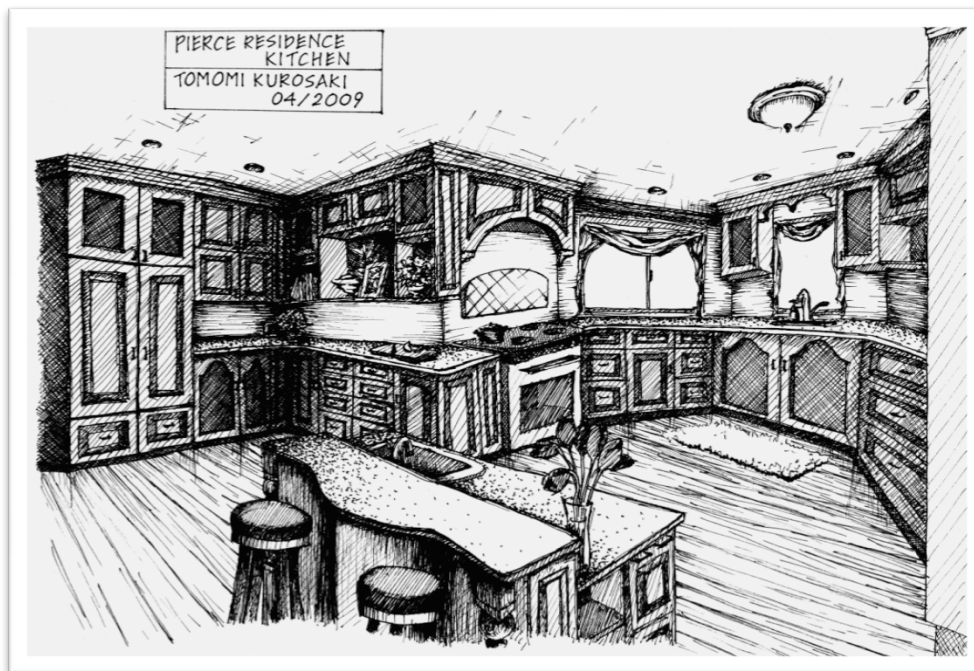
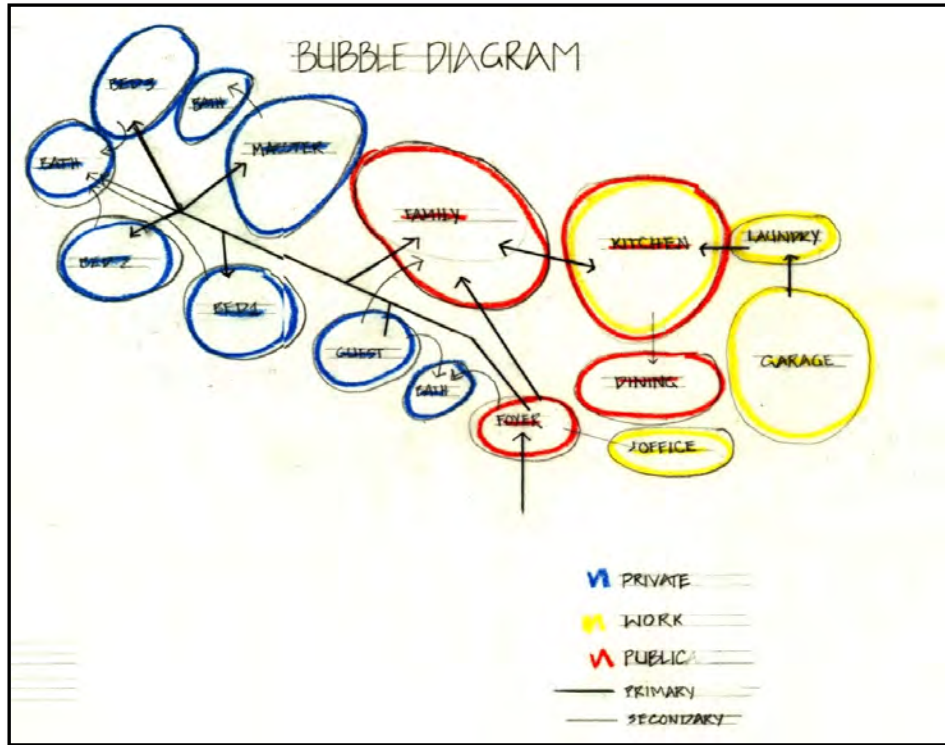


