



RESEARCH IN A SNAP

OVERVIEW

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

Knowledge Repository News

Among the 34 new entries in the Knowledge Repository, several papers focus on the healthcare work environment with a specific focus on noise. See the citations listed in the "Experience: Work Environment" category below.

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

November - December 2023

Experience

Work Environment

1. Abbasi, H., Ziaei, M., Salimi, K., Zare, S., Jokar, M., & Rashidi, N. (2023). Noise pollution, annoyance, and sensitivity; Its impact on general health and aggression of hospital staffs. *Current Psychology*, in press. <https://doi.org/10.1007/s12144-023-05434-y>
2. Bayramzadeh, S., & Ahmadvpour, S. (2023). The impact of sensory stimuli on healthcare workers and outcomes in trauma rooms: A focus group study. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231215080>
3. Das, A., & Kishore, J. (2023). Noise levels and annoyance among staff in a tertiary care hospital in North India: A cross-sectional study. *Archives of Environmental & Occupational Health*, 1-12. <https://doi.org/10.1080/19338244.2023.2286388>
4. Khoojine, N. S., Kasalı, A., & Erkiılıç-Bayar, M. (2023). Accessibility in intensive care units: A qualitative study on exploring architects perspective. *ITU Press, Press of the Istanbul Technical University*, 20(3), 547-564. <https://doi.org/10.58278/0.2023.24>

Supportive Design (Social Support, Distractions, Nature, etc.)

5. Carroll, C., Higgs, J., McCray, S., & Utter, J. (2023). Implementation and impact of health care gardens: A systematic scoping review. *Journal of Integrative and Complementary Medicine*, in press. <https://doi.org/10.1089/jicm.2023.0212>
6. Frishkopf, M. (2023). Autonomously adaptive soundscapes for stress reduction in the intensive care unit and beyond. *AIP Conference Proceedings*, 2909(1), 110001. <https://doi.org/10.1063/5.0182120>

The Knowledge Repository is a collaborative effort between The Center for Health Design and our partners

Academy of Architecture for Health

AIA Knowledge Community



Additional key point summaries provided by





7. Gong, Y., & Kim, E. J. (2023). Correlation between neighborhood built environment and leisure walking time around a riverside park. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231213338>
8. Huber, A., & Bailey, R. (2024). Designing worthy waiting spaces: A cross-cultural study of waiting room features and their impact on women's affective states. *HERD: Health Environments Research & Design Journal*, 17(1), 112–126. <https://doi.org/10.1177/19375867231204979>
9. Tronstad, O., Flaws, D., Patterson, S., Holdsworth, R., & Fraser, J. F. (2023). Creating the ICU of the future: Patient-centred design to optimise recovery. *Critical Care*, 27, in press. <https://doi.org/10.1186/s13054-023-04685-2>
10. Xuan, X., Duan, X., Feng, Z., & Zheng, Y. (2023). Differences in nurses' satisfaction and demand for spatial design among different departments of nursing units: A case study in China. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231213955>
11. Zumba, G. G., Zumba, J. G., & Zumba, H. G. (2023). The contribution of the physical space in the light of the medical team. *Human Factors in Architecture, Sustainable Urban Planning and Infrastructure*, 89, 147–156. <https://doi.org/10.54941/ahfe1003689>

Safety

12. Fassbinder, M., & Abernathy, J. H. (2024). Chapter 14—Redesigning the operating room for safety. In J. A. Sanchez, R. S. D. Higgins, & P. S. Kent (Eds.), *Handbook of Perioperative and Procedural Patient Safety* (pp. 231–244). Elsevier.

Infection Prevention/Control

13. Nourozi, B., Wierzbicka, A., Yao, R., & Sadrizadeh, S. (2024). A systematic review of ventilation solutions for hospital wards: Addressing cross-infection and patient safety. *Building and Environment*, 247, in press. <https://doi.org/10.1016/j.buildenv.2023.110954>
14. Scanlon, M. M., Gordon, J. L., & Reynolds, K. A. (2023). Building water quality commissioning in healthcare settings: Reducing Legionella and water contaminants utilizing a construction scheduling method. *Buildings*, 13(10), in press. <https://doi.org/10.3390/buildings13102533>

Care across the Lifespan

15. Burger, P., Van den Ende, E. S., Lukman, W., Burchell, G. L., Steur, L. M. H., Merten, H., Nanayakkara, P. W. B., & Gemke, R. (2022). Sleep in hospitalized pediatric and adult patients – A systematic review and meta-analysis. *Sleep Medicine*, in press. <https://doi.org/10.1016/j.sleepx.2022.100059>

Therapeutic Environments: Behavioral/Mental Health

16. Sarkar, A., & Niyogi, J. G. (2023). Considerations for mental healthcare facility design in Indian context. *Design for Health*, in press. <https://doi.org/10.1080/24735132.2023.2271714>



