KEY POINT SUMMARY

OBJECTIVES

This study identified behaviors ED clinicians used to cope with work-related stress, where those behaviors occurred, and ways the built environment might support restorative behaviors.

Coping and caregiving: Leveraging environmental design to moderate stress among healthcare workers in the emergency department setting
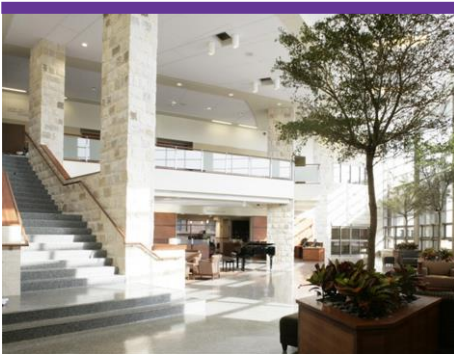
Key Concepts/Context

Research demonstrates that healthcare work is demanding and emergency departments (EDs) are known to be particularly stressful. There is a lack of information about relationships between the built environment and the behaviors clinicians use to cope with work-related stress. The results of this mixed-methods study provide important insights into ED stressors and inform design solutions that can help mitigate work-related stress.

Methods

Researchers used two freestanding EDs and one hospital-based ED for this study. They first recruited staff at each site to complete an online questionnaire that included items addressing demographics; work-related stress; circumstances preventing breaks; environmental attributes supporting coping behaviors; desired changes to the physical work environment that would help participants cope with work-related stress; perceptions of safety; perceptions of patient/family member access to clinician work areas; and environmental attributes that might compromise perceptions of safety. Researchers recruited interview participants using the online questionnaire and a staff meeting. Interview topics included demographics, job related stress, de-stressing behaviors, and participant descriptions of ideal places to de-stress. Analysis for the quantitative questionnaire data was primarily descriptive due to the small sample size. The qualitative analysis for the interview data was quite thorough. Two researchers first coded the interview data using a deductive approach guided by the study questionnaire and then coded the data a second time using an open-coding/inductive approach to identify a full complement of themes and any relevant patterns. Both phases of qualitative analysis

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incorporated interrater reliability checks to ensure consistency. The final four themes reported were reviewed and refined by the lead researcher and two coders.

Findings

There were 85 responses to the online questionnaire, with the majority of participants identifying as female (65%). Respondents included registered nurses (66%), attending physicians (13%), resident physicians (12%), nurse practitioners (5%), and physician assistants (4%). Most respondents were between 30-50 years of age (64%) and over half (60%) had more than four years of experience working in an ED. Almost half of respondents (43%) felt overworked, 36% indicated they were frequently exhausted or emotionally fatigued, and 38% expressed physical fatigue. A majority of respondents (83%) indicated work-related stress resulting from task interruptions, and 73% perceived the volume of work required during a shift to be stressful. Organizational policies were also considered stressful by some (65%), followed by patient family members' needs (63%), insufficient work space (54%), elevated noise levels (50%), and lack of visual and auditory privacy (40%).

Researchers conducted 20 individual interviews to supplement questionnaire data. Interviewees included registered nurses (8), attending physicians (4), resident physicians (6), and physician assistants (2). Researchers used content analysis to identify four overarching themes. The Culture of Acceptance theme included acknowledgement of short-staffing, the likelihood of feeling threatened at some point during their shift, and the lack of breaks. The Physician Centricity Versus Staff Integration theme refers to differing opinions about workspaces that exclude nurses but are dedicated to physicians, physician assistants, and nurse practitioners. The Privacy Please theme reflected the lack of visual, acoustic, and physical privacy for staff and how this can negatively impact staff stress levels and unit operations. Finally, the No Place of Refuge theme highlighted that even though many respondents didn't feel they could take a break, opportunities to momentarily step away from work demands are imperative, however, there is often no good space to do so.

Limitations

While this manuscript did not specifically delineate study limitations, all of the included EDs were from a single academic health system, which could limit generalizability of findings. Recommendations for future research included a larger sample for each of the clinical roles of interest and EDs of differing types and from a variety of organizations.

Design Implications

Participants suggested respite spaces that include visual and auditory privacy; located adjacent to or within the ED; offer noise control; lockable doors; and access

to and ability to control natural light. Some proposed having massage chairs available. Additionally, an outdoor place to get fresh air that is close to the ED was advised. Finally, places that foster individual composure and respite such as adequate bathroom facilities and places where coworkers can connect are important considerations.

And Also...

- Because 90% of respondents indicated they would be somewhat or extremely likely to de-stress by talking with a colleague, it may be important to ensure the built environment can accommodate sensitive conversations.

- This article presents a robust discussion section that incorporates references with detailed design recommendations that are beyond the scope of this summary.

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