



RESEARCH IN A SNAP

OVERVIEW

We're keeping you updated on papers added to The Center's Knowledge Repository.

The Knowledge Repository is provided with the funding support of:

Academy of
Architecture for Health

an AIA Knowledge Community



Additional key point summaries provided by:



RESEARCH-DESIGN
CONNECTIONS

Knowledge Repository News

How do you use the Knowledge Repository? We're hoping you'll let us know by taking a quick survey. [SURVEY LINK](#)

In this snap, we're thrilled to include a citation from last year's New Investigator Award recipient, Lori Reynolds. Results from her study on a virtual nature experience reducing anxiety and agitation in people with dementia were just published in the [Journal of Housing for the Elderly](#), or, you can read [her own summary of the paper here](#). We extend a hearty congratulations to the contributions of another new investigator. This year's call for proposals for the [New Investigator Award](#) will be announced shortly.

(Published ahead of print "in press" will be updated as volume and page information becomes available.)

March-April 2018

Dementia

1. Konis, K. (2018). Field evaluation of the circadian stimulus potential of daylight and non-daylit spaces in dementia care facilities. *Building and Environment*, in press. <https://doi.org/10.1016/j.buildenv.2018.03.007>
2. Palm, R., Trutschel, D., Sorg, C. G. G., Dichter, M. N., Haastert, B., Holle, B., & Castle, N. G. (2018). Quality of Life in People With Severe Dementia and Its Association With the Environment in Nursing Homes: An Observational Study. *The Gerontologist*, in press. <https://doi.org/10.1093/geront/gny017>
3. Reynolds, L., Rodiek, S., Lininger, M., & McCulley, A. (2018). Can a Virtual Nature Experience Reduce Anxiety and Agitation in People With Dementia? *Journal of Housing For the Elderly*, in press. <https://doi.org/10.1080/02763893.2018.1431583>
4. Soilemezi, D., Kallitsis, P., Drahota, A., Crossland, J., Stores, R., & Costall, A. (2017). The Impact of the Physical Home Environment for Family Carers of People with Dementia: A Qualitative Study. *Journal of Housing For the Elderly*, 31(4), 303–333. <https://doi.org/10.1080/02763893.2017.1335666>

Aging/Elders

5. Andrew, A., & Ritchie, L. (2017). Culture Change in Aged-Care Facilities: A Café's Contribution to Transforming the Physical and Social Environment. *Journal of Housing For the Elderly*, 31(1), 34–46. <https://doi.org/10.1080/02763893.2016.1268557>



6. Bardenhagen, E., Rodiek, S., Nejati, A., & Lee, C. (2018). The Seniors' Outdoor Survey (SOS Tool): A Proposed Weighting and Scoring Framework to Assess Outdoor Environments in Residential Care Settings. *Journal of Housing For the Elderly*, 32(1), 99–120. <https://doi.org/10.1080/02763893.2017.1393489>
7. Chamberlain, S. A., Weeks, L. E., & Keefe, J. (2017). Factors Influencing Family-Member Perception of “Homelikeness” in Long-Term Care Homes. *Journal of Housing For the Elderly*, 31(4), 394–409. <https://doi.org/10.1080/02763893.2017.1335672>
8. Eijkelenboom, A., Verbeek, H., Felix, E., & van Hoof, J. (2017). Architectural factors influencing the sense of home in nursing homes: An operationalization for practice. *Frontiers of Architectural Research*, 6(2), 111–122. <https://doi.org/10.1016/j.foar.2017.02.004>
9. Frochen, S., & Pynoos, J. (2017). Housing for the Elderly: Addressing Gaps in Knowledge Through the Lens of Age-Friendly Communities. *Journal of Housing For the Elderly*, 31(2), 160–177. <https://doi.org/10.1080/02763893.2017.1309936>
10. Green, D. A. (2014). Conceptualization and development of the Household/Neighborhood Model for skilled nursing facilities: A case study. *Frontiers of Architectural Research*, 3(3), 228–237. <https://doi.org/10.1016/j.foar.2014.02.001>
11. Gustavsson, J., Rahm, G., Jernbro, C., & Nilson, F. (2017). Effects of Impact-Absorbing Flooring in Residential Care from the Perspectives of Enrolled Nurses. *Journal of Housing For the Elderly*, 31(4), 367–381. <https://doi.org/10.1080/02763893.2017.1335670>
12. Haywood, A., Barnes, S., Marsh, H., & Parker, S. G. (2018). Does the Design of Settings Where Acute Care Is Delivered Meet the Needs of Older People? Perspectives of Patients, Family Carers, and Staff. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586717754184>
13. Lachance, C. C., Zaborska, V. O., Leung, P.-M., Feldman, F., Robinovitch, S., & Mackey, D. C. (2018). Perceptions about Compliant Flooring from Senior Managers in Long-Term Care. *Journal of Housing For the Elderly*, in press. <https://doi.org/10.1080/02763893.2018.1431584>
14. Lee, J. H., Ostwald, M. J., & Lee, H. (2017). Measuring the spatial and social characteristics of the architectural plans of aged care facilities. *Frontiers of Architectural Research*, 6(4), 431–441. <https://doi.org/10.1016/j.foar.2017.09.003>
15. Roberts, E., & Pulay, A. (2018). Examining the Nursing Home Physical Environment Through Policy-Driven Culture Change. *Journal of Housing For the Elderly*, in press. <https://doi.org/10.1080/02763893.2018.1431586>
16. Shin, J.-H. (2018). Listen to the Elders: Design Guidelines for Affordable Multifamily Housing for the Elderly Based on Their Experiences. *Journal of Housing For the Elderly*, in press. <https://doi.org/10.1080/02763893.2018.1431585>



