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Staff and Resident Perceptions of Mental Behavioral Health Environments

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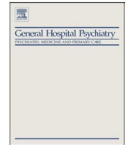
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Mental and behavioral health environments: critical considerations for facility design



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ABSTRACT

Objectives: The purpose of the study was to identify features in the physical environment that are believed to positively impact staff and patients in psychiatric environments and use these features as the foundation for future research regarding the design of mental and behavioral health facilities.

Methods: Pursuant to a broad literature review that produced an interview script, researchers conducted 19 interviews of psychiatric staff, facility administrators and architects. Interview data were analyzed using the highly structured qualitative data analysis process authored by Lincoln and Guba (1985). Seventeen topics were addressed ranging from the importance of a deinstitutionalized environment to social interaction and autonomy.

Results: The interviewees reinforced the controversy that exists around the implications of a deinstitutionalized environment, when the resulting setting diminishes patient and staff safety. Respondents tended to support open nurse stations vs. enclosed stations. Support for access to nature and the provision of an aesthetic environment was strong. Most interviewees asserted that private rooms were highly desirable because lower room density reduces the institutional character of a unit. However, a few interviewees adamantly opposed private rooms because they considered the increased supervision of one patient by another to be a deterrent to self-harm. The need to address smoking rooms in future research received the least support of all topics.

Conclusion: Responses of interviews illustrate current opinion regarding best practice in the design of psychiatric facilities. The findings emphasize the need for more substantive research on appropriate physical environments in mental and behavioral health settings.

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Purpose of Study

Identify **design features** that critically impact staff and residents in MBH environments.



Develop a **tool** to evaluate MBH facilities.



Test the tool (PSED/PPED) with staff and residents.



Methods

Phase 1 – Interviews

Objective: How important were the topics and were they inclusive?

25-40 minutes interviews conducted with experts in behavioral health.

Participants identified via snowball sampling. $n = 19$

- 7 clinicians
- 4 academics/researchers
- 5 architects/designers
- 1 researcher/practitioner
- 2 administrators

