



Design for Behavioral and Mental Health: A Universal Approach & Benefit Analysis

About this tool

Design interventions to improve well-being for patients with behavioral and mental health (BMH) conditions will often have impacts on other populations, as well (e.g., staff, visitors, non-BMH patients who use the same facility). This tool will help you consider those broader impacts and incorporate them into an evidence-based process for a universal design approach. By evaluating the system-wide impact of potential design features, you will be able to purposefully accentuate benefits and reduce risks to other populations and conduct a more accurate benefit analysis. This tool is intended for use as part of a broader evidence-based design process, in which designers engage with stakeholders to:

- Identify the unmet needs of patients with BMH conditions
- Consider other populations that might benefit from (or be harmed by) design features that address these needs
- Select and implement design features to meet the needs of patients with BMH comorbidities, maximizing benefits and minimizing harm.
- Evaluate outcomes and share learning to help advance the evidence base.

Instructions

Below, you will find a partial example with additional notes on how to use each column.

1. Identify the unmet needs of patients with BMH conditions and design conditions that might help meet those needs. Conditions might include:
 - A homelike, deinstitutionalized environment that supports patient autonomy and control over their own environment;
 - An environment that is well-maintained and well-organized;
 - Noise control;
 - Support for privacy
 - Access to daylight and views of nature;
 - Physical access to the outdoors;
 - Support for feelings of personal safety/security;
 - Support for social interaction;
 - Positive distraction



2. Identify specific design features that might meet those needs (e.g., for “access to daylight and nature” you might consider the optimal orientation for windows in patient rooms).
3. Identify and evaluate research evidence about other populations that might be affected. Consider:
 - Who (and how many) may be impacted
 - How and to what degree they might experience those impacts, and
 - The level of evidence supporting the impacts.
4. Weigh the evidence about the impacts of the design feature(s) across all populations to prioritize your efforts and state the benefit analysis.
5. Maintain your repository of evidence for the team to review when necessary. To save space, use abbreviated citations that can be matched to references in your citation management software or that closely match your file names for easy tracking. (A common convention includes the first author and year.)

Design condition for improved BMH	Specific design feature studied	Population affected (who)	Size of the population affected in your facility	Impacts found for the population affected	Size of impact for this population	Type of evidence (e.g., research type, expert opinion)	Citation (Author, Year)	Priority	Notes
High-level design approach	Design intervention to implement that approach	If evidence suggests affects for more than one population, each gets its own row.	How common are members of the population affected in your facility? This can be qualitative or quantitative, depending on available data.	What outcome measure did the evidence report for this population ?	How big was that impact? This can be qualitative or quantitative, depending on available data.	Is the evidence research, case study, expert opinion? If the evidence is research-based, it may help to note the study design (e.g. RCT, observational)	Maintain a repository of the information through a shared folder, spreadsheet, or reference management software.	Balance +/- impacts, BMH population size vs. “all users,” etc. (e.g., ‘very high’ for features suggesting a large benefit for a large population with minimal risks)	Record other discussion points related to this design feature (e.g., dependencies or conflicts w/ other plans, alignment with strategic goals, other impacts)



TOOLS

A Tool for Designing for Behavioral and Mental Health

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Access to daylight and views of nature	Building orientation (North v South exposure in rooms)	Patients w/ myocardial infarction (MI)	Large (<i>For this scenario, care for both populations will be in a common cardiac care wing.</i>)	Reduced mortality	39.4%	Observational study	Beauchemin, & Hays, 1998	Very high	Also place therapy garden on north side?
Access to daylight and views of nature	Building orientation (North v South exposure in rooms)	Women with MI	Large	Reduced length of stay (LOS)	1.0 day	Observational study	Beauchemin & Hays, 1998	High	The hospital's LOS for women with MI has been rising for the past 3 years.

Etc...

