

## Centralization and Decentralization of Telemedicine Networks in Korea and Japan: Case Studies of Choongbook and Kagawa

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Previous studies on the optimal spatial organization of telemedicine networks have offered a diversity of opinions. However, many countries have concluded that regionalization may be the most viable approach. Regionalization would ensure that patients could access and use medical institutions offline (in person) while guaranteeing them online access to a network of medical institutions via the telecommunication facilities of a telemedicine supplier. Although Korean and Japanese telemedicine practices have developed within the context of regional health care delivery, their effectiveness has not yet been verified by studies that use geographical approaches. Therefore, this paper puts forth arguments on the geographical characteristics of telemedicine networks in Korea and Japan and explores the social and medical backgrounds of telemedicine operations. I use as case studies Choongbook in Korea and Kagawa in Japan. According to the results of my investigation, most of the telemedicine networks in Choongbook, Korea, tend to be centralized in the Kyunggi diagnostic area (in the central part of Korea), even though in principle, a secondary diagnosis performed through telemedicine should be carried out within the same diagnostic area as the primary diagnosis. In the case of Kagawa, Japan, telemedicine networks are decentralized by diagnostic areas. As a result, the contrast between Korean and Japanese geographical layout of medical infrastructure may be summarized as the centralization and decentralization of telemedicine networks, respectively. This contrast is the product of technical and methodological differences in data control, different underlying health care policies (including political objectives that were originally determined by the social and cultural environment of each country), and the knowledge of medical institutions and regional health care by patients and medical workers.

Keywords: telemedicine, regionalization, Korea, Japan, centralization, decentralization