J. Davis Harte
Portfolio – Student Work

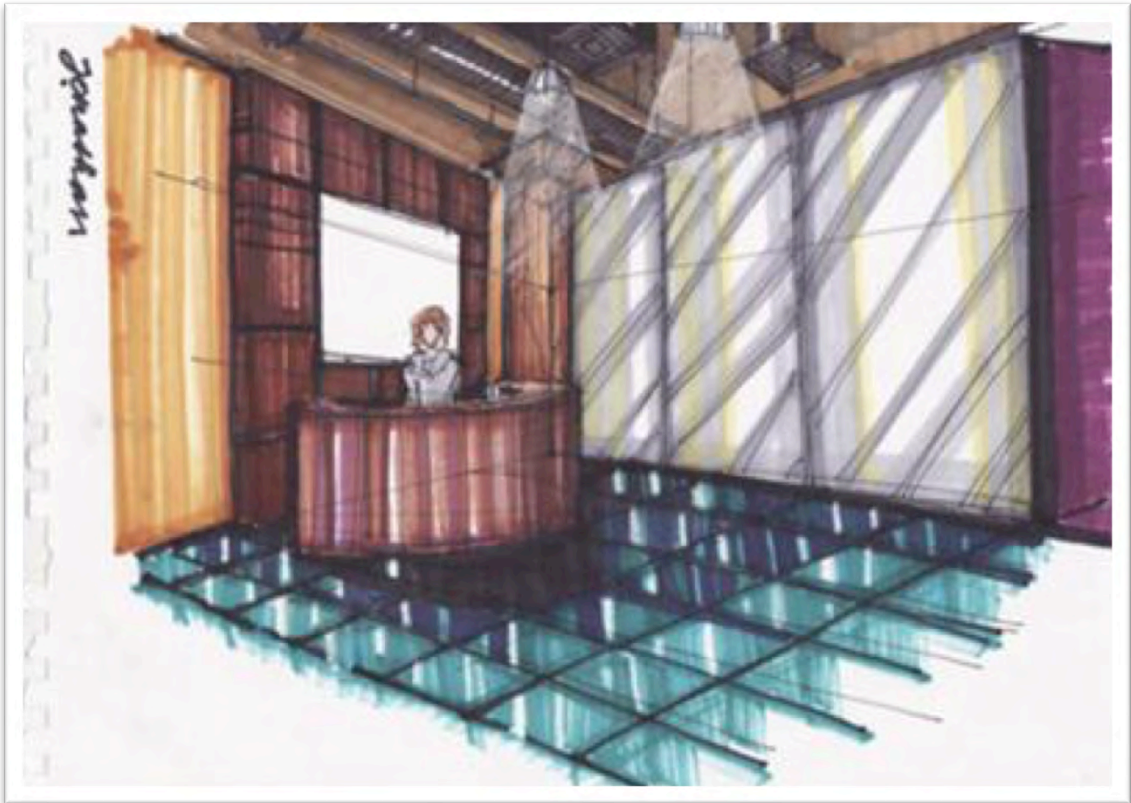
Undergraduate student work examples



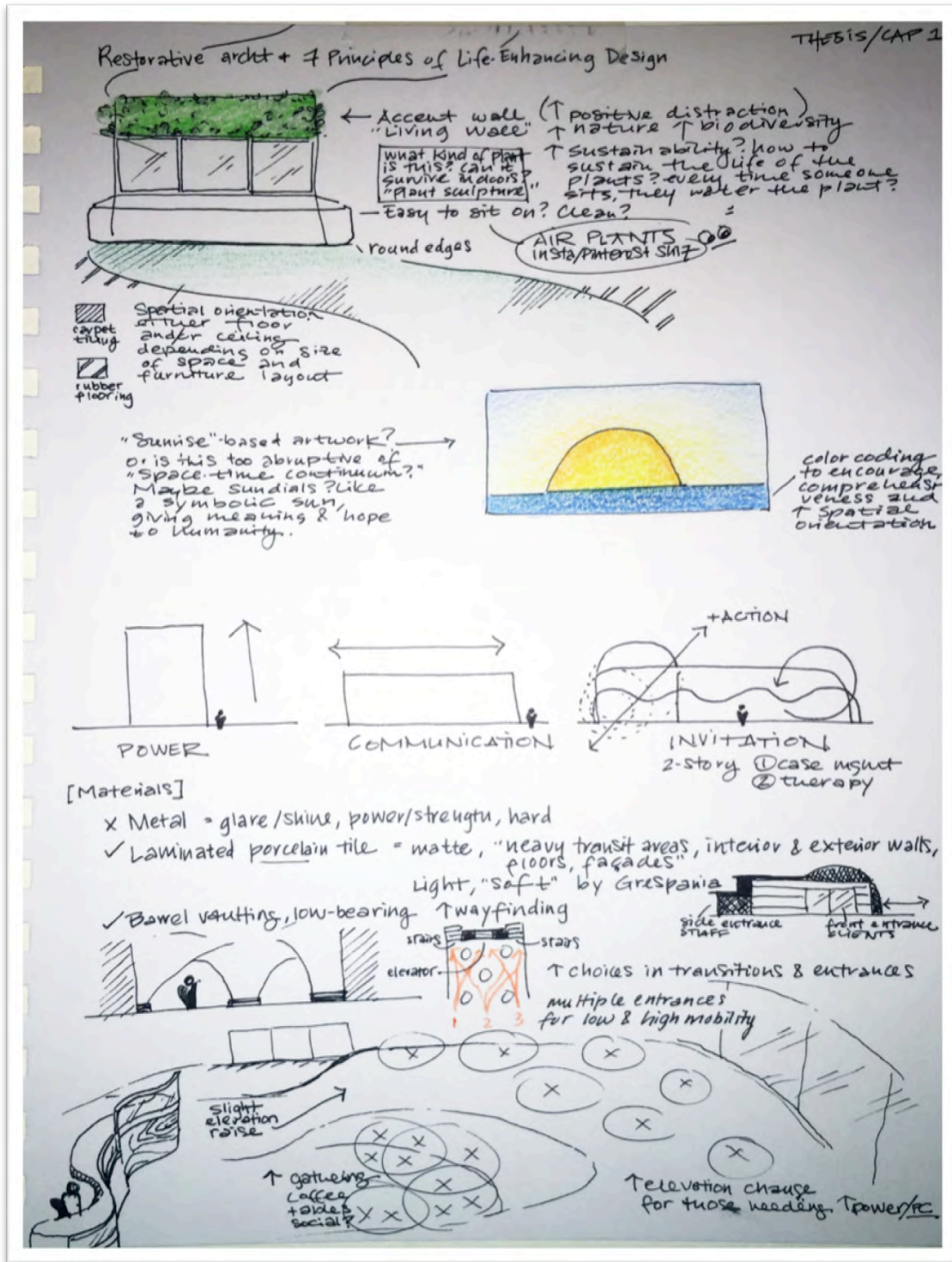


CLIENT: SIMPSON DATE: MAY 2009

DESIGNER: L'VANCE SCALE: N/A



Recent Graduate Student Work Samples
Masters in Design for Human Health (MDS) – Thesis Capstone
The Boston Architectural College