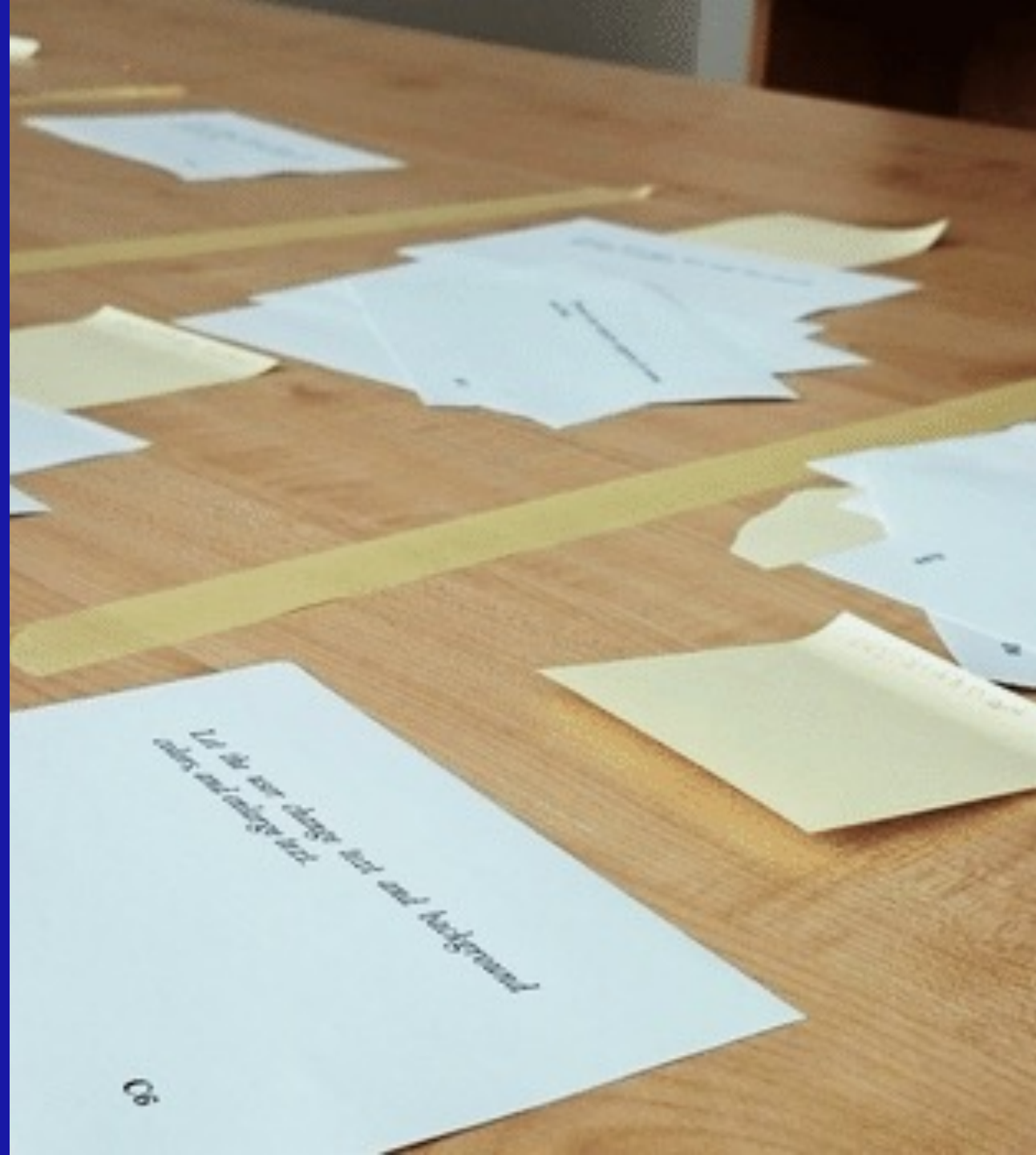


Methods

Phase 1 – Interviews

Interview transcriptions were analyzed using **grounded theory method** (Lincoln & Guba, 1985):

- 761 notecards generated
- Cards are sorted into common topic categories.
- Second reviewer sorts cards independently to confirm consistency of the categorization.



Results: Deinstitutionalization

Every interviewee considered deinstitutionalization / “homelike” a critical aspect of MBH setting

However, the definition of “homelike” was unclear.

Not everyone embraces the traditional vision of home; to some the notion may be disturbing.

The essence of ‘home’ has more to do with feeling welcome and secure.



Results: Orderly & Organized

Most interviewees **expressed concern** over the term “orderly and organized.”

Does not account for the comfortable “complexity” of activities in a psychiatric facility.

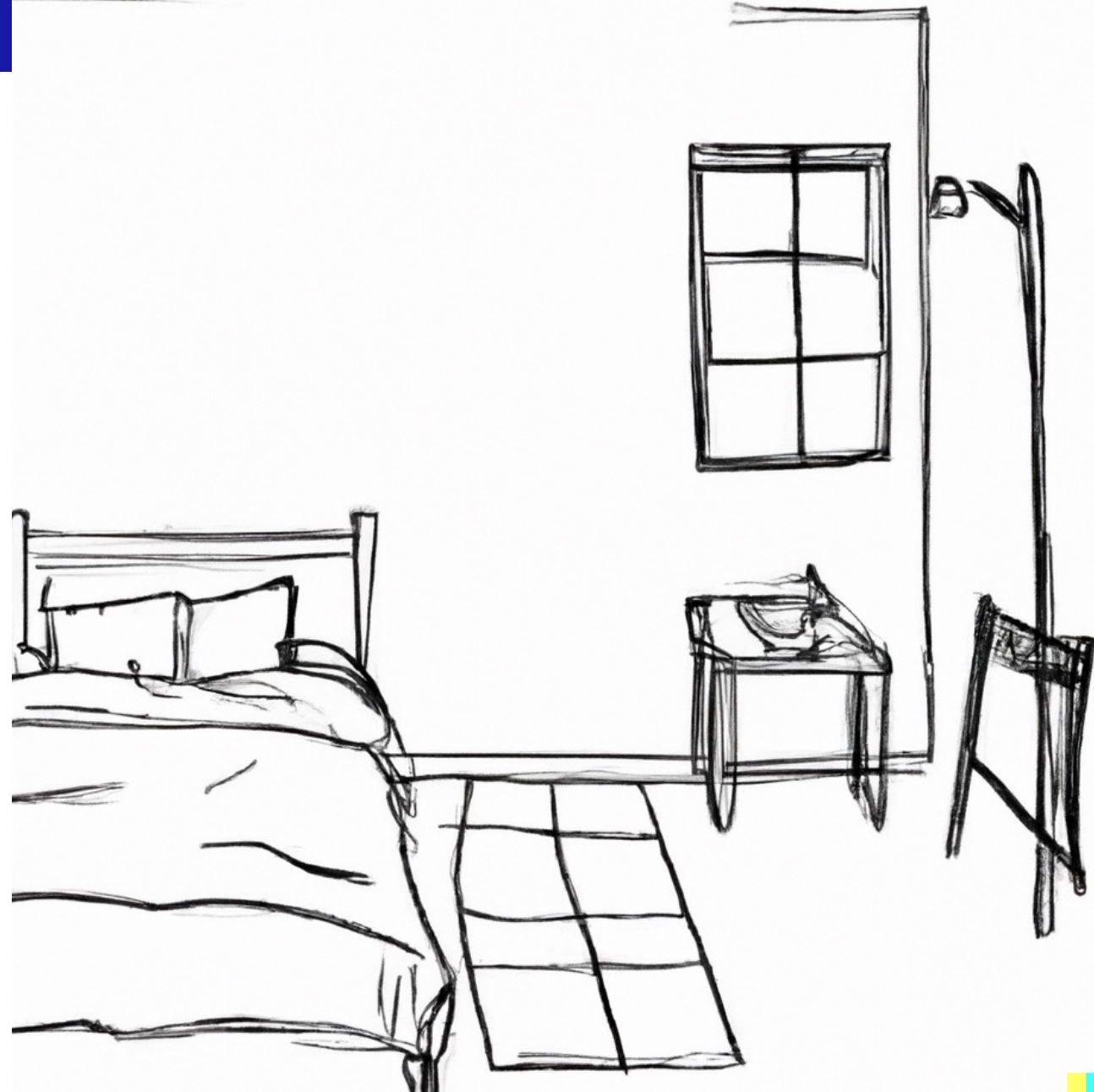


Results: Well-Maintained

Nearly every interviewee strongly supported a well-maintained environment.

