SENIORS' SOCIAL NETWORKS, MEDIA USE, AND SUBJECTIVE HEALTH

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Abstract: With the Korean population is aging at an unprecedented rate, the seniors' roles and metal health in society is becoming an increasingly important issue. Solving public health problems associated with old age is particularly salient in this country. As the media use and social networks of older adults is related to their social participation and well-being, investigating the media use patterns of older adults and their relationship to self-rated health and depression levels is important for establishing and researching public health policies. The aims of this study were to identify media use patterns and social network sizes (diverse, family, congregant, congregant-restricted, and restricted) among older adults in South Korea and to examine the relationship of these social networks and the media use patterns with self-rated health levels. Data from the 2016 national survey of Korean Media Foundation were analyzed. Hierarchical Multi-variate regression analyses were conducted to examine associations among the identified social network sizes, social media use and self-rated health levels. The analyses revealed that the larger social networks sizes showed the less levels of depressed and higher health rate. The social media use rate was positively associated with more favorable subjective mental health beyond the influence of health variable in seniors who has the small sizes of social networks. In summary, we discussed comprehensive social media use policies for older Korean adults.

Index Terms: Health, Seniors, Social Media, Social Networks.

I. INTRODUCTION

Social networks (or social ties) mean connect people with others and the community. Everyone has different levels of social ties. Some have more diverse and active social relationships while others have relatively restricted relationships (e.g. family vs. friends) (Fiori, Antonucci, & Akiyama, 2008; Li & Zhang, 2015). Many researches have argued that the chronic deprivation of social ties has negatively related with the consequences like as harmful health outcomes, lowered quality of life (Hawkley & Cacioppo, 2010), and considered social isolation as a major public health threat (Hawkley & Cacioppo, 2010). While some who are socially connected are more likely to have better health and higher mental well-being than those who are the socially disengaged (Winstead, Yost, Cotten, Berkowsky, & Anderson, 2014). The social networks of people have associated with not only network composition (e.g. family vs. friends / weak vs. strong ties) but also the degree of sizes of connectedness (e.g. small vs. large) (Cornwell, Schumm, Laumann, & Graber, 2009; Granovetter, 1983).

The development of communications technologies extends the lives of people (Klinenberg, 2012b). With the proliferation of seniors in Korea, social networks formation of elderly persons has associated with the characteristics of interactive vice versa passive media outlets (such as the characteristics of traditional media or social media setting). The traditional media-based usage of news information, such as newspaper broadcasting, magazine, and radio, is premised on passive users, and these media behaviors are easily considered as reinforcing the strength of the isolated lives of seniors. While, with the development of the Internet and social media technologies, seniors can easily communicate with others and form a virtual community (relationships) as they live with the media rather than live alone. In other words, even seniors who lives with small sizes of off-line social relationships might communicate with friends and strangers at any time via online so that they may maintain different levels of health rates. The possible assumption is that the seniors' life is associated with others not only in personal but also nonpersonal form, the media. Thus, identifying the effects of sizes of social networks and media use patterns on subjective health among seniors is significant because this work systematically highlights the role of the media required for the seniors who are living alone or in small networks in ageing society environment.

II. METHODS

A. Participants

In order to achieve the purpose of this research, we conducted an analysis based on the answers to the 2016 survey by the Korea Media Promotion Foundation (2nd Data). The Korea Media Development Foundation conducts a survey of people aged 19 or older across the country according to the status of resident registration population in 17 metropolitan cities each year (after allocating square root and extracting the stratified probability system). According to the Korea Media Foundation's (KOFIC) detailed sampling procedure, 17 out of the total population (based on the current status of the

population registration in Ulsan, 4 out of the cities across the city), and 1 sample count is allocated. The survey data for the media inmates included in this analysis included 5,128 answers collected in 2016. This analysis was carried out, on 510 data, by dividing the seniors' members into age under 65 and over 65 groups.

B. Mesures

2.2.1. Subjective health

Background characteristics included age (in years), gender (male was the reference group), and education (less than high school was the reference group). Objective health was assessed based upon the number of diseases diagnosed by general practitioners from a list of seven chronic diseases: hypertension, diabetes, cancer, stroke, lung disease, heart disease, and arthritis (Crimmins et al., 2011). Depression was assessed using the 20-item Center for Epidemiologic Studies Depression Scale (CES-D). The CES-D rates the frequency of symptoms of depression during the previous week on a four-point scale, from 0 (rarely or none of the time) to 3 (most or all of the time). The total score of all 20 items defines an individual's level of depression. The CES-D has been translated into the Korean language, and the psychometric properties of the Korean version have been validated. The Short Form Health Survey was used to assess self-rated physical and mental health (Montazeri et al., 2009). Respondents rated themselves on each of the survey's 12 items on a five-point scale: 1 (poor), 2 (somewhat poor), 3 (good), 4 (very good), and 5 (excellent) (Youm et al., 2014). Responses were used to derive two summary scores: the physical component summary and the mental component summary. Higher scores indicate better physical and mental health.