Student conceptualization of thesis

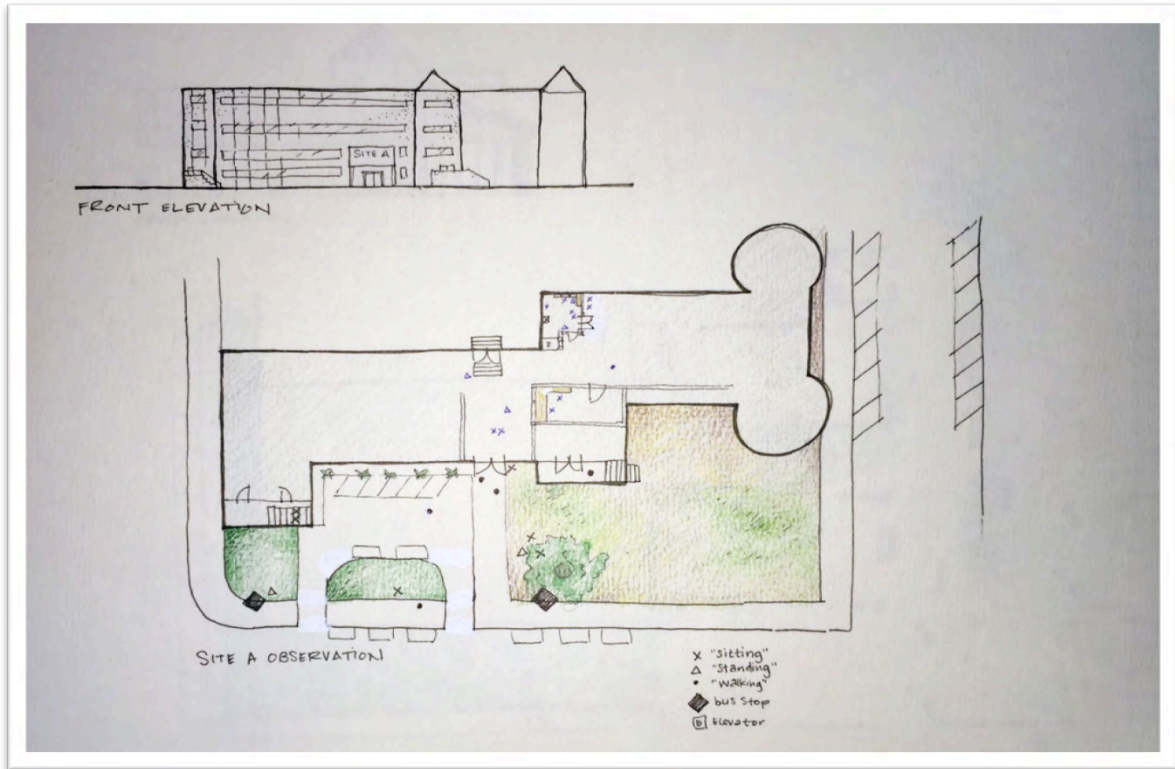


Figure A1. Site A – Front elevation and floor plan with behavioral mapping.



Figure D4. Preliminary sketch of interior lobby.

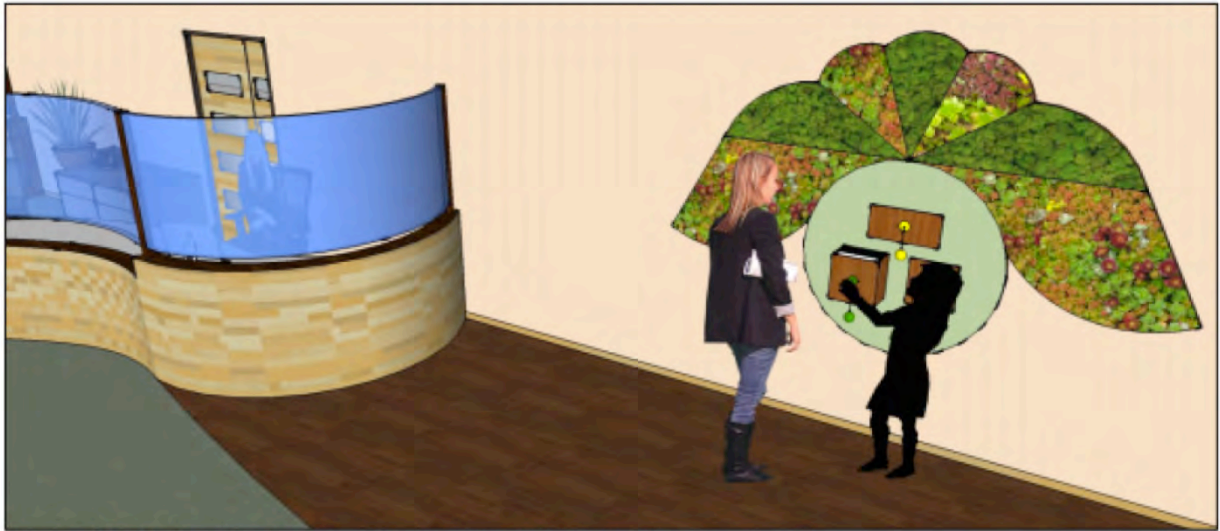


Figure D5. Model of information kiosk in the interior lobby.



Figure E7. Second floor lobby, view from receptionist.

