

Behavioral Errors of the Elderly with Dementia and Their Residential Environment - A comparative study of nursing homes and group homes in Japan

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According to the Japanese national statistics, the number of the elderly with dementia within those certified as eligible for long term care is estimated 1.7 million in 2005, which, at the same time, is estimated to grow up to 2.5 million by the year 2015. In the year 2002, about the half of the elderly with dementia lived in community and the rest lived in institutionalized residences of any kind with long term care service. Since the population of the elderly is estimated to increase further to mark 1/4 of the whole population of Japan at its peak after 2015, we expect that the need for long term dementia care at institutionalized residences should increase in the future. There have been many Environmental Behavior studies undertaken at nursing home environment in Japan. Parallel with the studies, promotion of private rooms at nursing homes was implemented in government policy, and further forwarded the spread of small scale group homes throughout the country. In this paper, the authors argue environmental differences between the 2 major types of residential facilities for the elderly people with dementia in Japan, i.e. nursing homes (NH) and group homes (GH), by examining residents' behavioral errors occurred within either of the two environments. The cases of the residents' behavioral errors were collected by interviewing the trained care staff of each facility, and classified into 8 categories. The result suggests that these categories are further summarized into 3 patterns: the first, represented by category II - behavioral errors in relation with spatial disorientation -, is the ones which are observed more in NH than in GH. And the second, represented by category I & VI - errors in appropriately going in and out of the building or a room, and errors in doing suitable tasks in an appropriate time and place, respectively -, is the ones vice versa. The third, represented by category III & V - errors which accompany urinary or excretory problems and/or sanitary troubles, and errors on handling the things either caused by the confusion of possession or in manipulating ordinary tools -, is the ones which are observed frequently at certain residences but not necessary of the same type. Detail examination of the cases further suggests that environmental differences between the two facility types might bring these differences in numerical distribution of the patterns.

According to the Japanese national statistics, the number of the elderly with dementia within those certified as eligible for long term care is estimated 1.7 million in 2005, which, at the same time, is estimated to grow up to 2.5 million by the year 2015 1). In the year 2002, about the half of the elderly with dementia lived in community and the rest lived in institutionalized residences of any kind with long term care service. Since the population of the elderly is estimated to increase further to mark 1/4 of the whole population of Japan at its peak after 2015, we expect that the need for long term dementia care at institutionalized residences should increase in the future. There have been many Environmental Behavior studies undertaken at nursing home environment in Japan. Some of them indicated providing private rooms to be appropriate for institutional residences compared to shared rooms 2)3), and others argued small-scale and homelike care environment to be desirable 4). Parallel with these studies, promotion of private rooms at nursing homes was implemented in government policy, and further forwarded the spread of small scale group homes throughout the country. In this paper, the authors argue environmental differences between the 2 major types of residential facilities for the elderly people with dementia in Japan, i.e. nursing homes (NH) and group homes (GH), by examining residents' behavioral errors occurred within either of the two environments. The 167 cases of the residents' behavioral errors were collected by interviewing the trained care staff of 2 nursing homes and 3 group homes along with the data of the physical environment where each of the case occurred, then classified into 8 categories as shown below; Category I: behavioral errors in appropriately going in and out of the building or a room. Category II: behavioral errors in relation with spatial disorientation. Category III: behavioral errors which accompany urinary or excretory problems and/or sanitary troubles. Category IV: behavioral errors in relation with dietary customs. Category V: behavioral errors on handling the things either caused by the confusion of possession or in manipulating ordinary tools. Category VI: behavioral errors in doing suitable tasks, i.e. routine works etc., in an appropriate time and place. Category VII: behavioral errors in handling

switches. Category VIII: behavioral errors in relation with communication. The residual analysis is implemented on the cross table of the number of reported cases for each of the 8 behavioral categories by the 5 facilities. The result suggests that these categories are further summarized into 3 patterns: the first, represented by category II - behavioral errors in relation with spatial disorientation -, is the ones which are observed more in NH than in GH. And the second, represented by category I & VI - errors in appropriately going in and out of the building or a room, and errors in doing suitable tasks, respectively -, is the ones vice versa. The third, represented by category III & V - errors which accompany urinary or excretory problems and/or sanitary troubles, and errors on handling the things -, is the ones which are observed frequently at certain residences but not necessary of the same type. Detail examination of the cases further suggests that environmental differences between the 2 facility types might bring these differences in numerical distribution of the patterns. References 1) The Ministry of Health, Labour and Welfare (2002) Current status of the elderly with dementia and future estimation, recorded in Health and Welfare Bureau for the Elderly, 2005, Reorganization of Long-Term Care Insurance System, The Ministry of Health, Labour and Welfare (in Japanese). 2) Inoue, Y., Toyama, T., Otaki, K. & Ohara, K. (1997). Factors which facilitate personalization of space in nursing homes. *Journal of Architecture, Planning and Environmental Engineering*, 501, 109-116. 3) Inoue, Y., Toyama, T., Otaki, K. & Ohara, K. (1998). Analyzing individual care in the nursing home as a place of residence. *Journal of Architecture, Planning and Environmental Engineering*, 508, 83-89. 4) Nagahara, K., Ishii, S. & Matsumoto, A. (1998). Evaluating the effectiveness of small-scale care units in caring for elderly with dementia: a comparison between a psychiatric ward and a group home. *Journal of Architecture, Planning and Environmental Engineering*, 514, 79-86.