High-quality environments convey a sense of respect for residents.

Relationship between well-maintained environments and the incidence of property destruction.



Results: Damage-Resistant & Attractive Furnishings

Most interviewees believed **damage-resistant furnishings are critical.**

But difficult to find durable, non-institutional, reasonably priced furniture.

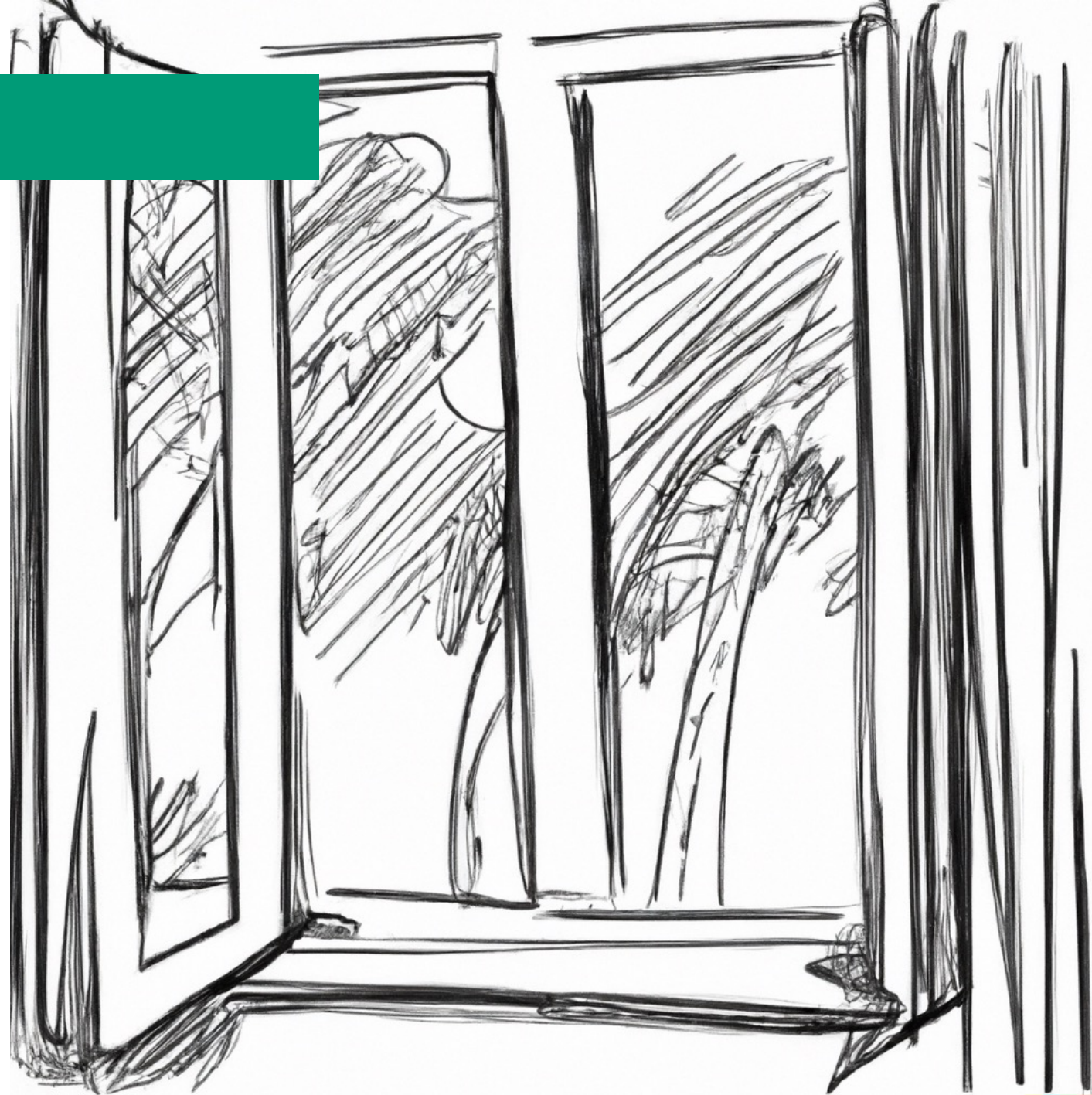


Results: Access to Nature

All but one interviewee believed visual and physical access to nature was critical.

One interviewee remarked that **nature is important in ways “we may not even completely understand.”**

Another called access to nature “the next great frontier” in the design of mental health facilities.



Results: Maximum Daylight

Agreement that provision of **extensive daylight is critical...**

... but “nobody is quite sure how to do it.”

Electrical lighting is an inadequate substitute.



Results: Staff Safety & Security

Most interviewees felt that promoting staff safety is a priority and **could be improved.**



Results: Staff Respite

Most interviewees believed space for staff respite is an important issue.

No consensus as to the exact **nature and location** of staff respite amenities.

Results: Low Density Bedrooms and Baths

Agreement that research is needed.

