



DESIGN FOR HEALTHCARE HEROES

Addressing Staff Burnout and
Turnover Through Design

LITTLE CONDUCTED A LITERATURE REVIEW
TO GATHER EXISTING INFORMATION ABOUT:

- 1** The impact of the COVID-19 pandemic on healthcare staff mental health
- 2** The relationship between the built environment and healthcare staff mental health
- 3** The effects of healthcare staff burnout and turnover on patient outcomes and health system costs

THE TEAM THEN SYNTHESIZED THIS
INFORMATION AND BRAINSTORMED DESIGN
STRATEGIES TO ADDRESS THESE ISSUES

THE TIPPING POINT



THE CRISIS WITHIN THE CRISIS

As we start to feel like we're turning a corner in the pandemic, there is another crisis looming in the shadows of COVID. Healthcare staff burnout and turnover have reached dire levels and brought us to a tipping point where the quality of care for the nation's patients will see a substantial decline unless significant and meaningful change occurs.

THIS WON'T FIX ITSELF

Pre-pandemic, over half of physicians in the US were experiencing significant levels of burnout, and approximately 25% of ICU nurses experienced PTSD. Healthcare staff burnout and mental health was a major issue even before COVID, which has been exacerbated by the pandemic, and will remain an issue long after the pandemic is in our rearview mirror.

WHY SHOULD WE CARE?

This impacts all of us, because healthcare staff burnout and turnover both have significant negative influences on quality of care.

WHAT DO YOU MEAN?

How do the issues of healthcare staff burnout and turnover relate to design?

Extensive research has shown there is a strong connection between the built environment and the occupants within the space, such as shorter hospital stays and less pain medication for patients with a view of nature as compared to those with a view of a brick wall. As designers of the healthcare workplace, we have a responsibility to ensure the environments we create help to relieve burnout and turnover.

As it relates to staff, research shows the impact of workplace design on staff performance and their physiological and psychological wellbeing in a typical office setting. Additional research shows a connection between the mental state of healthcare staff and patient outcomes. Therefore, it can be concluded that the design of healthcare staff spaces influences patient outcomes.

THE DOMINO EFFECT OF BURNOUT

SOURCES OF BURNOUT	IMPACTS OF BURNOUT ON STAFF MENTAL HEALTH	IMPACTS OF BURNOUT ON THE HEALTH SYSTEM
<ul style="list-style-type: none">• Moral & ethical dilemmas• Inefficient processes• Excessive workload/hours• Loss of control• Loss of passion/meaning• Risk of exposure	<ul style="list-style-type: none">• Burnout leads to 200% greater chance of suicidal thoughts among healthcare staff• Mental health risks of healthcare professionals include above-average:<ul style="list-style-type: none">» Depression» Anxiety» Stress» PTSD	<ul style="list-style-type: none">• Affects health system's<ul style="list-style-type: none">» Risk for malpractice/litigation» Reimbursement» Reputation» Referrals• Affects staff's<ul style="list-style-type: none">» Productivity» Turnover rate» Safety» Physical health (Absenteeism)» Mental health (Presenteeism)» Practices related to prescribing, ordering more tests, and making referrals• Affects patient's<ul style="list-style-type: none">» Quality of care» Satisfaction» Safety

3 KEY CHARACTERISTICS OF MEDICAL BURNOUT

- 1 Emotional Exhaustion**
The feeling of being emotionally overextended by one's work
- 2 Depersonalization**
A decrease or lack of individualized response toward patients
- 3 Low Sense of Personal Accomplishment**
A lack of compassion satisfaction due to perceived low achievement

THE COST OF TURNOVER

What is the financial impact of healthcare staff burnout and turnover?

1

Nurse turnover is estimated to cost a health system 150% of that nurse's annual salary, totaling

\$5.1
MILLION
PER YEAR

2

The cost of an agency or travel nurse is 2-4x that of an employed nurse.

3

As a result of the pandemic, **30%** of healthcare staff left the profession with nearly 1/3 of the few who remain considering leaving as well.

4

95% of hospitals identified staff retention as an imperative initiative.

5

Staff shortages have a direct impact on finances due to increased operational costs and an indirect financial impact as a result of increased adverse events potentially leading to decreased HCAHPS scores and reimbursement in the long term.

