

Letter to the Editor: More Practical Tools for Social Network Assessment are Needed

I read the paper by Youm and Sung¹⁾, “Self-rated Health and Global Network Position: Results from the Older Adult Population of a Korean Rural Village” and I would like to express my opinion about this paper. This study has obvious academic value in that it conducted a full network investigation based on a complete survey of elderly residents in a specific area. Furthermore, the author is making an original contribution by claiming that a social network must be measured by its relative position from the perspective of the entire village rather than the perspective of respondents. I am pleased that this paper was published in *Annals of Geriatric Medicine and Research*, which is a leading journal representing Korean geriatrics.

The importance of social networks on the health of the elderly has been emphasized continually for the last 3 decades²⁾. According to meta-analysis, the odds ratio of having a social network is 1.5, which means the mortality risk of people who have a strong social network is lower by 50% than those who have a weak social network. Such a health impact is comparable to abstinence from smoking or drinking, and superior to obesity care or exercise³⁾. A recent research trend is to reconceptualize social network as “social capital” and in-depth analysis of this concept is being conducted. For example, the effect of a social network is accounted for using the terms of cognitive social capital (e.g., trust, reciprocity) and structural social capital (e.g., civic engagement), or bonding social capital (i.e., networks among people with similar social identities) and bridging social capital (i.e., networks among people with heterogeneous social identities)⁴⁾. Regarding the impacts on health, the importance of “upper reachability” or “the strength of weak ties” have been emphasized^{5,6)}.

A major limitation of these studies is that it is still difficult to find valid and reliable evaluation tools for social networks or social capital. A psychometrically validated instrument refers to a measurement tool with content validity, criterion validity, and reliability. Content validity means how consistent the conceptual definition of ‘resources embedded in the social network’ is with the measurement tool⁷⁻⁹⁾. Criterion validity means the degree of convergence with a tool that can be seen as a “gold standard” among the measurement tools developed until now. Unfortunately, no conceptual definition regarding social capital that is internationally

agreed exists yet¹⁰⁻¹³⁾. Thus, it is difficult to verify content validity. However, criterion validity can be verified because the general characteristics of social networks (e.g., types of relationships, specific alter, social resources, the structure or size of the network) could be analyzed through the name-generator method which is known as being the most complete measurement of social networks until now⁹⁾. However, there is a paucity of studies that address this issue¹⁴⁾.

In this context, the study of Youm and Sung¹⁾ that investigated a complete network in a specific area using the name-generator method is very important because there is the possibility of verifying the construct validity of a more practical social network, or developing a new measurement tool. A clear disadvantage of the name-generator method is that it is not practical. Owing to the nature of the survey, total or equivalent representative samples must be investigated, and this entails high financial and time costs. Therefore, more valid and practical tools need to be developed that can be simply implemented through a survey or that can evaluate “resources embedded in social networks” during the clinical diagnostic process. I would like to suggest a few practical measurement tools that are within the current scope of my knowledge. Unfortunately, the validity and reliability of these measurement tools are hardly known.

- (1) Practitioner Assessment of Network Type: This tool was developed based on a qualitative research in England by Wenger and Tucker¹⁵⁾. It is widely quoted because it can classify social support networks into five types through 8 simple questions. Reports has been published in South Korea arguing that these support network types mediate geriatric function in association with food choice and diet quality^{16,17)}.
- (2) Social Participation: The simplest question to measure social capital through a survey is “In the last 12 months have you been an active member of any of following types of group?”¹⁸⁾ It has been reported that the disability and mortality risks after three years for elderly people who responded that they had not participated in any group were higher by 1.52 fold (odds ratio, 1.18–1.94) and 1.37 fold (hazard ratio, 1.19–1.68), respectively¹⁹⁾. By adding the question, operational defi-

nitions of bonding and bridging social capital could be made: "In the past year, would you say that the composition of the group that you have participated in is similar or diverse with respect to age, gender, occupation, and educational background?"^{20,21)}

To summarize, Youm and Sung¹⁾ conducted an important study that can reveal the "core resources embedded in social networks" of elderly people in South Korea. Is the size of the network contributing to health important? Or are structural characteristics such as in-degree centrality more important? Is whom you have relationships with more important than the network structure? Is the type of relationships more important or is the heterogeneity of member composition more important? In the future, more valid and practical social network evaluation tools need to be developed with such research questions in mind.

Conflicts of Interest Disclosures: The researchers claim no conflicts of interest.

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