HOGAR CAMPESTRE ANAPOIMA

Design program: a new facility based on evidence-based design and on site qualitative descriptive method data analysis

Karina Rodriguez Winkler
Master of design studies Degree for Human Health
Boston Architectural College
2016

Introduction

This work analyzes the current environmental conditions of the Hogar Campestre Anapoima, a geriatric home located in Colombia, in order to present the design recommendations for the new facility planned for construction in the adjacent lot. The research analysis focuses on evaluating how the physiological, psychological and sociological aspects of the elderly users relate to the built environment, in order to present design insights that can be implemented in both, in the current location and applied in the new facility. The qualitative descriptive method allows for a multi-method, multi-site, approach with a focus on observation, in-depth interviews of staff, and analysis of the institutional data acquired. Williams' model of social performance levels in elderly people (1986) was adapted into a new model that permits coding and correlates with the health conditions of the elderly users, with environmental gerontology evidence based design recommendations.

Demographics

Total population: 2,612,240 (DAE, 2005)

45.4%
54.6%

89.8% of the older population lived in private homes

1.2% lived in Special Places for Accommodation

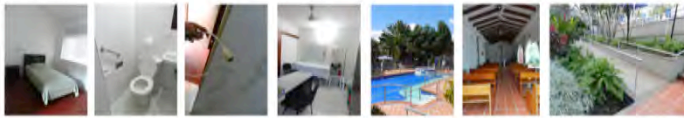
80% did not receive pension

Boys: 14.1%
Principal cities: 14.41%
Secondary cities: 17.2%
Towns and rural areas: 54%

Hogar Campestre Anapoima

Located one and a half hours from Bogotá in the town Anapoima.
2329 feet over the sea level.
Temperature varies between 75°F and 85°F

The center has a capacity for 27 elders, with 18 in residence at the time of the program. Every room is independent (Image 1). Includes its own bathroom (Image 2), closet, fan, TV connection, and emergency calling device next to the bed and in the bathroom (Image 3). On-site there is a nursing station (Image 4), swimming pool and jacuzzi (Picture 5), gym, dining area, TV room, living room, office, chapel (Picture 6), kitchen, and laundry room. The facilities are equipped with ramps that allow access to all areas of the center (Picture 7), with gardens, a water fountain and sitting areas throughout the property.



Objectives

General objectives

Analyze the current environmental conditions and the way these relate with the physiological, psychological and sociological needs of all the users, and present design solutions that can be applied into the current facility and to the design of the new adjacent area.

Specific objectives

- Identify existing research literature regarding older health conditions and disabilities, and the evidence based design literature associated with healthcare and environmental gerontology.
- Investigate the current national and local regulations of elderly care facilities, and establish if the geriatric home is compliant with them.
- Generate qualitative and quantitative data incorporated in a qualitative descriptive method, in order to analyze if all physiological, psychological and sociological needs of the users are met.
- Present a final design applicable in the context, for the residents new facility after coding and analyzing all of the data.

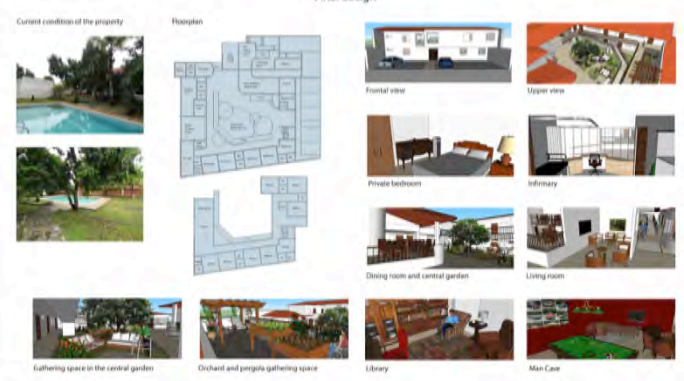
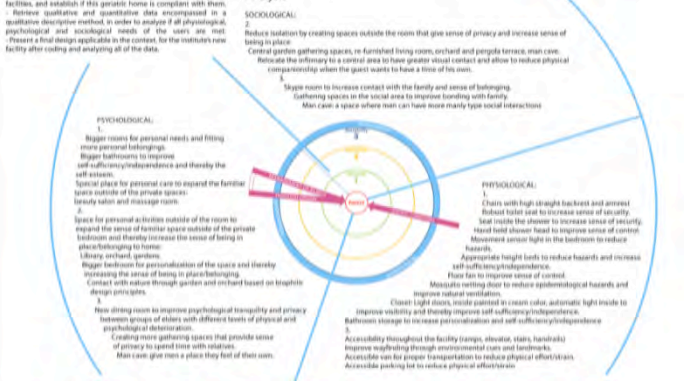
Method

