

RESEARCH IN A SNAP

OVERVIEW

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

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Knowledge Repository News

Welcome to the first Research in a Snap of 2017! We've recently added 41 new citations. (Published ahead of print "in press" and will be updated as volume and page information becomes available.) In addition to a healthy number of safety-related papers, the latest additions include eight citations from forthcoming special issues of the Journal of Interior Design (JID) focused solely on healthcare design. The special issues are a result of a call for papers extended by Cornell University professors Sheila Danko, LEED AP and Mardelle Shepley, D.Arch., FAIA, FACHA, EDAC, LEED AP. A paper by Quan, Joseph, & Nanda (2017) features work completed at The Center for Health Design through a grant from the ASID Foundation. The referenced tool is available on The Center's website (https://www.healthdesign.org/insights-solutions/patient-room-design-checklist-and-evaluation-tool). Two invited perspective papers are also featured in these special issues:

Nanda, U. (2017). A Sensthetic Approach to Designing for Health. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12098

Taylor, E. (2017). The Healthcare Workplace: More than a New "Old" Hospital. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12093

January-February 2017

Interior Design (Including the JID Special Issue)

- 1. Clapton, G., & Reid, L. (2017). Neglected spaces: UK general practice surgery waiting rooms. BJGP Open, 1–11. https://doi.org/10.3399/bjgpopen17X100641
- 2. Harris, D. (2017). A Material World: A Comparative Study of Flooring Material Influence on Patient Safety, Satisfaction, and Quality of Care. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12100
- 3. Joseph, A., Wingler, D., & Zamani, Z. (2017). Balancing the Human Touch with the Need for Integrating Technology in Ambulatory Surgical Environments: Barriers and Facilitators to Nursing Work and Care Team Interactions. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12089



- 4. Lachance, C. C., Jurkowski, M. P., Dymarz, A. C., Robinovitch, S. N., Feldman, F., Laing, A. C., & Mackey, D. C. (2017). Compliant flooring to prevent fall-related injuries in older adults: A scoping review of biomechanical efficacy, clinical effectiveness, cost-effectiveness, and workplace safety. PLoS ONE, 12(2), 1–23. https://doi.org/10.1371/journal.pone.0171652
- 5. Mobley, C., Leigh, K., & Malinin, L. (2017). Examining Relationships between Physical Environments and Behaviors of Residents with Dementia in a Retrofit Special Care Unit. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12094
- 6. Platt, L. S., Bosch, S. J., & Kim, D. (2017). Toward a Framework for Designing Person-Centered Mental Health Interiors for Veterans. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12095
- 7. Quan, X., Joseph, A., & Nanda, U. (2017). Developing Evidence-based Tools for Designing and Evaluating Hospital Inpatient Rooms. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12091
- 8. Wang, Z., & Pukszta, M. (2017). Patient Needs and Environments for Cancer Infusion Treatment. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12096
- Weinberger, N., Butler, A. G., Schumacher, P. A., Brown, R. L., & McGee, B. (2017). Child Life Specialists' Evaluation of Hospital Playroom Design: A Mixed Method Inquiry. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12097
- 10. Zuo, Q., & MaloneBeach, E. E. (2017). Assessing Staff Satisfaction with Indoor Environmental Quality in Assisted Living Facilities. Journal of Interior Design, (in press). https://doi.org/10.1111/joid.12092

Safety

- 11. Bischoff, P., Kubilay, N. Z., Allegranzi, B., Egger, M., & Gastmeier, P. (2017). Effect of laminar airflow ventilation on surgical site infections: a systematic review and meta-analysis. The Lancet Infectious Diseases, in press. https://doi.org/10.1016/S1473-3099(17)30059-2
- 12. Yang, Y., Lai, A. C. K., & Wu, C. (2016). Study on the disinfection efficiency of multiple upper-room ultraviolet germicidal fixtures system on airborne microorganisms. Building and Environment, 103, 99–110. https://doi.org/10.1016/j.buildenv.2016.04.004
- 13. Hinsa-Leasure, S. M., Nartey, Q., Vaverka, J., & Schmidt, M. G. (2016). Copper alloy surfaces sustain terminal cleaning levels in a rural hospital. American Journal of Infection Control, 44(11), e195–e203. https://doi.org/10.1016/j.ajic.2016.06.033
- 14. Inoue, K., Kawanishi, C., Otsuka, K., Cho, Y., Shiraishi, M., Ishii, T., ... Hirayasu, Y. (2017). A large-scale survey of inpatient suicides: comparison between medical and psychiatric settings. Psychiatry Research, 250, 155–158. https://doi.org/10.1016/j.psychres.2017.01.076