Behavioral Health

17. Bolton, J., Palmer, L., & Cawdron, R. (2016). Survey of psychiatric assessment rooms in UK emergency departments. *BJPsych Bulletin*, *40*(2), 64–67. <https://doi.org/10.1192/pb.bp.114.049742>
18. Erbino, C., Toccolini, A., Vagge, I., & Ferrario, P. S. (2015). Guidelines for the design of a healing garden for the rehabilitation of psychiatric patients. *Journal of Agricultural Engineering*, *46*(2), 43–51. <https://doi.org/10.4081/jae.2015.426>

Operating Room Design

19. Bayramzadeh, S., Joseph, A., Allison, D., Shultz, J., & Abernathy, J. (2018). Using an integrative mock-up simulation approach for evidence-based evaluation of operating room design prototypes. *Applied Ergonomics*, *70*(July), 288–299. <https://doi.org/10.1016/j.apergo.2018.03.011>
20. Chraibi, A., Osman, I. H., & Kharraja, S. (2018). Adaptive layout for operating theatre in hospitals: different mathematical models for optimal layouts. *Annals of Operations Research*, in press. <https://doi.org/10.1007/s10479-018-2799-x>
21. Kildea-Pahl, D., Baltimore, J., & Kosiara, B. (2001). Outpatient surgery care unit work process redesign. *Journal of Perianesthesia Nursing: Official Journal of the American Society of PeriAnesthesia Nurses*, *16*(2), 70–81. <https://doi.org/10.1053/jpan.2001.22627>
22. Neyens, D. M., Bayramzadeh, S., Catchpole, K., Joseph, A., Taaffe, K., Jurewicz, K., ... San, D. (2018). Using a systems approach to evaluate a circulating nurse's work patterns and workflow disruptions. *Applied Ergonomics*, in press. <https://doi.org/10.1016/j.apergo.2018.03.017>
23. Taaffe, K., Lee, B., Ferrand, Y., Fredendall, L., San, D., Salgado, C., ... Realizing Improved Patient Care through Human-Centered Design in the Operating Room (RIPCHD OR) Study Group. (2018). The Influence of Traffic, Area Location, and Other Factors on Operating Room Microbial Load. *Infection Control & Hospital Epidemiology*, *39*(4), 391–397. <https://doi.org/10.1017/ice.2017.323>
24. Zhai, Z., & Osborne, A. L. (2013). Simulation-based feasibility study of improved air conditioning systems for hospital operating room. *Frontiers of Architectural Research*, *2*(4), 468–475. <https://doi.org/10.1016/j.foar.2013.09.003>

Infection Prevention

25. Chyderiotis, S., Legeay, C., Verjat-Trannoy, D., Le Gallou, F., Astagneau, P., & Lepelletier, D. (2018). New insights on antimicrobial efficacy of copper surfaces in the healthcare environment: a systematic review. *Clinical Microbiology and Infection*, in press. <https://doi.org/10.1016/j.cmi.2018.03.034>
26. Cohen, B., Liu, J., Cohen, A. R., & Larson, E. (2018). Association Between Healthcare-Associated Infection and Exposure to Hospital Roommates and Previous Bed Occupants with the Same Organism. *Infection Control & Hospital Epidemiology*, in press. <https://doi.org/10.1017/ice.2018.22>



27. Faden, A. (2018). Methicillin-resistant Staphylococcus aureus (MRSA) screening of hospital dental clinic surfaces. *Saudi Journal of Biological Sciences*. <https://doi.org/10.1016/j.sjbs.2018.03.006>