This project is a single case study that used a qualitative descriptive method. It is a mixed method study, designed through a post-positivist research model, with both qualitative and quantitative data collected. This contributes to a multidisciplinary understanding of the current built environment conditions and the way these relate with the different needs of the users. The data collection techniques were in-depth interviews, observation, and data extracted through the center.

Findings

In-depth interviews reflected eleven items assigned to three categories: physiological, psychological, sociological. Observation analysis of the structural aspects, facilities, and accessories coded through the eleven items retrieved through the interviews, and the literature review. Data received from the geriatric center access to the diagnosis of all the current geriatric assistance need statistics about the activities of daily living addressed by Williams (1986) in the model of social performance levels for elderly people.

Analysis



Conclusion

The in-depth interviews technique contributed to developing a framework around the current problematic and conditions of the Hogar Campestre Anapoima, analyzing structural and psychological factors into the report. The observations helped to identify the current environmental conditions, necessities and the climatological context of the place, while at the same time transporting the information gathered from the interviews. Finally, the data retrieved from the center helped clarify the physiological variables that make part of every day life in the center, and how these help forge the dynamic of assistance and companionship between the elders and the nursing staff.

This environmental interventions contribute from different fronts to improve the physiological, psychological and sociological relations with the surroundings by implementing the levels of personal self-sufficiency/independence and reducing the need of assistance in activities of daily living, improving the sense of being in place of the current and upcoming guests through the creation of social private spaces that support the variety of activities that can be made and the personalization of the spaces, and promote a better sense of community and socialization within the Hogar Campestre Anapoima.

References

Williams, J. (1986). Social performance levels for elderly people. *Journal of Aging and Health*, 1(1), 1-16.

Williams, J. (1986). Social performance levels for elderly people. *Journal of Aging and Health*, 1(1), 1-16.

Williams, J. (1986). Social performance levels for elderly people. *Journal of Aging and Health*, 1(1), 1-16.

Student final board for Capstone Thesis



Illustration 16: First floor view of the dining room and central garden. The dining room is designed to have direct view to nature, which is according to biophilic design principles a positive feature for psychological health and wellbeing. It is also a feature that is associated with faster recovery in health care environments.



Illustration 2: Upper view of the new facility. Illustrates the rooms of the first and second floor; the central garden with its gathering spaces; the access ramp to the second floor; and the orchard and neralin's antherina area

Renderings Capstone Thesis Project

TABLE 3 — LIST OF STUDIES INCLUDED FOR FIELD-RELEVANCE

Authors	Year	Title of Work
Cardinal Health	n.d.	<i>Helping Clinicians Get Out of the Supply Room and Back to Their Patients: How Medical West Hospital transformed its supply chain</i>
Catrambone, C., Johnson, M. E., Mion, L. C., & Minnick, A. F.	2009	The Design of Adult Acute Care Units in U.S. Hospitals
Chaudhry, H. & Mahmood, A.	2007	The effect of environmental design on reducing nursing and medication errors in acute care settings
Gorgich, E. A. C., Barfroshan, S., Ghoreishi, G., & Yaghoobi, M.	2016	Investigating the Causes of Medication Errors and Strategies to Prevention of Them from Nurses and Nursing Student Viewpoint
Hall, W. P.	2016	<i>A comparison of the strengths and weaknesses of the various approaches to replenishing storage areas</i>
Hendrich, A., Chow, M. P., Bafna, S., Choudhary, R., Heo, Y., & Skierczynski, B. A.	2009	Unit-related factors that affect nursing time with patients: spatial analysis of the time and motion study
Hendrich, A., Chow, M. P., Skierczynski, B. A., & Lu, Z.	2008	A 36-Hospital Time and Motion Study: How Do Medical-Surgical Nurses Spend Their Time?
Parker, F. M., Eisen, S., & Bell, J.	2012	Comparing centralized vs. decentralized nursing unit design as a determinant of stress and job satisfaction
Tucker, A. L., Heisler, W. S., & Janisse, L. D.	2014	Designed for Workarounds: A Qualitative Study of the Causes of Operational Failures in Hospitals
Ulrich, R., Quan, X., Zimring, C., Joseph, A., & Choudhary, R.	2004	The Role of the Physical Environment in the Hospital of the 21st Century: A Once-in-a-Lifetime Opportunity
Westbrook, J. I., Duffield, C., Li, L., & Creswick, N. J.	2011	How much time do nurses have for patients? a longitudinal study quantifying hospital nurses' patterns of task time distribution and interactions with health professionals
Westbrook, J. I., Woods, A., Rob, M. I., Dunsmuir, W. T. M., & Day, R. O.	2010	Association of interruptions with an increased risk and severity of medication administration errors

