

Analysis of Spatial Hierarchy according to the Location of Senior Centers in Apartment Complexes.

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- **Abstract:** Research on the quality of social care and welfare facilities for the elderly is increasing to prepare for the future of our rapidly aging society. Yet the use of senior centers in large apartment complexes has been reduced, which may be due to accessibility issues. While most of the senior centers in apartment complexes have grown in quantity, they are still lacking in quality. Although the number of apartments has increased exponentially, there is a lack of research on the senior facilities in these apartment complexes. In particular, there has been no research on the senior centers in apartment complexes that considers accessibility and recognition based on spatial hierarchy related to the physical characteristics of the elderly. Therefore, this study was conducted in four stages to analyze the spatial hierarchy of the circulation in senior centers in apartment complexes in Korea. First, this study examined the role of senior centers and considered the research trends related to such facilities. Space syntax was used to calculate the accessibility and recognition during this process. Second, the research cases were primarily limited to Seoul, Korea. After selecting Songpa-gu, which has the largest population, a survey of apartment complexes jointly built by leading construction companies was conducted. Based on the results, axial maps were created to obtain the connectivity, global integration, and local integration of the axial lines exposing each apartment complex and senior center. Third, the accessibility and recognition of the senior centers locations were analyzed by comparing the index values of each apartment complex and senior center. Fourth, based on the analyzed index values, the researchers recorded the number of people who visited each senior center. The main findings of this study are as follows. Although the senior centers in the jointly constructed apartment complexes were located in areas with relatively higher accessibility and recognition, there was no correlation between the size of the apartment complex and the number of visitors. The relatively small complexes had more visitors. On the other hand, the use of senior centers in large apartment complexes was reduced, which may be due to accessibility.
- **Keywords:** Senior center, Apartment complex, spatial hierarchy, Accessibility, Recognizability