Private and/or semiprivate rooms preferred.

Private rooms recognized as increasing construction costs and inhibiting supervision.

Private bedrooms/bathrooms linked to resident diagnosis and acuity.



Results: Resident-Staff Interaction and Observation

Most experts thought private areas for staff-resident interaction are essential.

A recurring concern was the **need for spaces that facilitate a variety of social activities.**



Results: Mix of Seating

Nearly all interviewees felt that mix of seating arrangements are important to **facilitate activities**.

Need variety of seating arrangements to support both one-on-one interactions or group therapy.



Results: Autonomy & Spontaneity

The importance of spaces conducive to autonomous and spontaneous behavior commonly acknowledged.

Importance of environmental amenities such as computers or video games, and spaces such as kitchens.



Results: Nurse Station

Nurse station design of great interest to all but one interviewee.

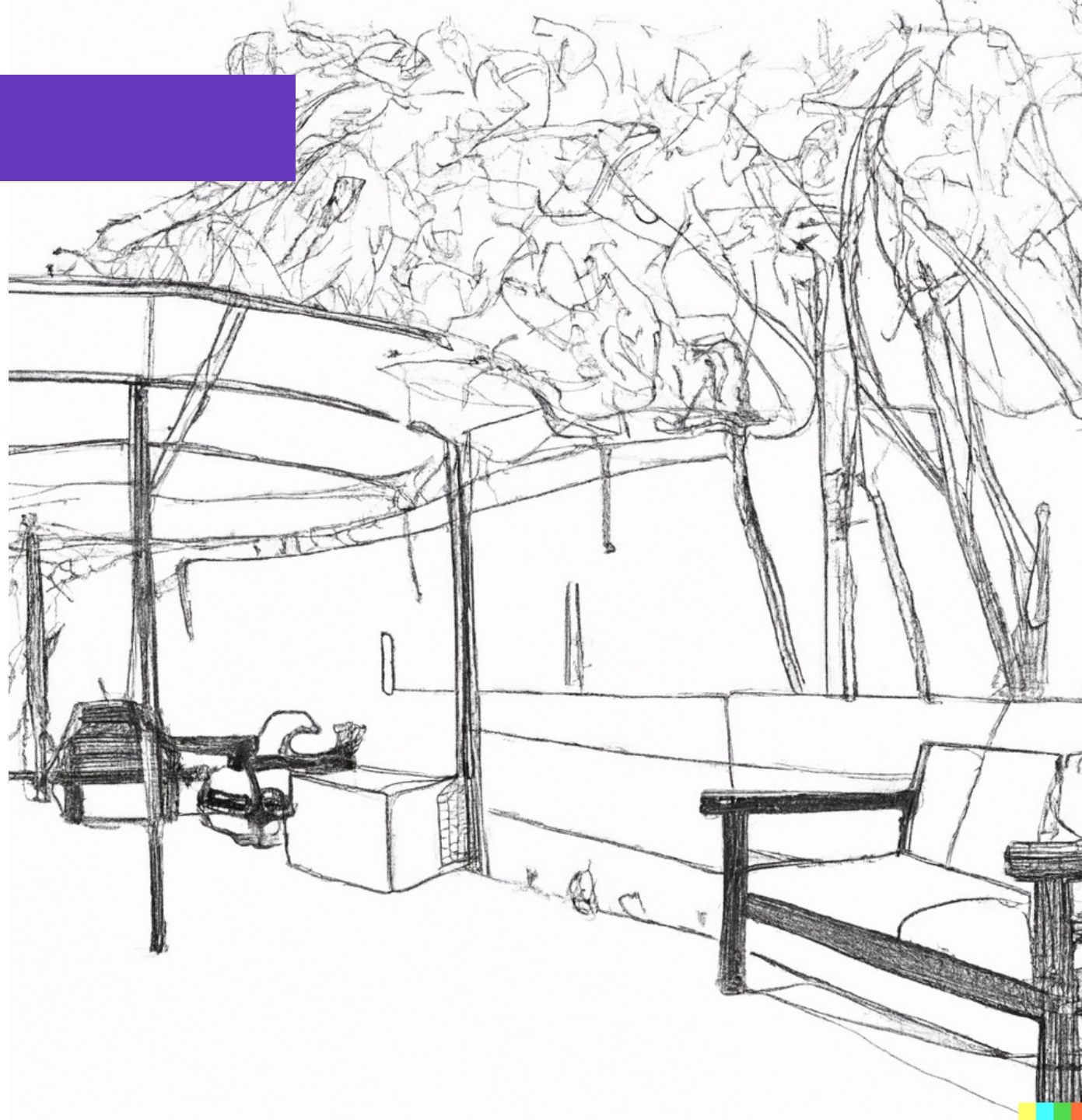
The debate between open and closed stations focuses on **balancing needs for resident supervision and staff safety.**



Results: Indoor/Outdoor Therapy

All interviewees affirmed the importance of **outdoor and indoor therapeutic spaces.**

Examples of amenities that could be offered include supervised indoor swing, ping-pong table, or stationary bicycle.



Results: Smoking Room

Several interviewees stated **accommodating smoking is not an important topic.**

Nicotine substitutes are often provided and smoking is not allowed.