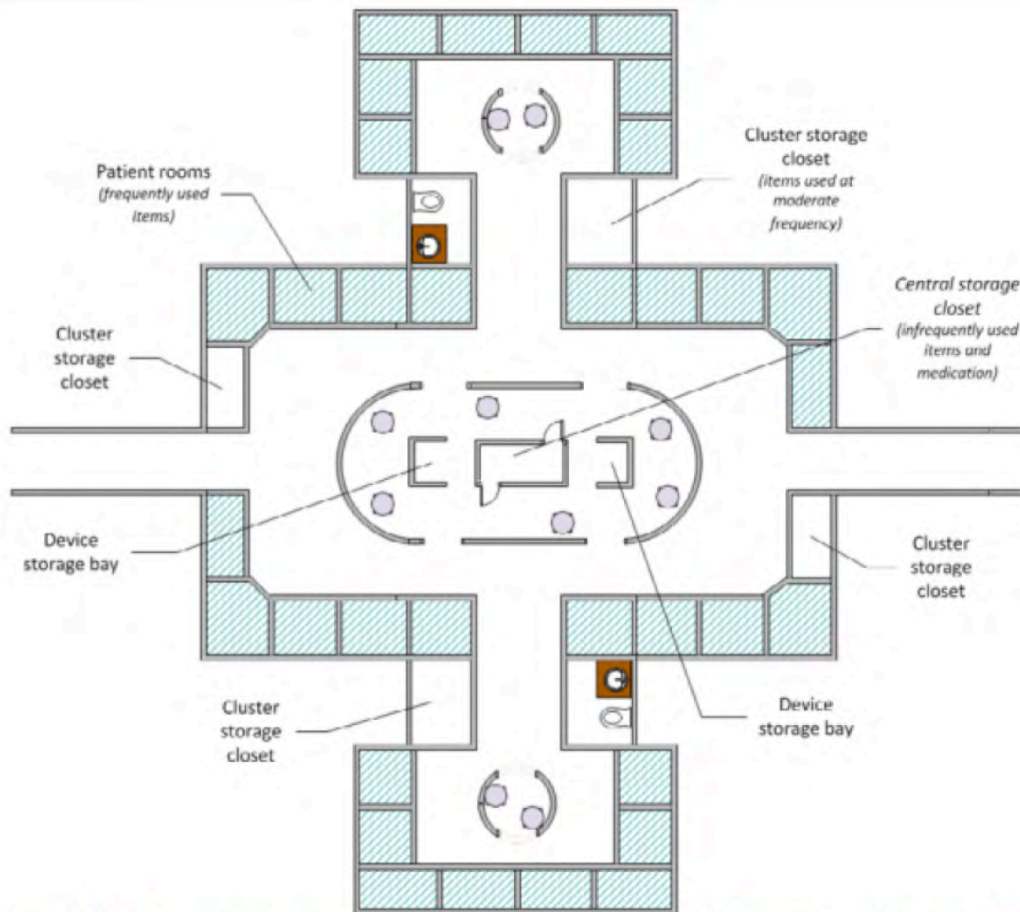


Figure 9 — Multiple, centralized nursing station clusters, with decentralized in the unit, reduce distances for nursing staff to reach storage locations while upholding communication. Storage is allocated by frequency of use, as a longer trip at an infrequent intervals and frequent smaller trips are less burdensome on staff than frequent long trips.