17. Canazei, M., Weninger, J., Pohl, W., Marksteiner, J., & Weiss, E. M. (2022). Effects of dynamic bedroom lighting on measures of sleep and circadian rest-activity rhythm in inpatients with major depressive disorder. *Scientific Reports*, 12(1), 6137. <https://doi.org/10.1038/s41598-022-10161-8>

Pediatric

18. Altimier, L., Barton, S. A., Bender, J., Browne, J., Harris, D., Jaeger, C. B., Johnson, B. H., Kenner, C., Kolberg, K. J. S., Loder, A., Martin, G. L., Mohammed, S., Oelrich, T., Wilson Orr, L., Philbin, M. K., Thompson, T. S., & White, R. D. (2023). Recommended standards for newborn ICU design. *Journal of Perinatology*, 43(1), Article 1. <https://doi.org/10.1038/s41372-023-01784-4>
19. Bakker, L., Jackson, B., & Miles, A. (2023). The impact of physical and environment factors on parental presence for oral feeding in New Zealand neonatal intensive care units. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231216517>
20. McLaughlan, R. (2023). Engaging young people in architectural research: Three visual methods for understanding the impact of the built environment on children's wellbeing. *Visual Studies*, 1–14. <https://doi.org/10.1080/1472586X.2023.2284984>

Labor & Delivery

21. Goldkuhl, L., Tistad, M., Gyllensten, H., & Berg, M. (2023). Implementing a new birthing room design: A qualitative study with a care provider perspective. *BMC Health Services Research*, 23(1122), in press. <https://doi.org/10.1186/s12913-023-10051-3>

Elders/Aging

22. Yuan, H., & Shen, X. (2023). Optimizing floor plans of accessible restrooms in elderly long-term care facilities: A path planning approach. *Architectural Engineering and Design Management*, in press. <https://doi.org/10.1080/17452007.2023.2272618>
23. Abushousheh, A., Taylor, E., & Brondino, M. J. (2023). An auditory sonic sleep treatment for individuals living with dementia in a memory care setting: A quality improvement program evaluation. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231207651>

Building Systems & Technology

24. Abbasi, A., Saberi, V., Eghbali, H., & Saberi, H. (2023). Views from construction professionals on hospital project construction management using modular prefabricated materials and building information modeling support. *Architecture, Structures and Construction*, in press. <https://doi.org/10.1007/s44150-023-00107-7>
25. Almhafdy, A., & Alsehail, A. M. (2023). The effect of window design factors on the cooling load in hospitals wards. *Smart and Sustainable Built Environment*, in press. <https://doi.org/10.1108/SASBE-07-2023-0195>



26. Botejara-Antúnez, M., González-Domínguez, J., Sánchez-Barroso, G., & García-Sanz-Calcedo, J. (2023). Optimal selection of false ceiling systems in healthcare buildings: A multidimensional hierarchical analysis for sustainability. *Architectural Engineering and Design Management*, in press. <https://doi.org/10.1080/17452007.2023.2291586>
27. Jamshidi, S., & Pati, D. (2023). Identifying environmental elements and attributes that contribute to indoor wayfinding: An exploratory study utilizing think-aloud protocol. *Journal of Interior Design*, in press. <https://doi.org/10.1177/10717641231207031>
28. Satheesan, M. K., Tsang, T.-W., Mui, K.-W., & Wong, L.-T. (2023). Optimal ventilation strategy for multi-bed hospital inpatient wards: CFD simulations using a genetic algorithm. *Indoor and Built Environment*, in press. <https://doi.org/10.1177/1420326X231205139>

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

29. Christianson, C. D., Baylis, J. B., Komisar, V., & Brinkerhoff, J. (2023). Quantifying ventilation design, room layout, and occupant activity parameters during aerosol-generating medical procedures in hospitals. *Indoor Air*, in press. <https://doi.org/10.1155/2023/6641824>
30. Gong, P., Cai, Y., Chen, B., Zhang, C., Stravoravdis, S., Sharples, S., Ban, Q., & Yu, Y. (2023). An artificial neural network-based model that can predict inpatients' personal thermal sensation in rehabilitation wards. *Journal of Building Engineering*, 80, in press. <https://doi.org/10.1016/j.jobe.2023.108033>
31. Houssaini, M. S., Aboutajeddine, A., & Toughrai, I. (2023). Development of a data-centric design thinking process for innovative care delivery. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231215071>
32. Soleimani, S., Molanaei, S., Khorshidi, B., Nedaei, C., & Ghamari, H. (2023). Investigating the conceptual model of child-nature interaction in architectural spaces using grounded theory. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231207846>

Other

33. Hampton, T., Everett, S., Goldsmith, E., & Lee, P. J. (2023). A challenge to the evidence behind noise guidelines for UK hospitals. *Occupational Medicine*, in press. <https://doi.org/10.1093/occmed/kqad109>
34. Pati, D., Sheykhmaleki, P., & Chilaka, D. A. U. (2023). Reimagining America's rural health: Challenges and opportunities. *HERD: Health Environments Research & Design Journal*, in press. <https://doi.org/10.1177/19375867231209501>