6

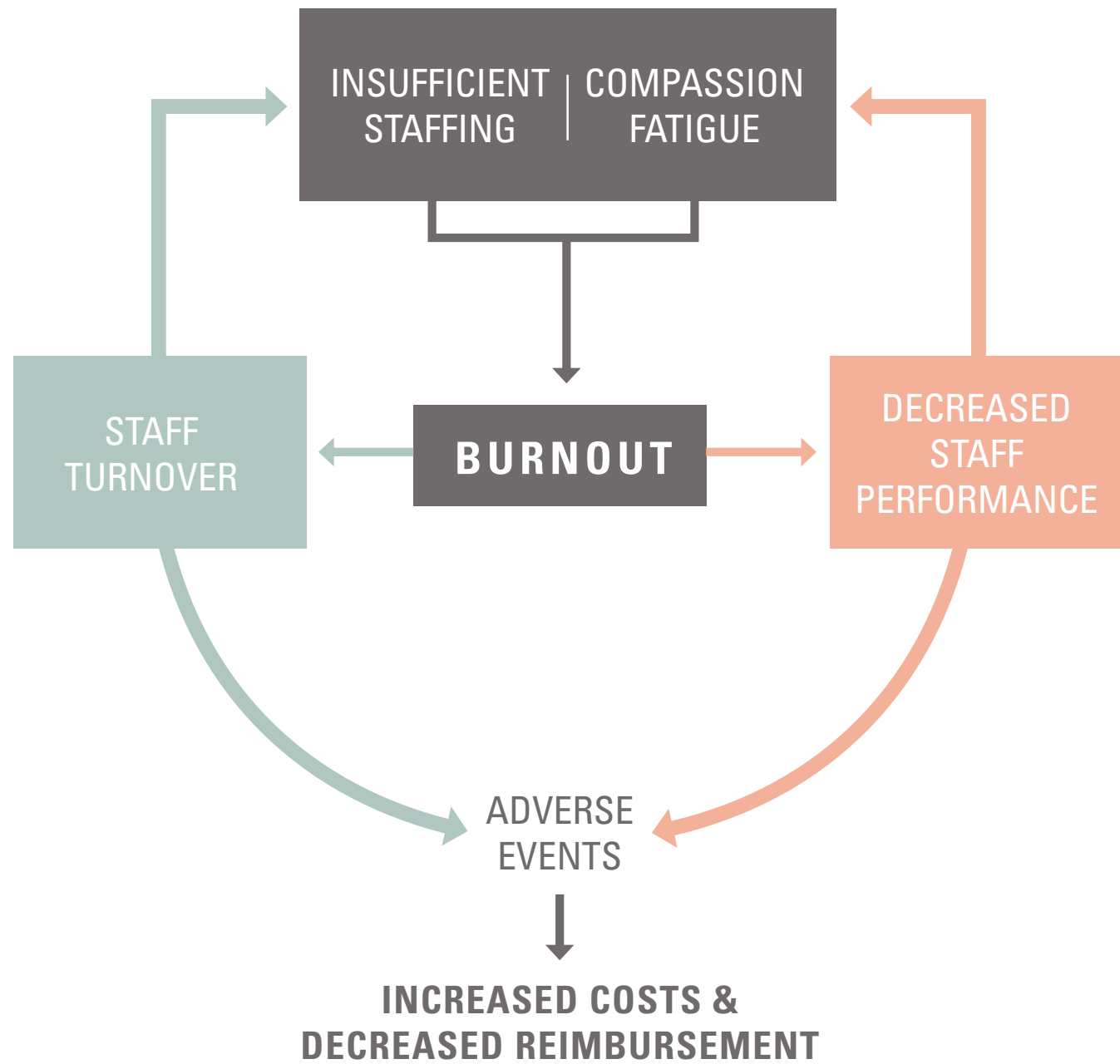
Appearance attracts new staff, while Function retains current staff.

DESIGN FEATURES THAT INFLUENCE STAFF ATTRACTION

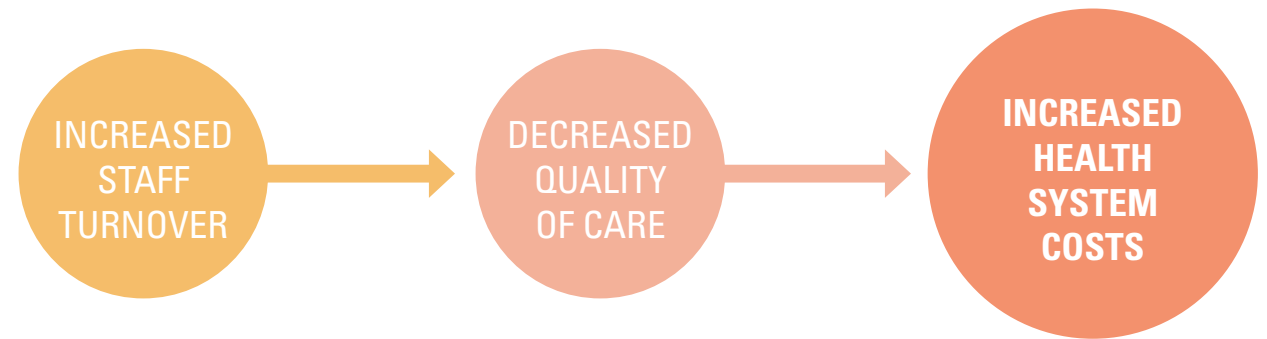
- Foyer/entrance
- Natural light
- Pleasant colors
- Walking distances / Unit layout
- Hospital / Clinic location