A minority of interviewees disagreed.



Results: Suicide Resistance

Most participants felt the development of suicide-resistant equipment was **critical and evolving**.

Few thought that it has already been thoroughly explored.

Additional dialogue required despite availability of current guidelines.



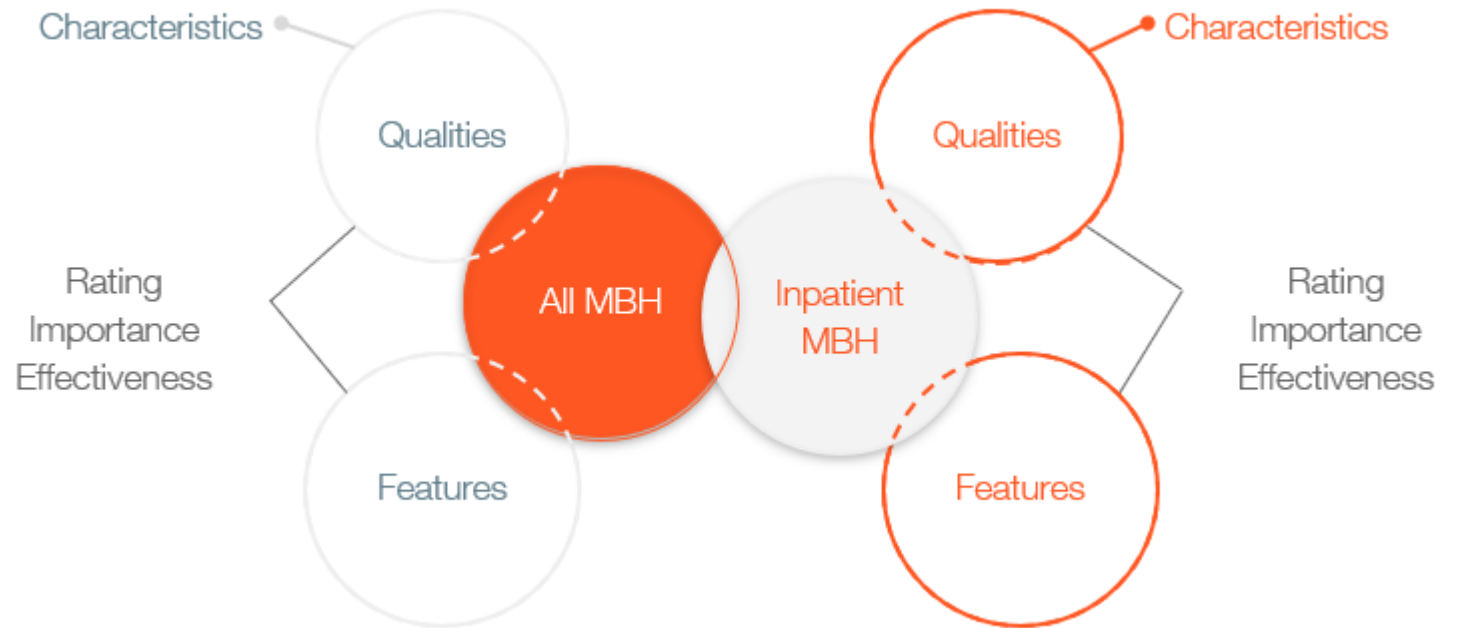
Methods

Phase 2 – Pilot Psychiatric Staff Environmental Design Survey (PSED)

Objective: Create and pilot a tool for evaluating MBH facilities with staff.

The PSED tool studied importance and effectiveness of environmental interventions identified in Phase 1.

Pilot participants recruited through psychiatric nurse organizations. $n = 134$



Results

Phase 2 – Pilot Psychiatric Staff Environmental Design Survey (PSED)

Hypothesis 1: The **usefulness** of the PSED tool was corroborated.

- More facility information and the clustering of topics needed.
- Provides baseline to compare with resident responses.

Hypothesis 2: There was indeed a **discrepancy** in the importance and effectiveness of desirable features.

- Disconnect could have negative consequences on staff retention.

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Mental and behavioral health settings: Importance & effectiveness of environmental qualities & features as perceived by staff

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ABSTRACT

This paper describes research on the design of behavioral and mental health clinical staff, the purpose of the study was four-fold: to develop and test a and behavioral health (MBH) facilities, to evaluate the importance and e

Methods

Phase 3 – REVISED Psychiatric Staff and Patient Environmental Design Surveys (PSED and PPED)

Objective: Refine and validate a tool for evaluating MBH facilities with staff and residents.

Facilities: Two healthcare organizations (CA and NY) comprising four facilities (3 in CA, 1 in NY)

Procedure: Staff survey administered online via Qualtrics at all 4 facilities. Resident survey administered on paper in 3 CA facilities.

