

# REDUCING STRESS AND BURNOUT IN THE CLINICAL WORKPLACE

## Project Team:

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## Project Abstract:

The healthcare built environment has typically focused on patient outcomes and well-being. For example, particular variations in floor layout, lighting, and sound have been found to reduce patient stress and positively impact the quality of care. However, there is less research on the stress and burnout impact of the healthcare built environment on healthcare providers. The need to address and mitigate caregiver stress is more urgent than ever thanks to the COVID-19 pandemic and the strain it has placed on doctors and nurses.

Over the last 25 years, the formation of topics such as Evidence-Based Design (EBD) have greatly inspired the study of the impacts of the built environment on the design of healthcare settings. Yet there appears to be a gap in the research with regard to the impacts of the healthcare built environment and mitigating or reducing stress and burnout on healthcare providers in particular. Within the new reality of COVID-19, the immense strain placed on doctors and nurses has become readily apparent, with professionals facing incredible amounts of stress, burnout and turnover - which, in turn, ultimately affects the quality of care afforded to patients. This project seeks to investigate how the current design and layouts of healthcare settings provide systems and resources to help nurses and doctors with stress management and burnout, understand how it affects their workplace performance, as well as seek to understand if any additional built environment applications can help with this issue.

This study will work with a number of methodologies, including a literature review, case studies of stress reduction strategies and spaces in healthcare settings, and stakeholder interviews. The results of these methods will be utilized to further aid NBBJ's efforts in designing and implementing successful and adaptable healthcare environments that meet the needs of all of its occupants.

Keywords: Stress, burnout, nurse, Evidence-Based Design, COVID-19 pandemic, Staff performance, healthcare facility design, staff support spaces, break rooms, respite areas

**Statement of Interest:**

With the onslaught of the COVID-19 pandemic, it has been hard to miss the immense effect it has had on the healthcare system currently in place here in the U.S. - even more so with healthcare provider burnout and turnover. I have seen and heard countless news stories and articles about the overwhelmed doctors and a crippling nurse shortage that has made it extremely difficult to provide sustainable methods of care. With this project, I hope to dig a bit deeper into the experiences of some of these healthcare professionals and investigate if there is anything they would like to see differently in the spaces in which they work. I have a feeling that a lot of these issues may be inherently based on the established work culture within healthcare and medicine, but I also think that the built environment has a large role to play in potentially facilitating some positive and sustainable changes to the professions within healthcare.

**Research Proposal:**

The literature review will seek to understand the history of investigating ways to highlight and reduce factors that may cause stress in the healthcare built environment, as well as to understand the different types of methodologies applied to study these phenomena. This will also provide a background on the particular stakeholders usually targeted and studied, highlighting any gaps in stakeholder demographics. After this comprehensive literature review is completed, a few case studies of particular stress-reducing built environment applications for nurses and doctors will be highlighted and examined at length. Afterwards, stakeholder interviews will be conducted with nurses at selected healthcare facilities in order to get their experience in their workplace and ways that they utilize any stress-reduction spaces available to them, whether or not they have adequate access to such spaces, and what they would like to see in those kinds of spaces. The results of the literature review, case studies, and interviews will be compiled, interpreted, and analyzed to create a set of design recommendations and guidelines for NBBJ to incorporate into their design development and other design phases of their healthcare facility projects.

**Research Questions:**

- 1.) What systems & resources are currently in place to help health care providers manage and mitigate stress while on the job?
- 2.) What kinds of spaces are allocated to the self-care and resilience of doctors, nurses, and staff?
  - a.) What is the typical amount of time allocated for these activities while on the job?
- 3.) How much consideration is being given to the support spaces for healthcare providers and families of patients during the design and development of healthcare settings?
  - a.) What does this look like? What factors influence the design and resources provided in these spaces?
- 4.) How can we design healthcare facilities that provide ample spaces and resources for doctors and nurses to find moments of respite while on the job?
- 5.) Is it possible to incorporate specifically designated areas and spaces of respite for healthcare workers in existing healthcare facilities?
- 6.) What kind of impact do healthcare workers believe effectively designed spaces of respite can have on their work experience and performance?

## **Research Methods:**

- Literature Review:
  - The literature review will provide a glimpse into how factors in the healthcare built environment that may cause or reduce stress have been applied and studied. This will help identify gaps in the research that will provide a benchmark to build upon for the project.
- Case Studies:
  - A few case studies that begin to explore the more specific themes of the project will be examined at length - focusing primarily on the design, implementation, and use of areas and spaces of respite available to healthcare staff in the healthcare built environment. This will hopefully also involve firsthand field observations of the use of these kinds of spaces in real healthcare settings.
- Stakeholder Interviews:
  - Interviews with nurses and doctors from the selected healthcare facilities will seek to examine and highlight ways in which they use spaces like break rooms and other spaces during their allotted break times, whether or not they are providing adequate resources for respite and decompression, and if that is not the case, what types of elements they would like to have in the spaces available to them.

## **Project Breakdown:**

### **Dates: Winter 2021 - Fall 2022**

#### **Winter 2022:**

- Creation of Project Abstract, Establishing Faculty Advisors, Formation of Literature Review and Project Methodologies

#### **Spring 2022:**

- Establishment of a Comprehensive Literature Review, Case Study Development, Research Design

#### **Summer 2022:**

- Start of Methodological Investigations and Observations, Stakeholder Interviews, Data Collection & Transcription

#### **Autumn 2022**

- Data Analyzation, Comprehensive Report on all study findings, ARC Final Presentation, and Final Report for ARC, and design guidelines and recommendations for NBBJ

### **Deliverables:**

- Literature Review
- Project Synthesis
  - Analysis of Literature Review, Results of Case Studies, and Analysis of Stakeholder Interviews into a set of design guidelines for NBBJ (including recommendations for the incorporation of respite areas and resources in the design considerations of future healthcare built environments)