DESIGN FEATURES THAT INFLUENCE STAFF RETENTION

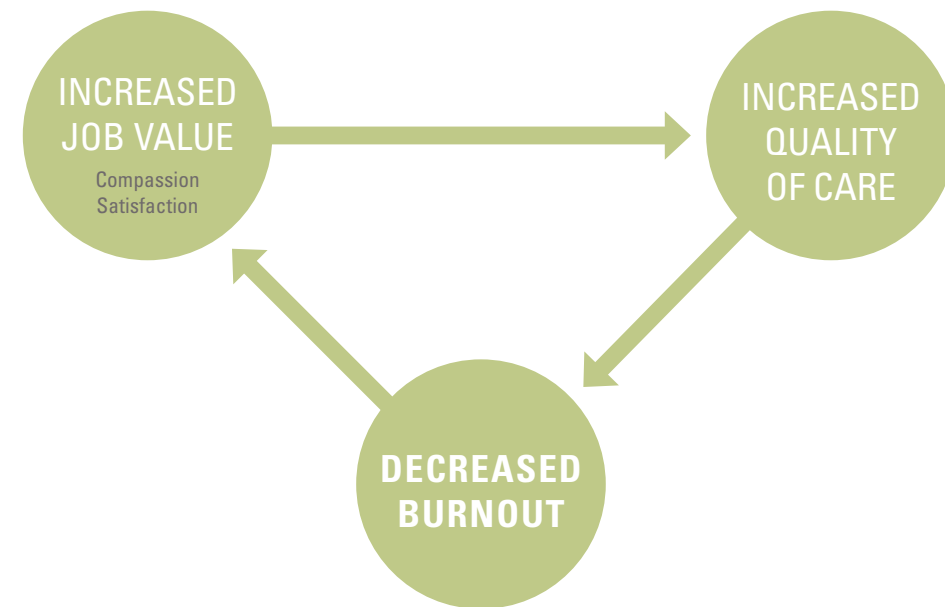
- Storage
- Amenities for staff, patients, and families
- Corridor length and proximity of spaces within unit
- Staff and patient lines of sight
- Natural light
- Variable temperature
- Noise level



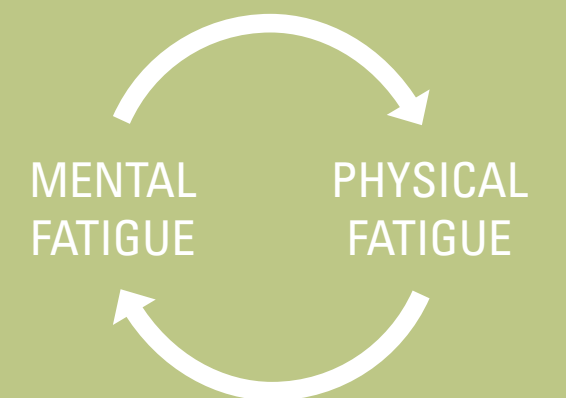
THE PROBLEM



THE SOLUTION



THE VICIOUS CYCLES



SPACE TYPES



Physical Fitness
Room or Amenity

Meditation Room
or Garden

Interior / Exterior
Garden or Courtyard

Mental Health Therapy or
Counseling Space

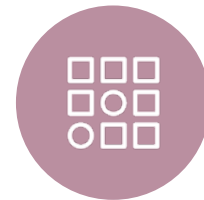
SPACIAL DETAILS



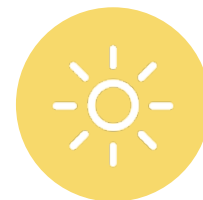
MATERIALS



COLOR / TEXTURE



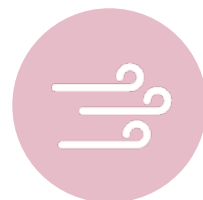
PATTERNS



NATURAL LIGHT



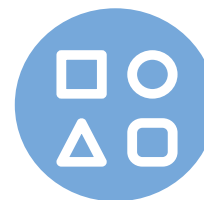
WHITE NOISE



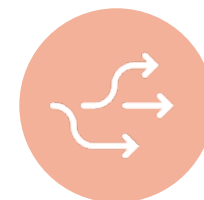
**AIR
QUALITY**



**ACCESS TO
NUTRITION &
HYDRATION**



**SPACIAL
VARIETY**



**FLEXIBILITY /
MOVABLE
FURNISHINGS**

BENEFITS OF DESIGN

Biophilic Design Principles &
Mental Restoration Spaces
(Interior/ Exterior - Connection to Primal Reprieves)