- 15. Janke, C., Heim, K. M., Steiner, F., Massaquoi, M., Gbanya, M. Z., Frey, C., & Froeschl, G. (2017). Beyond Ebola treatment units: severe infection temporary treatment units as an essential element of Ebola case management during an outbreak. BMC Infectious Diseases, 17(1), 124. https://doi.org/10.1186/s12879-017-2235-x
- 16. Lateef, F. (2009). Hospital design for better infection control. Journal of Emergencies, Trauma, and Shock, 2(3), 175. https://doi.org/10.4103/0974-2700.55329
- 17. Pati, D., Valipoor, S., Cloutier, A., Yang, J., Freier, P., Harvey, T. E., & Lee, J. (2017). Physical Design Factors Contributing to Patient Falls. Journal of Patient Safety, (in press). https://doi.org/10.1097/PTS.000000000000339
- 18. Sommerstein, R., Jenni, H., Carrel, T., & Marschall, J. (2016). Cardiac surgery, nosocomial infection, and the built environment. The Journal of Hospital Infection, 93(3), 240–241. https://doi.org/10.1016/j.jhin.2016.03.026

Design Process

- Cunningham, C. E., Niccols, A., Rimas, H., Robicheau, R., Anderson, C., & DeVries, B. (2017). Using a Discrete Choice Conjoint Experiment to Engage Stakeholders in the Design of an Outpatient Children's Health Center. HERD: Health Environments Research & Design Journal, (in press), 1–16. https://doi.org/10.1177/1937586716686350
- 20. Elf, M., Nordin, S., Wijk, H., & McKee, K. J. (2017). A systematic review of the psychometric properties of instruments for assessing the quality of the physical environment in healthcare. Journal of Advanced Nursing, in press. https://doi.org/10.1111/jan.13281 Cummins, M., & Ready, D. (2016). Role of the Hospital Environment in Norovirus Containment. Journal of Infectious Diseases, 213(suppl 1), S12–S14. https://doi.org/10.1093/infdis/jiv529
- 21. Grey, T., Kennelly, S., de Freine, P., Mahon, S., Mannion, V., & O'Neill, D. (2017). Towards a building typology and terminology for Irish hospitals. Irish Journal of Medical Science, (in press). https://doi.org/10.1007/s11845-016-1537-0
- 22. Heylighen, A., Van der Linden, V., & Van Steenwinkel, I. (2016). Ten questions concerning inclusive design of the built environment. Building and Environment, in press. https://doi.org/10.1016/j.buildenv.2016.12.008
- 23. Kpamma, Z. E., Adjei-Kumi, T., Ayarkwa, J., & Adinyira, E. (2017). Participatory design, wicked problems, choosing by advantages. Engineering, Construction and Architectural Management, (in press). https://doi.org/10.1108/ECAM-06-2015-0085
- 24. Mackrill, J., Marshall, P., Payne, S. R., Dimitrokali, E., & Cain, R. (2017). Using a bespoke situated digital kiosk to encourage user participation in healthcare environment design. Applied Ergonomics, 59, Part A, 342–356. https://doi.org/10.1016/j.apergo.2016.08.005



Special Populations (e.g., Elders, Neonates, Mental Health)