2.2.2. Social network variables

The construct of social network types was measured with ten criterion variables based on other network studies (Fiori et al., 2006). Some items were identical to those in previous studies, including current marital status, number of children, number of close relatives, number of friends, and participation in religious activities. Current marital status was coded dichotomously: 1 (married or living with a partner) or 0 (other). The number of living children was obtained through a simple count (0–9). The number of close relatives and the number of friends were summarized using six-point scales: 0 (none), 1 (one), 2 (two to three), 3 (four to nine), 4 (10–20), or 5 (more than 20). Frequency of attendance at religious services was measured on a six-point scale ranging from 0 (never) to 5 (three to four times per week or more). Attendance at organized group meetings was assessed by showing participants cards that outlined one of six different categories of activities (e.g., senior citizens association, social club, hobby group). Instead of the measure of neighborhood contact used in previous studies, we used Likert scale from extremely small to large size of social networks they have maintained in a month.

2.2.3. Media use variables

The use of news media was largely divided into two categories and reflected in the analysis. One is the mass media and other is social media. The assumption of mass is passive audience characteristics, considering people are isolated and scattered while social media assume people are media users, creators, and communicators. Social media types are related with conversational sites such as Facebook, Blogs, Kakaotalk, etc., while traditional or mass media include newspapers, TV, radio, and magazines. Measurement of the specific amount of news media used is the total amount of news media used over the past week, such as social media (ie., Kakaotalk) and mass media (TV, radio, etc.).

III. RESULTS

The present study's purposes aim to investigate the associations among the demographic characteristics of seniors (sex, age, education, income, metropolitan housing), subjective health and depression level, social networks (size, intensity), and the level of traditional and social media use variables. Considering the demographic attributions of the seniors, this study conducted hierarchical regression analyses with 510 survey data (male = 242, female = 268) in 2016, and presented the results in the table of the average age 70.54 (SD = 5.131).

Table 1. Impact of media use and social networks on subjective health

Variables	Model 1		Model 2		Model 3	
	β	t-value	β	t-value	β	t-value
Male	-.206	-3.960***	-.185	-3.531***	-.154	-2.987**
Age	.031	.248	.037	.306	.080	.666
Education	-.211	-1.690	-.168	-1.345	-.193	-1.585
Income	.052	1.033	.048	.953	.065	1.329
Social Networks			.127	2.365*	.128	2.442*
Social media use					.223	4.361***
Sum of R^2	.127(12.534)***		.140(11.279)***		.186(13.059)***	
R^2 change			.014(5.592)*		.045(19.014)***	

Data from the table 1 (Hierarchical Multi-variate regression analyses) showed that the larger social networks sizes showed the less levels of depressed and higher subjective health rate. The social media use rate was positively associated with more favorable subjective mental health beyond the seniors who has the small sizes of social networks.

CONCLUSIONS AND DISCUSSION

Results show that the associations with impoverished social networks and social media use effects should recognize as very distinct differences in the subjective health levels. Some older Koreans who are virtually engaged but socially disengaged offline community may know how to invigorate their online presence and existing relationships, whereas those who are structurally disengaged may need to focus on developing their social networks in personal. Even though the present study's data did not suggest in-depth examination, it is possible that many of those in the structurally disengaged older people can maintain or supplement their feeling of presence with others via online platforms.

One intervention therefore might be to facilitate online conversations at local community levels (ie., senior clubs) and other heterogeneous community groups, which may promote the connected feeling of the seniors with the social world.

With rapid change in family structure and ageing society, South Korea has experienced increasing rates of older couple-only or older adult living alone households in recent years. Such societal Fluctuations may have engendered older adults to expand strong, week ties, or friends-related networks. To developing for senior related policies in Korean society, the efforts should be made to develop aging friendly communities and media landscape such as creating opportunities for online participation, dialogues, communications in volunteering and social activities and work involvement which programs, also, should focus on promoting for seniors to socially engage with community on and offline channels.

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