of media rather than using a greater number of media. Therefore, older adults who spend more time on activities through online media may sacrifice opportunities to have face-to-face interactions through offline meetings which may be a more realistic means of obtaining socialization.

Next, it is interesting to observe that the frequency of meeting online friends in offline settings was not helpful for increasing perceived socialization. It might have been some negative violation of expectation about online friends in real settings. Previous studies have often argued about the potential gaps between online and offline identities mainly because of differences found in online and offline self-disclosure [23, 24]. Indeed, it is not uncommon to observe people revealing quite different communication patterns and personalities in the real world compared to what they show in the virtual world. This implies the co-existence of negative and positive violation of meetings with online friends in real settings, mainly because of such gaps between online and offline identities and personalities. Therefore, such co-existence of positive and negative violation of expectation about online friends might have offset significant effects of offline meetings with online friends on

socialization. All of these findings address the necessity to consider the danger of blind faith in the positive effects of older adults' use of online communities. Particularly, governments of highly wired and aging countries such as the US, Japan, and Korea need to exert more efforts in developing policies that can lead older adults to balance their online community activities rather than solely encouraging them to actively participate.

Despite meaningful findings of this present study, the following points should be considered for future research. First, although this study focused on an important personal outcome for older adults, future studies should further extend the findings to other crucial outcomes, such as psychological well-being, that can be significantly associated with socialization. Next, it is also recommended to more thoroughly analyze older adults' use of other types of new media for social contact (e.g., communication apps) in order to detect the true effects of online community uses on socialization. This is because people's socializing activities are often intermingled with both online and offline interactions. Lastly, future research needs to focus on more macro-level factors that may significantly influence older adults' online activities including online community uses. In other words, considerable changes in older adults' online activities are led not only by personal factors (e.g., interests in new media, personality traits and experiences) but also by environmental and social factors (e.g., improvement in telecommunication infrastructures, cultures of media use). Therefore, in order to more thoroughly scrutinize older adults' online community uses in personal aspects, future research needs to consider the influences of more macro-level factors on those online activities.

6. CONCLUSION

This study explored the potential links among older adults' online community uses, perceived socialization, and social isolation. Results from the analysis of quantitative data drawn from Korean older adults indicated that the size and quality of personal networks composed of online community members were positively associated with older adults' perceived socialization, which led to the reduction of social isolation. However, unlike the original prediction,

frequency of meeting with online community members in offline settings was not helpful for improving perceived socialization. Moreover, the amount of time spent using online communities negatively and significantly affected perceived socialization. These findings address the necessity to consider the limited roles of older adults' use of online communities and to take precautions against the potential negative effects of such online activities on the elderly populations' lives. In addition, most variables' effects on social isolation were significantly mediated by perceived socialization among Korean elderly people.

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