- 25. Aburas, R., Pati, D., Casanova, R., & Adams, N. G. (2017). The Influence of Nature Stimulus in Enhancing the Birth Experience. HERD: Health Environments Research & Design Journal, 10(2), 81–100. https://doi.org/10.1177/1937586716665581
- Barton, S. A., & White, R. D. (2016). Advancing NICU Care with a New Multipurpose Room Concept. Special Issues on NICU Design and Infant Mental Health in the Intensive Care Unit and Beyond, 16(4), 222–224. https://doi.org/10.1053/j.nainr.2016.09.010
- 27. Chong, Y. E., Shukor, A., & Faris, S. (2016). Healing gardens for the elderly: a review of design guidelines and the comparisons with the existing Senior Outdoor Survey (SOS) tool. ALAM CIPTA, International Journal on Sustainable Tropical Design Research & Practice, 9(2), 19–25.
- 28. Eldaly, K., Zaki, N., & El-Gizawi, L. (2016). The Associations between Daylight Sufficiency in Hospital Wards and Patient Satisfaction with Mental Healthcare Services: An Egyptian Sample. Acta Medica International, 3(2), 101–111. https://doi.org/10.5530/ami.2016.2.22
- 29. Kalantari, S., & Snell, R. (2017). Post-Occupancy Evaluation of a Mental Healthcare Facility Based on Staff Perceptions of Design Innovations. HERD: Health Environments Research & Design Journal, (in press). https://doi.org/10.1177/1937586716687714
- Nordin, S., McKee, K., Wijk, H., & Elf, M. (2017). Exploring Environmental Variation in Residential Care Facilities for Older People. HERD: Health Environments Research & Design Journal, 10(2), 49–65. https://doi.org/10.1177/1937586716648703
- 31. Shepley, M. M., Watson, A., Pitts, F., Garrity, A., Spelman, E., Fronsman, A., & Kelkar, J. (2017). Mental and behavioral health settings: Importance & effectiveness of environmental qualities & perceived by staff. Journal of Environmental Psychology, 50(June), 37–50. https://doi.org/10.1016/j.jenvp.2017.01.005
- 32. Trujillo, J. L.-H., Aviñó, A. M., & Millán, C. L. (2017). User Evaluation of Neonatology Ward Design: An Application of Focus Group and Semantic Differential. HERD: Health Environments Research & Design Journal, 10(2), 23–48. https://doi.org/10.1177/1937586716641275

Other

- Ahmadi-Javid, A., Seyedi, P., & Syam, S. S. (2017). A survey of healthcare facility location. Computers & Operations Research, 79, 223–263. https://doi.org/10.1016/j.cor.2016.05.018
- 34. Downes, M. A., Balshaw, J. K., Muscat, T. M., Ritchie, N., & Isbister, G. K. (2017). Impact of an emergency short stay unit on emergency department performance of poisoned patients. The American Journal of Emergency Medicine, (In press). https://doi.org/10.1016/j.ajem.2017.01.027



- 35. Fay, L., Carll-White, A., & Harrell, J. (2016). Coming Full Cycle: Linking POE Findings to Design Application. HERD: Health Environments Research & Design Journal, (in press), 1–16. https://doi.org/10.1177/1937586716672856
- 36. Jiang, S., & Verderber, S. (2017). On the Planning and Design of Hospital Circulation Zones: A Review of the Evidence-Based Literature. HERD: Health Environments Research & Design Journal, 10(2), 124–146. https://doi.org/10.1177/1937586716672041
- 37. Loomans, M. G. L. C., de Visser, I. M., Loogman, J. G. H., & Kort, H. S. M. (2016). Alternative ventilation system for operating theaters: Parameter study and full-scale assessment of the performance of a local ventilation system. Building and Environment, 102, 26–38. https://doi.org/10.1016/j.buildenv.2016.03.012
- 38. Pantzartzis, E., Edum-Fotwe, F. T., & Price, A. D. F. (2017). Sustainable healthcare facilities: Reconciling bed capacity and local needs. International Journal of Sustainable Built Environment, (in press). https://doi.org/10.1016/j.ijsbe.2017.01.003
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- Vahdatzad, V., & Griffin, J. (2016). Outpatient clinic layout design accounting for flexible policies. In Winter Simulation Conference (WSC), 2016 (pp. 3668–3669). Washington, D.C.: IEEE. Retrieved from http://ieeexplore.ieee.org/abstract/document/7822391/
- 41. Watson, K. J., Evans, J., Karvonen, A., & Whitley, T. (2016). Capturing the social value of buildings: The promise of Social Return on Investment (SROI). Building and Environment, 103, 289–301. https://doi.org/10.1016/j.buildenv.2016.04.007