Participants:

$n = 58$ PPED (resident) responses

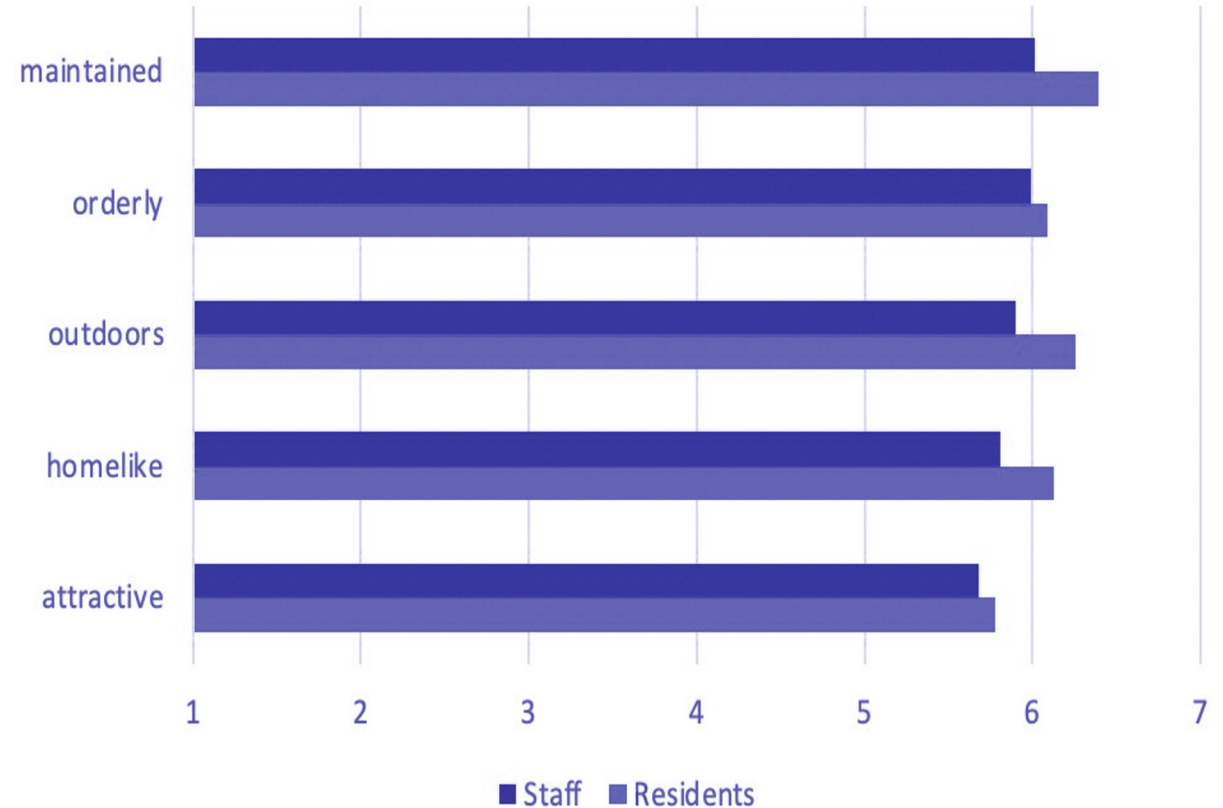
$n = 157$ PSED (staff) responses



Results

Phase 3 – REVISED Psychiatric Staff and Patient Environmental Design Surveys (PSED and PPED)

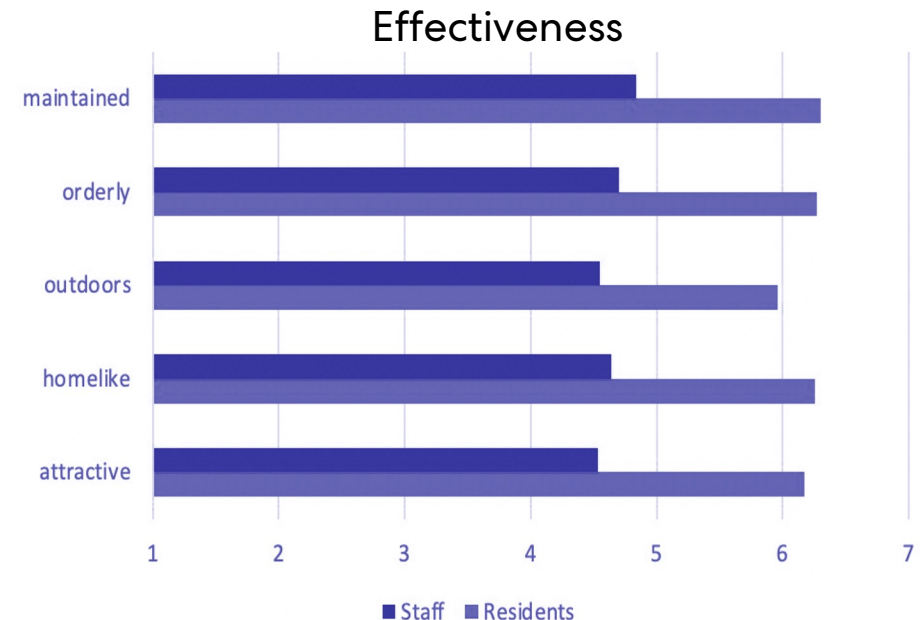
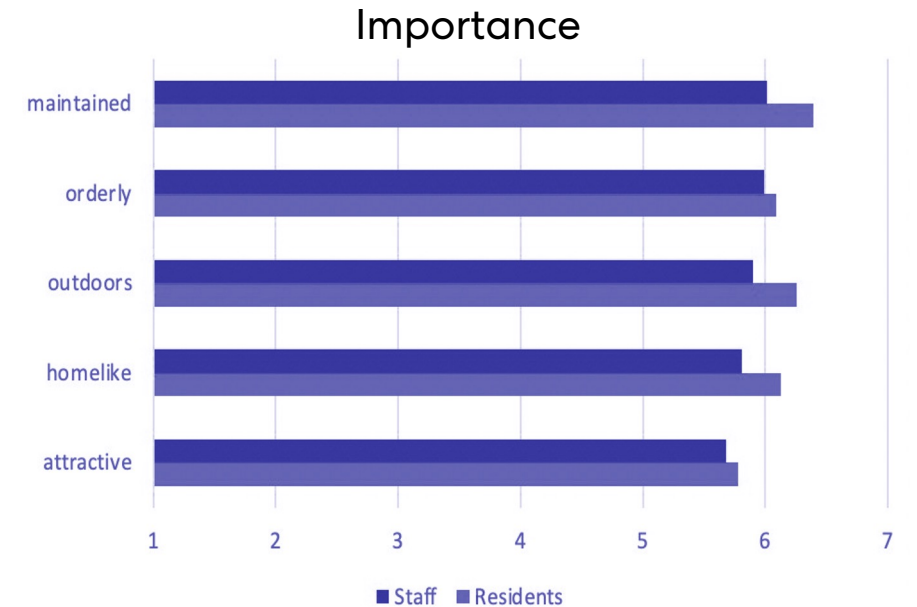
- Most important qualities for **residents** were maintenance and suicide resistance.
- Most important qualities for **staff** were staff safety, security and suicide resistance.



