Designing for human health and wellness

This table identifies six human qualities that most people desire for physical and mental health in the places they inhabit. While these principles apply to various types of homes including permanent supportive housing or transitional/emergency shelters, other, more public spaces may benefit as well as applicable. They may be particularly important to persons who have experienced trauma in their past. On the right are some general hints on how these qualities can be assisted by architecture and interior design elements.

This list represents a beginning proposal to which other ideas would be added by a consensus of multiple voices including housing and facility directors, case managers, social work researchers, and architecture. interior architecture & design practitioners and researchers.

Category and indicators	Brief Definition	Architectural Ideas
Dignity and Self Esteem		
Individual identity (Miller & Keys, 2001) vs. treated as a number	People like to be treated as and recognized as individual people, not as anonymous	Provide opportunities for proclaiming ownership and expressing one's name and/or identity to others
Environment's design neutralizes power differentials (American Association of Children's, 2010)	People can be sensitive to feeling dominated or overpowered.	Space can invite or discourage an 'us' versus 'them' approach through vertical design. For example, higher floor levels are often associated with authority, while same-level space is seen as more equal.
Communication of positive messages (Hopper, 2010)	Disadvantaged persons, like everyone, benefit from positive gestures in their surroundings and in people interactions. Ideas like acceptance, invitation, happiness, joy are welcome.	Color, texture, and objects (for example, flowers) carry with them positive messages. Spaces that give priority to these ideas can convey optimism.
Avoidance of triggering negative associations and memories (Hopper, 2010)	Disadvantaged persons often have negative memories of abuse, scarcity, desperation or pain. Surroundings can trigger memories of these which can affect peace of mind and even self-esteem.	While every person is different, some physical associations with materials or shapes are universal. For example, black painted metal, when used in certain ways, can evoke prison bars.
Empowerment/Personal Control		
Can alter the built environment (Burn, 1992)	People like feeling they have control over their surroundings.	Inflexibility in physical design can prevent people of moderating an environment to suit the moment. Can windows open? Mood change through lighting? Privacy be adjusted? Ventilation?
Can choose degree of social engagement	People like having the ability to participate with others when they want, or withdraw to be alone, or be nearby to listen but not engage.	A physical built environment can give permission for a person to fully engage with others or not through physical cues. Window and door options can send these signals, or even walls that vary in open or closed configurations are

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Security, Privacy and Personal Space		
Presence, degree and design of safe storage	People identify with and are assisted by their possessions, and so they are deeply aware of how safe these items are from theft and destruction. Jewelry, photos, clothes, technology are just a few things people often protect.	Barriers and locks provide physical protection and also peace of mind. Concealment is also a strategy to discourage theft.
Presence of clear spatial boundaries (Hopper, 2010)	People naturally establish and protect their personal physical territory as a way of maintaining their identity.	Built spaces can send messages of 'this is mine' through figurative or literal lines, boundaries, changes of material, shape or height. The raised porch is a classic example.
Predictability (Hopper, 2010)	People, especially those that have seen crisis in their past, generally prefer environments that offer comfort, solace and reliability.	Forms and assemblies that seem off-balance or top heavy or unstable are not usually loved. While creativity in an environment can be positive, being too experimental can interfere with a sense of comfort.
Sense of safety (Hopper, 2010)	People with past crises can be sensitive to mental or even physical attacks by others. This can elevate stress levels.	Persons with Post Traumatic Stress Disorder or are victims of domestic violence may be sensitive to being able to see their entire environments from one vantage point. They also appreciate space plans that do not allow them to be approached from a direction they cannot see. Having a 'defensive back' layout can help.
Ability to retreat (ASID, 2016)	Giving the ability to control one's engagement in a place or group can provide a comforting 'out' to persons who may be wary of situations.	Provide for 'away spaces' that permit engagement with others and a space on a person's own terms, especially in large rooms. Keep enclosures permeable with apparent exits for psychological comfort.
Visual privacy/positive sight lines (Stewart-Pollock & Menconi, 2005)	Sight is a powerful influence on state of mind. Most people appreciate views while also having the ability to feel visually private while in their homes.	Flexibility in architectural layout that permits both distant views (especially if in a very small space) and also privacy when necessary is helpful.
Sound privacy (Stewart-Pollock & Menconi, 2005)	To live life is to experience noise, and to also create it. People both hear outside noise and also creating sound, and sometimes there is a need to create barriers to hearing these.	Acoustic wall qualities and soft materials are but two methods to dampen sound transmission.
Size of personal space and sense of crowding (Evans, Schroeder & Lepore, 1996)	A sense of overcrowding is stressful to people. Western standards for a sense of crowding is approximately 1 room (8' x 10' for one person).	If a space must accommodate many items or functions or more than one person, extra steps are helpful to minimize a sense of crowding. Techniques include windows to visually expand space, dutch doors to flexibly extend space outward, and diagonal space plans to make the most of a small squarish footprint.
Stress management/coping		
Promotion of calm ambience (American Association of Children's, 2010)	While desired moods vary, people generally prefer an environment that can be calm when the moment calls for it.	Color, spatial layout, lighting, and materials are a few ways that can promote calmness