Space types intended to be:

- Restorative
- Supporting
- Energizing
- Calming

Spacial details to address:

- Staff Control
- Functional Needs
- Biophilic Elements
- Encouraging Environments

RESTORATIVE DESIGN CONCEPTS

Application of Space Types & Spatial Details through a Conceptual Floor Plan

SHARED CORRIDOR

- ACCESS TO NATURAL LIGHT & VIEWS OF NATURE IS NOT RESTRICTED TO SPECIFIC ROOM FUNCTIONS
- USE BY PATIENTS, VISITORS, AND STAFF

SHARED STAFF FITNESS ROOM

- DECOMPRESSION TIME
- CONVENIENT LOCATION FOR EASY ACCESS

SHARED STAFF GARDEN

- ACCESS TO NATURAL LIGHT
- ACCESS TO NATURE
- CALMING
- DECOMPRESSION TIME
- ONE-ON-ONE SUPPORT

VISITOR SUPPORT SPACE

- CLERESTORY
 - ACCESS TO NATURAL LIGHT
 - VISUAL PRIVACY FOR STAFF GARDEN

INDIVIDUAL DECOMPRESSION

- FUNCTION:
- PHONE ROOM
 - DECOMPRESSION ROOM
 - MOTHERS ROOM
- DESIGN:
- BIOPHILIC DESIGN ELEMENTS
 - VISUAL PRIVACY
 - CALMING
 - ACCESS WITHIN UNIT / CLINIC

SHARED DECOMPRESSION

- FUNCTION:
- DECOMPRESSION ROOM
 - ONE-ON-ONE SUPPORT
 - ONE-ON-ONE TRAINING
- DESIGN:
- BIOPHILIC DESIGN ELEMENTS
 - VISUAL PRIVACY
 - ACOUSTIC PRIVACY
 - CALMING
 - ACCESS WITHIN UNIT / CLINIC



SHARED STAFF TRAINING

- ACCESS TO NATURAL LIGHT
- CONTINUED EDUCATION FOR A VARIETY OF TRAINING
 - MENTAL HEALTH
 - EVOLVING MODEL OF CARE
 - TEAM MEETINGS

STAFF OFFICE

- ACCESS TO NATURAL LIGHT THROUGH GLAZING IN PERIMETER ROOMS AND SIDELITE
- DOOR FOR ACOUSTIC PRIVACY

STAFF SUPPORT

- LOCATE TO MINIMIZE STAFF TRAVEL DISTANCES
- SIZE APPROPRIATELY
- COMPLY WITH INFECTION CONTROL PROTOCOL

NURSE STATION

- BIOPHILIC DESIGN ELEMENTS
- ACCESS TO NATURAL LIGHT THROUGH GLAZING IN PERIMETER ROOMS
- VISUAL ACCESS TO ALL PATIENT ROOMS
- SUFFICIENT STORAGE

BREAK ROOM

- BIOPHILIC DESIGN ELEMENTS
- ACCESS TO NATURAL LIGHT AND VIEWS
- ACOUSTIC PRIVACY

LAYOUT SHOWN FOR THE SOLE PURPOSE OF IDENTIFYING RESTORATIVE DESIGN CONCEPTS

- STAFF RESTORATIVE SPACE (IN UNIT/CLINIC)
- STAFF RESTORATIVE SPACE (SHARED IN BUILDING)
- STAFF SUPPORT SPACE (STORAGE, ETC)
- STAFF WORK AREA
- PATIENT CARE
- VISITOR SUPPORT AREA

Reverse the Vicious Cycles

Healthcare staff spaces should be designed with careful consideration for relieving the staff's compassion fatigue, since an increase in compassion satisfaction leads to a decrease in insufficient staffing, and thus improves quality of care provided to the community.

Considerations for the Project Team

1. Leveraging the funds already allocated for design projects as a method to address these issues allows the health system to enable positive change without significant additional costs.
2. The design solutions developed to address these issues should be a priority throughout the project, and the project team should avoid the elimination of them during the value engineering process.
3. While there can sometimes be a higher initial cost to some design solutions, it is expected that health systems can experience a quick return on investment and net profit as a result of lower levels of staff burnout and turnover, and their associated positive effects on patient outcomes and HCAHPS scores.
4. The more design strategies that can be implemented, the greater benefits and ROI they'll yield.

BENEFITS OF IMPLEMENTING THESE STRATEGIES

By implementing the design strategies outlined here, the built environment can promote relief from the issues afflicting healthcare staff, and thus improve the quality of care available to the communities they serve, while also positively impacting the health system's bottom line.

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