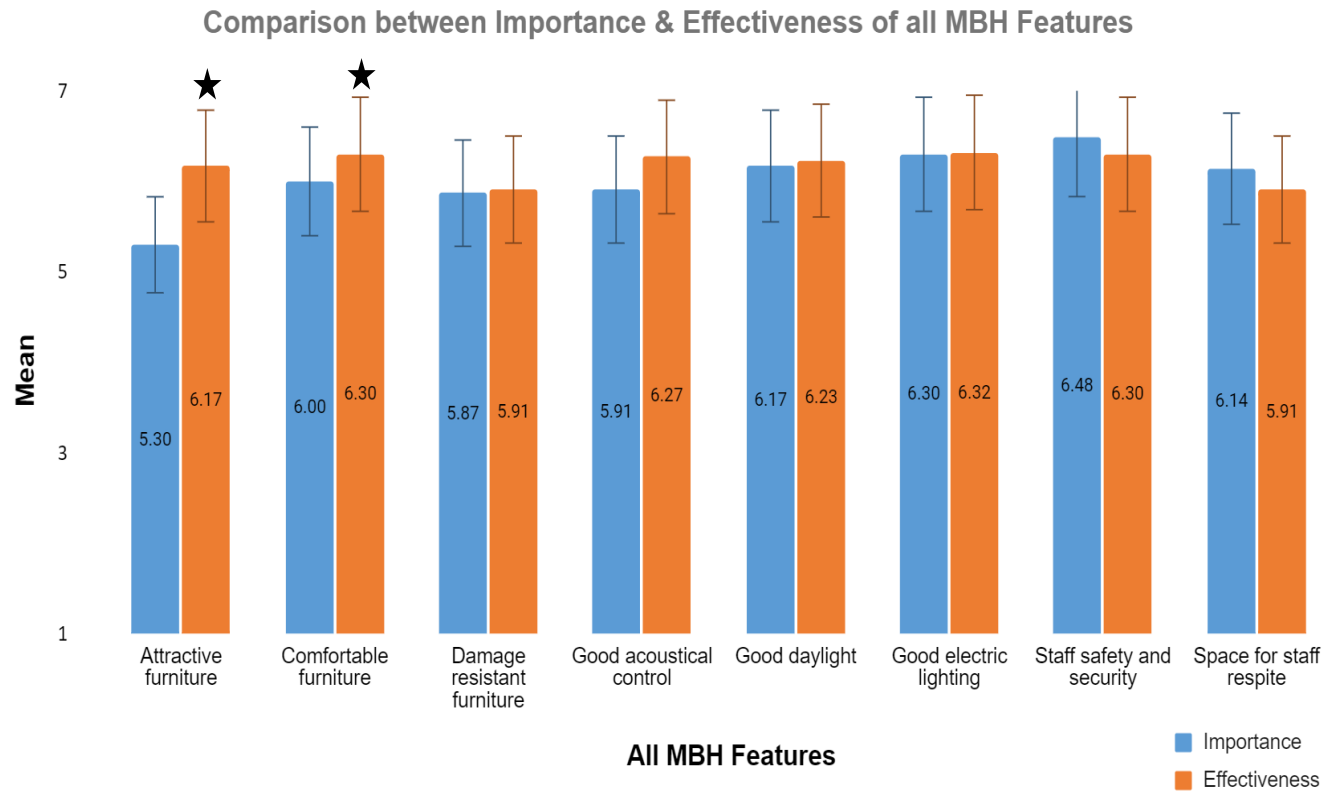
Results

Phase 3 – REVISED Psychiatric Staff and Patient Environmental Design Surveys (PSED and PPED)

- **Staff reported significant differences** between importance and effectiveness of environmental attributes ($p < .0001$).
- However, **residents did not** report a significant difference.
- Staff reported more inadequacies than residents ($p = .004$).



