



KEY POINT SUMMARY

OBJECTIVES

The objective of this research was to explore/study the perceptions of healthcare providers and designers regarding the physical environment of elder-friendly hospitals.

Exploring Perceptions of Designers and Medical Staff in South Korea about Design Elements for the Elder-Friendly Hospital

Kim, D., Lee, J. H., & Ha, M. 2014 | *Journal of Interior Design*. Volume 39, Issue 4, Pages 15-32

Key Concepts/Context

The elderly population is growing around the world and so is the geriatric patient population. The authors indicate that despite the fact that the elderly will soon be the primary users of healthcare services, healthcare facilities are not designed for the elderly. In this study, designers and medical staff were asked to rate the importance of 33 design elements in the context of an elder-friendly hospital. Both the design and the medical group considered safety – fall prevention and infection control – to be primary design issues in an elderly healthcare environment.

Methods

A self-administered survey was conducted among designers and medical staff in two hospitals in South Korea. One was an academic hospital while the other was an elder-friendly hospital. The medical group was comprised of doctors, nurses, administrators, researchers, physiotherapists, and social workers, while the design group included architects, interior designers healthcare design researchers, professors, landscape architects, and facility managers. The data gathered was analyzed statistically – descriptive analysis, independent sample t-tests, Principal Component Analysis, and Factor Analysis. There were 92 respondents in the design group and 99 from the medical group. They were asked to rate their perceptions of 33 design elements (that were determined on the basis of an extensive literature search) on a Likert scale ranging from 1 (not at all important) to 5 (extremely important).

Findings

The survey data indicated that both design and medical group respondents considered safety – fall prevention and infection control – to be a primarily design



issue. The medical group was more concerned about the physical health of the patients, while the design group was more concerned about their psychological and social health.

The survey analysis revealed seven key design factors as critical to the design of hospitals catering to elderly patients. These factors are listed below in order of importance as rated by the respondents:

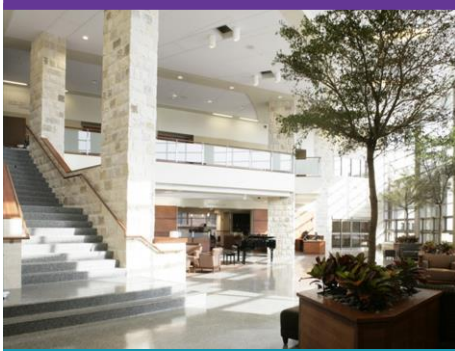
1. Fall prevention (statistically significant for handrails in corridors and pathways ($p < .05$), safety bar in bathroom ($p < .05$), furniture without sharp edges ($p < .01$), visual connection with nurse station ($p < .05$))
2. Infection prevention (statistically significant for hand-washing sink and associated hygiene products ($p < .05$))
3. Privacy (statistically significant for private territory in multi-bed spaces ($p < .01$), speech privacy and confidentiality ($p < .01$), views of nature ($p < .01$))
4. Familiarity (statistically significant for age-appropriate lighting and color ($p < .05$))
5. Wayfinding (statistically significant for color code for wayfinding ($p < .01$), comprehensive signage system ($p < .01$), patient doors allowing for personalization ($p < .05$), open space with daylight in public area ($p < .01$))
6. Social support (statistically significant for small size and low-density social space ($p < .05$), community buildings or congregate activity rooms ($p < .01$))
7. Nature distraction (statistically significant for indoor plants ($p < .05$))

Principal Components Analysis of the data indicated that:

- Nature distraction can positively affect wayfinding
- Wayfinding is beneficial to social support
- Familiarity has a correlation with social support
- Privacy is associated with familiarity, social support, way-finding, and nature distraction

Limitations

The authors consider their study location of Seoul, South Korea as a limitation because it is possible that perceptions could vary culturally in other areas of the country.



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Other limitations:

- Although the survey was administered in two different hospitals, the authors do not indicate the difference in data collected from the two hospitals. Given that one of the hospitals is not an elder-care hospital, the difference in perceptions of the respondents of that hospital could be crucial to the findings.
- The authors do not specify the number of respondents by hospital.

Design Implications

When designing elder-friendly or geriatric hospitals, following design factors may be considered:

- Fall prevention – handrails in corridors and pathways, safety/grab bars in bathrooms, furniture without sharp edges, and visual link with the nurse station
- Multi-bedded spaces – private territory to ensure privacy and confidentiality and nature views
- Familiarity – age-appropriate lighting and color
- Wayfinding – color codes, comprehensive signage, provision for personalizing patient room doors, open space with daylight in public spaces
- Social support areas – small in size for less people and community buildings/ activity rooms
- Nature distraction – indoor plants
- Infection prevention – hand-washing sinks

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