



RESEARCH IN A SNAP

OVERVIEW

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

The Knowledge Repository is a collaborative effort with our partners

Academy of
Architecture for Health

an AIA Knowledge Community



Design for Aging

an AIA Knowledge Community



Additional key point summaries provided by



RESEARCH DESIGN
CONNECTIONS

Knowledge Repository News

The past two months brings you nearly 80 more entries into the Knowledge Repository spanning a range of topics. While one new entry in the Knowledge Repository is not specifically related to healthcare design or even the built environment, we found it to be especially pertinent to how we think about evaluating healthcare settings – most notably a discussion about a complexity-informed approach. This is an open access study, so just click on the DOI, and it will take you there!

Greenhalgh, T., & Papoutsis, C. (2018). Studying complexity in health services research: Desperately seeking an overdue paradigm shift. *BMC Medicine*, 16(1), 95. <https://doi.org/10.1186/s12916-018-1089-4>

(Papers published ahead of print “in press” will be updated as volume and page information becomes available.)

September-October 2018

Experience

Perceived Quality of Care (Noise, Communication, Waiting)

1. Anåker, A., von Koch, L., Heylighen, A., & Elf, M. (2018). “It’s Lonely”: Patients’ Experiences of the Physical Environment at a Newly Built Stroke Unit. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718806696>
2. Garside, J., Stephenson, J., Curtis, H., Morrell, M., Dearnley, C., & Astin, F. (2018). Are noise reduction interventions effective in adult ward settings? A systematic review and meta analysis. *Applied Nursing Research*, 44, 6–17. <https://doi.org/10.1016/j.apnr.2018.08.004>
3. Kitchens, J. L., Fulton, J. S., & Maze, L. (2018). Patient and family description of receiving care in acuity adaptable care model. *Journal of Nursing Management*, in press. <https://doi.org/10.1111/jonm.12618>
4. Naccarella, L., Raggatt, M., & Redley, B. (2018). The Influence of Spatial Design on Team Communication in Hospital Emergency Departments. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718800481>
5. Simons, K. S., Verweij, E., Lemmens, P. M. C., Jelfs, S., Park, M., Spronk, P. E., ... de Jager, C. P. C. (2018). Noise in the intensive care unit and its influence on sleep quality: a multicenter observational study in Dutch intensive care units. *Critical Care*, 22(1), 1–8. <https://doi.org/10.1186/s13054-018-2182-y>



6. Weldon, S.-M., Korkiakangas, T., Bezemer, J., & Kneebone, R. (2015). Music and communication in the operating theatre. *Journal of Advanced Nursing*, 71(12), 2763–2774. <https://doi.org/10.1111/jan.12744>
7. Zamani, Z. (2018). Effects of Emergency Department Physical Design Elements on Security, Wayfinding, Visibility, Privacy, and Efficiency and Its Implications on Staff Satisfaction and Performance. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718800482>

Supportive Design (e.g., Social Support, Positive Distractions)

8. Blaschke, S. (2017). The role of nature in cancer patients' lives: a systematic review and qualitative meta-synthesis. *BMC Cancer*, 17(1), 370. <https://doi.org/10.1186/s12885-017-3366-6>
9. Blaschke, S., O'Callaghan, C. C., & Schofield, P. (2017). Nature-based care opportunities and barriers in oncology contexts: a modified international e-Delphi survey. *BMJ Open*, 7(10), 1–11. <https://doi.org/10.1136/bmjopen-2017-017456>
10. Blaschke, S., O'Callaghan, C. C., & Schofield, P. (2018). Nature-based supportive care opportunities: A conceptual framework. *BMJ Supportive & Palliative Care*, in press. <https://doi.org/10.1136/bmjspcare-2017-001465>
11. Chang, K., & Chien, H. (2017). The Influences of Landscape Features on Visitation of Hospital Green Spaces—A Choice Experiment Approach. *International Journal of Environmental Research and Public Health*, 14(7), 724. <https://doi.org/10.3390/ijerph14070724>
12. Curtis, S., Gesler, W., Fabian, K., Francis, S., & Priebe, S. (2007). Therapeutic Landscapes in Hospital Design: A Qualitative Assessment by Staff and Service Users of the Design of a New Mental Health Inpatient Unit. *Environment and Planning C: Government and Policy*, 25(4), 591–610. <https://doi.org/10.1068/c1312r>
13. Emami, E., Amini, R., & Motalebi, G. (2018). The effect of nature as positive distractibility on the Healing Process of Patients with cancer in therapeutic settings. *Complementary Therapies in Clinical Practice*, 32, 70–73. <https://doi.org/10.1016/j.ctcp.2018.05.005>
14. Nejati, A., Rodiek, S., & Shepley, M. (2016). Using visual simulation to evaluate restorative qualities of access to nature in hospital staff break areas. *Landscape and Urban Planning*, 148, 132–138. <https://doi.org/10.1016/j.landurbplan.2015.12.012>
15. Paraskevopoulou, A. T., & Kamperi, E. (2018). Design of hospital healing gardens linked to pre- or post-occupancy research findings. *Frontiers of Architectural Research*, in press. <https://doi.org/10.1016/j.foar.2018.05.004>
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17. Park, S.-H., & Mattson, R. H. (2008). Effects of Flowering and Foliage Plants in Hospital Rooms on Patients Recovering from Abdominal Surgery. *HortTechnology*, 18(4), 563–568.
18. Park, S.-H., & Mattson, R. H. (2009). Therapeutic Influences of Plants in Hospital Rooms on Surgical Recovery. *HortScience*, 44(1), 102–105.
19. Pearson, M., Gaines, K., Pati, D., Colwell, M., Motheral, L., & Adams, N. G. (2018). The Physiological Impact of Window Murals on Pediatric Patients. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718800483>
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21. Tang, I.-C., Tsai, Y.-P., Lin, Y.-J., Chen, J.-H., Hsieh, C.-H., Hung, S.-H., ... Chang, C.-Y. (2017). Using functional Magnetic Resonance Imaging (fMRI) to analyze brain region activity when viewing landscapes. *Landscape and Urban Planning*, 162, 137–144. <https://doi.org/10.1016/j.landurbplan.2017.02.007>
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Indoor Environmental Quality (e.g., Temperature, Air, Light)