Interesting Notes

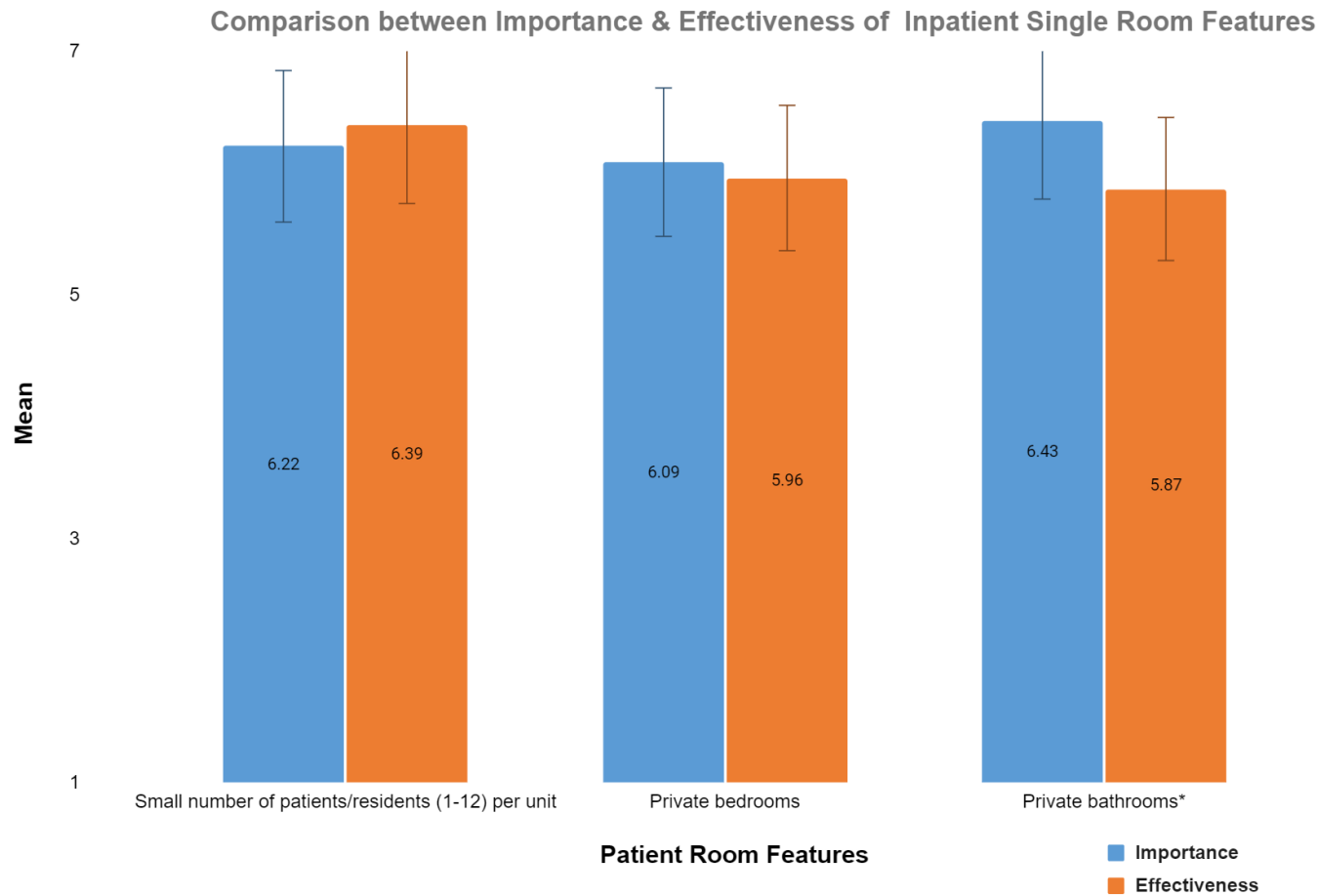


Designers may think the aesthetics of furniture is an obvious way to improve resident perception of physical environment. That was **not supported** in this case.

Attractive and comfortable furniture were both more *effective* than they were important.

Recommendation: Invest in other applications during renovation with limited budget.

Interesting Notes



Privacy and personal space are key to achieving a homelike, deinstitutionalized environment, according to residents.

High social density may lead to increase in stress and aggression level (Chou, Lu & Mao, 2002; Ulrich, 2018).

Recommendation: Enhance psychiatric patient privacy through use of single rooms with private bath, when acuity allows.

Future Work

Improving the PPED/PSED

- Phrasing questions
- Shorter version
- Adolescent and pediatric version

Conducting additional
**benchmarking and validation
studies**



Conclusions

- Experts in MBH practice and design have a **consensus around important topics.**
- Developed from a literature review and interviews, and refined after a pilot survey, the **PPED and PSED tools provide a comprehensive assessment** of resident and staff perceptions.
- These **perceptions may differ** between residents and staff, requiring further stakeholder engagement during the design process.



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