



KEY POINT SUMMARY

OBJECTIVES

The objective of the study was to examine pharmacists' satisfaction with four major working spaces in the hospital pharmacy environment, in relation to their job satisfaction, intention to leave their job, intention to reduce working hours, and job stress.

Servicescape: Physical Environment of Hospital Pharmacies and Hospital Pharmacists' Work Outcomes

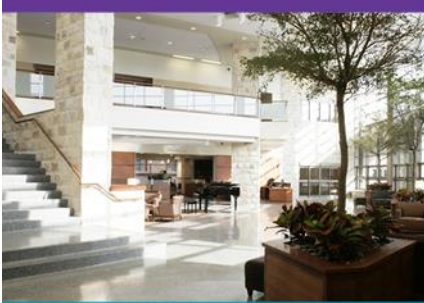
Lin, B.Y.-J., Leu, W.-J., Breen, G.-M., Lin, W.-H.
 2008 / *Health Care Management Review*
 Volume 33, Issue 2, Pages 156-168

Key Concepts/Context

Researchers have studied the healthcare work environment from a number of angles, from an organizational behavior perspective honing in on motivation and reward, to an occupational and environmental perspective concerned with comfort and ergonomics, to a pathogenic perspective interested in exposure to disease. The idea of a “servicescape” has arisen in healthcare marketing to investigate the impact of the physical environment of service settings on employees' psychological states and perceptions. While some research has looked at the impact of healthcare environments on employees' work outcomes, it appears that limited research has been conducted focusing specifically on hospital pharmacy employees. The current study assesses pharmacists' perceptions of their work environments in Taiwanese hospitals, and the connection to four main work outcomes: job stress, job satisfaction, intent to quit, and intent to reduce working hours.

Methods

The authors mailed structured questionnaires to a total of 1,110 hospital pharmacists working at hospital pharmacies spanning different hospital accreditation levels and different geographic locations in Taiwan. The questionnaire consisted of physical environment measures and work outcome measures. The physical environment questions comprised 87 items relating to ambient conditions of four main working spaces: dispensing areas, pharmaceutical areas, storage areas, and administrative areas. Ambient conditions included variables such as air quality, lighting, temperature, odors, textures, layout, furnishings, and equipment. Pharmacists were asked to express their satisfaction with each physical variable in their work environment along a 5-point Likert scale, from *least satisfied* (1) to *most satisfied* (5), or otherwise *not applicable*. Work outcome variables – job satisfaction,



The Center for Health Design: Moving Healthcare Forward

The Center for Health Design advances best practices and empowers healthcare leaders with quality research providing the value of design in improving patient and performance outcomes in healthcare facility planning, design, and construction, optimizing the healthcare experience and contributing to superior patient, staff, and performance outcomes.

Learn more at
www.healthdesign.org

intent to leave the job, intent to reduce working hours, and job stress – were measured using a 0-100 scale. The authors also collected information about pharmacists' gender, age, education, geographic location, work experience, and accreditation level of the hospital in which they worked. A validated model (structural equation model) was used to test the authors' hypotheses.

Findings

182 pharmacists filled out and returned the surveys, for a 16.4% response rate. The authors confirmed three of their four hypotheses. In particular, they found that perceptions of the physical hospital pharmacy environment were positively associated with job satisfaction, meaning higher satisfaction with the environment correlated with higher job satisfaction. Perceptions of the physical environment were negatively associated with pharmacists' intent to leave their jobs as well as their intent to reduce their working hours, meaning that higher satisfaction with the environment was related to lower intent to quit or reduce hours. The fourth hypothesis, that environmental perceptions would be negatively associated with job stress, was not supported by the study. Looking at the questionnaire item by item, the authors found that seven physical environment variables were ranked consistently lower than the rest in terms of pharmacist satisfaction: space design and functional design of the outpatient dispensing table; noise of equipment in outpatient, emergency, and inpatient areas; interior design of storage areas; and space design of admin areas.

Limitations

The authors described the low response rate (16.4%) as a limitation of the study, as well as the inability to analyze who (of the original sample of pharmacists) did not respond to the survey.

Design Implications

Pharmacists may be particularly sensitive to noise and auditory disturbances in their work environment, since 3 of the bottom 7 environmental items related to noise issues. Acoustic solutions that muffle the sound of drug-related equipment might increase pharmacists' satisfaction with their work environment. More research is needed to better understand the exact reasoning behind pharmacists' dissatisfaction with the outpatient dispensing table, storage areas, and admin areas. Additionally, further probing would be useful to understand items that a subset of pharmacists ranked as unsatisfactory. For instance, 35% of respondents ranked air conditioning temperature as *dissatisfied*, while the average of all respondents was not particularly low. Nonetheless, temperature control may be an important design consideration.