23. Nimlyat, P. S. (2018). Indoor environmental quality performance and occupants' satisfaction [IEQPOS] as assessment criteria for green healthcare building rating. *Building and Environment*, 144, 598–610. <https://doi.org/10.1016/j.buildenv.2018.09.003>
24. Sadek, A. H., & Mahrous, R. (2018). Adaptive glazing technologies: Balancing the benefits of outdoor views in healthcare environments. *Solar Energy*, 174, 719–727. <https://doi.org/10.1016/j.solener.2018.09.032>

Design & Evaluation (e.g., Process, Methods)

25. Afkhamiaghda, M., Mahdavi Parsa, A., Afsari, K., & McCuen, T. (2019). Occupants Behavior-Based Design Study Using BIM-GIS Integration: An Alternative Design Approach for Architects. In I. Mutis & T. Hartmann (Eds.), *Advances in Informatics and Computing in Civil and Construction Engineering* (pp. 765–772). Chicago, IL: Springer International Publishing.
26. Cai, H., & Jia, J. (2018). Using Discrete Event Simulation (DES) To Support Performance-Driven Healthcare Design. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718801910>
27. Eilouti, B. (2018). Scenario-based design: New applications in metamorphic architecture. *Frontiers of Architectural Research*, in press. <https://doi.org/10.1016/j.foar.2018.07.003>



28. Han, J., Kang, H.-J., & Kwon, G. H. (2018). A measurement for evaluating the environmental quality of advanced healthcare facilities: Intelligent healthscape quality for medical staff. *Building and Environment*, 144, 532–541. <https://doi.org/10.1016/j.buildenv.2018.08.023>
29. Jellema, P., Annemans, M., & Heylighen, A. (2018). Researching and Designing Health Care Environments: A Systematized Review of Creative Research Methods. *Qualitative Health Research*, in press. <https://doi.org/10.1177/1049732318792227>
30. Pasini, M., Berto, R., Brondino, M., Hall, R., & Ortner, C. (2014). How to Measure the Restorative Quality of Environments: The PRS-11. In *Procedia - Social and Behavioral Sciences* (Vol. 159, pp. 293–297). Dubrovnik, Croatia. <https://doi.org/10.1016/j.sbspro.2014.12.375>
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32. Wingler, D., Machry, H., Bayramzadeh, S., Joseph, A., & Allison, D. (2018). Comparing the Effectiveness of Four Different Design Media in Communicating Desired Performance Outcomes With Clinical End Users. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718796626>

Safety

33. Leaf, D. E., Homel, P., & Factor, P. H. (2010). Relationship Between ICU Design and Mortality. *Chest*, 137(5), 1022–1027. <https://doi.org/10.1378/chest.09-1458>

Infection Prevention/Control

34. Ahmed, H. A., & Alkali, I. Y. (2018). Isolation and antibiotic susceptibility test of bacteria from healthcare workers and hospital environment. *GSC Biological and Pharmaceutical Sciences*, 4(1), 44–47. <https://doi.org/10.30574/gscbps.2018.4.1.0047>
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Patient Handling/Mobility

44. Dutta, S., Jain, K., & Siddharth, V. (2018). Retrofitting Healthcare Facilities for Bariatric Patients: A Cost Analysis Study in a Public Sector Hospital of a Developing Country. *Bariatric Surgical Practice and Patient Care*, in press. <https://doi.org/10.1089/bari.2018.0032>
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Security