Acoustics/Noise

28. Cerwén, G., Kreutzfeldt, J., & Wingren, C. (2017). Soundscape actions: A tool for noise treatment based on three workshops in landscape architecture. *Frontiers of Architectural Research*, 6(4), 504–518. <https://doi.org/10.1016/j.foar.2017.10.002>
29. McGough, N. N. H., Keane, T., Uppal, A., Dumlao, M., Rutherford, W., Kellogg, K., ... Fields, W. (2018). Noise Reduction in Progressive Care Units. *Journal of Nursing Care Quality*, 33(2), 166–172. <https://doi.org/10.1097/NCQ.0000000000000275>
30. Willis, V. (2017). The Relationship Between Hospital Construction and High-Risk Infant Auditory Function at NICU Discharge: A Retrospective Descriptive Cohort Study. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586717742123>

Design Process

31. Lin, Y.-C., Chen, Y.-P., Yien, H.-W., Huang, C.-Y., & Su, Y.-C. (2018). Integrated BIM, game engine and VR technologies for healthcare design: A case study in cancer hospital. *Advanced Engineering Informatics*, 36, 130–145. <https://doi.org/10.1016/j.aei.2018.03.005>
32. Schaumann, D., Pilosof, N. P., Date, K., & Kalay, Y. E. (2016). A study of human behavior simulation in architectural design for healthcare facilities. *Annali Dell'Istituto Superiore Di Sanita*, 52(1), 24–32. https://doi.org/10.4415/ANN_16_01_07

Other

33. Blennerhassett, J. M., Borschmann, K. N., Lipson-Smith, R. A., & Bernhardt, J. (2018). Behavioral Mapping of Patient Activity to Explore the Built Environment During Rehabilitation. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718758444>
34. Bonuel, N. (2017). Acuity-adaptable patient room from the patient's perspective. *Journal of Nursing Education and Practice*, 8(5), 38. <https://doi.org/10.5430/jnep.v8n5p38>
35. Dell'Ovo, M., Capolongo, S., & Oppio, A. (2018). Combining spatial analysis with MCDA for the siting of healthcare facilities. *Land Use Policy*, in press. <https://doi.org/10.1016/j.landusepol.2018.02.044>
36. Denham, M. E., Bushehri, Y., & Lim, L. (2018). Through the Eyes of the User: Evaluating Neonatal Intensive Care Unit Design. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718761017>
37. Dwaikata, L. N., & Ali, K. N. (2018). Green Buildings Life Cycle Cost Analysis and Life Cycle Budget Development: Practical Applications. *Journal of Building Engineering*, in press. <https://doi.org/10.1016/j.jobe.2018.03.015>



38. García-Sanz-Calcedo, J., Al-Kassir, A., & Yusaf, T. (2018). Economic and Environmental Impact of Energy Saving in Healthcare Buildings. *Applied Sciences*, 8(3), 440. <https://doi.org/10.3390/app8030440>
39. Jain, R., & Rao, B. (2018). Health care facility vulnerability in developing nations: strengthening health care policy-making and implementation. *Journal of Public Health*, in press. <https://doi.org/10.1007/s10389-018-0911-y>
40. Jiang, S. (2014). Therapeutic landscapes and healing gardens: A review of Chinese literature in relation to the studies in western countries. *Frontiers of Architectural Research*, 3(2), 141–153. <https://doi.org/10.1016/j.foar.2013.12.002>
41. Jones, J. K. (2018). A Phenomenological Study of the Office Environments of Clinical Social Workers. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718755477>
42. Mangkuto, R. A., Wang, S., Aries, M. B. C., van Loenen, E. J., & Hensen, J. L. M. (2014). Comparison between lighting performance of a virtual natural lighting solutions prototype and a real window based on computer simulation. *Frontiers of Architectural Research*, 3(4), 398–412. <https://doi.org/10.1016/j.foar.2014.07.001>
43. Pati, D., Lee, J., Mihandoust, S., Kazem-Zadeh, M., & Oh, Y. (2018). Top Five Physical Design Factors Contributing to Fall Initiation. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718763798>
44. Real, K., Fay, L., Isaacs, K., CarlI-White, A., & Schadler, A. (2018). Using Systems Theory to Examine Patient and Nurse Structures, Processes, and Outcomes in Centralized and Decentralized Units. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718763794>
45. Rodriguez-Labajos, L., Thomson, C. S., & O'Brien, G. (2018). Performance measurement for the strategic management of healthcare estates. *Journal of Facilities Management*, in press. <https://doi.org/10.1108/JFM-10-2017-0052>
46. Tinner, M., Crovella, P., & Rosenbaum, P. F. (2018). Perceived Importance of Wellness Features at a Cancer Center: Patient and Staff Perspectives. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718758446>
47. Wang, Z., & Pukszta, M. (2018). Private Rooms, Semi-Open Areas, or Open Areas for Chemotherapy Care: Perspectives of Cancer Patients, Families, and Nursing Staff. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718758445>