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50. Morphet, J., Griffiths, D., Beattie, J., Velasquez Reyes, D., & Innes, K. (2018). Prevention and management of occupational violence and aggression in healthcare: A scoping review. *Collegian*. <https://doi.org/10.1016/j.colegn.2018.04.003>

Injury of Behavioral Health

51. Brown, J., Fawzi, W., McCarthy, C., Stevenson, C., Kwesi, S., Joyce, M., ... Shah, A. (2015). Safer Wards: reducing violence on older people's mental health wards. *BMJ Quality Improvement Reports*, 4(1), eCollection. <https://doi.org/10.1136/bmjquality.u207447.w2977>
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Care across the Lifespan

Mother-Baby/Neonates

54. Folmer, M. B., Jangaard, K., & Buhl, H. (2018). Design of Genuine Birth Environment: Midwives Intuitively Think in Terms of Evidence-Based Design Thinking. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718796654>
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Pediatrics



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Elders/Aging

60. Abbott, K. M., Heid, A. R., Kleban, M., Rovine, M. J., & Van Haitsma, K. (2018). The Change in Nursing Home Residents' Preferences Over Time. *Journal of the American Medical Directors Association*, in press. <https://doi.org/10.1016/j.jamda.2018.08.004>
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62. Carver, A., Lorenzon, A., Veitch, J., Macleod, A., & Sugiyama, T. (2018). Is greenery associated with mental health among residents of aged care facilities? A systematic search and narrative review. *Aging & Mental Health*, in press.
63. McCusker, J., Vu, T. T. M., Veillette, N., Cossette, S., Vadeboncoeur, A., Ciampi, A., ... Belzile, E. (2018). Elder-Friendly Emergency Department: Development and Validation of a Quality Assessment Tool. *Journal of the American Geriatrics Society*, 66(2), 394–400. <https://doi.org/10.1111/jgs.15137>
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65. Van Steenwinkel, I., Dierckx de Casterlé, B., & Heylighen, A. (2017). How architectural design affords experiences of freedom in residential care for older people. *Journal of Aging Studies*, 41, 84–92. <https://doi.org/10.1016/j.jaging.2017.05.001>

Dementia

66. Van Hecke, L., Van Steenwinkel, I., & Heylighen, A. (2018). How Enclosure and Spatial Organization Affect Residents' Use and Experience of a Dementia Special Care Unit: A Case Study. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/1937586718796614>

Aging in Place/Healthcare at Home

67. Gadakari, T., Wang, J., & Hadjri, K. (2018). Designing Residential Buildings for Older People in China to Promote Ageing-in-place. *Asian Journal of Quality of Life*, 3(13), 18–28. <https://doi.org/10.21834/ajqol.v3i13.158>



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Therapeutic Environments: Behavioral/Mental Health

69. Holmqvist, K. L., & Holmefur, M. (2018). The ADL taxonomy for persons with mental disorders – adaptation and evaluation. *Scandinavian Journal of Occupational Therapy*, in press. <https://doi.org/10.1080/11038128.2018.1469667>

Drug Addiction

70. Bailly, J., Taïeb, O., Moro, M. R., Baubet, T., & Reyre, A. (2018). “If walls could talk”: A photo-elicitation-based observation of service users’ perceptions of the care setting and of its influence on the therapeutic alliance in addiction treatment. *Health & Place*, 54, 69–78. <https://doi.org/10.1016/j.healthplace.2018.09.007>

Psychiatric Facilities

71. Alexiou, E., Wijk, H., Ahlquist, G., Kullgren, A., & Degl’ Innocenti, A. (2018). Sustainability of a person-centered ward atmosphere and possibility to provide person-centered forensic psychiatric care after facility relocation. *Journal of Forensic and Legal Medicine*, 56, 108–113. <https://doi.org/10.1016/j.jflm.2018.04.006>
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Technology

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74. Shunk, K. A., Zimmet, J., Cason, B., Speiser, B., & Tseng, E. E. (2015). Development of a Veterans Affairs Hybrid Operating Room for Transcatheter Aortic Valve Replacement in the Cardiac Catheterization Laboratory. *JAMA Surgery*, 150(3), 216–222. <https://doi.org/10.1001/jamasurg.2014.1404>

Other

75. Fronczek-Munter, A., & Prugsiganont, S. (2018). Hospital architecture quality-exploratory observation on three continents (p. 17). Presented at the International Conference on Architecture & Built Environment, Venice, Italy.



76. Teran-Somohano, A., & Smith, A. E. (2018). A Space Syntax Analysis of the Relationship between Function and Form in Facility Layout. In *15th IMHRC Proceedings* (p. 8). Savannah, Georgia: Georgia Southern University Digital Commons.
77. Wanigarathna, N., Sherratt, F., Price, A. D. F., & Austin, S. A. (2019). Design reuse: Critical application of healthcare building design evidence. *Engineering, Construction and Architectural Management*, in press.
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