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Access to nature/natural elements (Penndorf, 2016)	People have an affinity for engaging with the natural environment, either seeing it, being in it, or both, while still feeling protected by their home.	Window views, door access, daylight, and/or bringing natural elements inside are techniques to create engagement with nature.
Positive distraction (Shepley & Pasha, 2017)	As a means to change the subject and provide positive input, provide architectural features that move focus toward positive elements.	Art with restorative image content such as nature, access to individual music. Views from key locations, comfortable seating for reading and access to reading materials.
Sense of Community		
Camaraderie and collaboration (American Association of Children's, 2010)	Working toward a shared goal can build relationships and is nourishing to most people.	Charity activities, gardening and other group events can purpose persons toward collective goals.
Belonging to a group (Miller & Keys, 2003)	A sense of being a part of something greater is a healthy human attribute and is associated with spiritual health.	Built space can serve as the setting for activities that engage multiple people, such as discussions, parties, cookouts, and worship services.
Beauty and Meaning		
Homeyness (McCracken, 1989)	A feeling of being oneself, comfortable and surrounded by familiarity provide a sense of grounding and purpose for people.	While expressions of homeyness vary, some trends include use of warm colors, natural materials such as stone, brick and wood, and natural fiber fabrics. Also small items such as books and personal memory objects.
Opportunity to create	Progress and striving for personal betterment are associated with healthy human development. The act of creating something is also good mind exercise.	Hobbies such as art, writing, music, and similar pursuits provide stimulation and can build relationships.
Ability to organize one's belongings/avoidance of chaos (Orth and Wirtz, 2014)	Living in a situation of visual chaos is mentally exhausting. Some people start to associate their inability to organize and store their belongings with personal failings, affecting self-esteem.	People appreciate the opportunity to not only store belongings, but to categorize them for easy retrieval. Giving someone the ability to maintain a place to live where things have a dedicated 'home' is comforting.

References

American Association of Children's Residential Centers (2010). Redefining residential: trauma-informed care in residential treatment. Retrieved from www.aacrc.dc.org

American Society of Interior Designers (2016). Healthcare design sector brief. November 2016. Washington D.C.: American Society of Interior Deigners.

Bierie, D. (2011). Is Tougher Better? The impact of physical prison conditions on inmate violence. *International Journal of Offender Therapy and Comparative Criminology, (56)* 3, 338-355.

Burn, S. (1992). Loss of Control, Attributions, and Helplessness in the Homeless. *Journal of Applied Social Psychology, 22*(15), 1161-1174.

Evans, G., Schroeder, A., & Lepore, S. (1996). The role of interior design elements in human responses to crowding. *Journal of Personality and Social Psychology, 70*(1), 41-46.

Hopper, E., Bassuk, E. and Olivet, J. (2010). Shelter from the storm: trauma-informed care in homelessness services settings. *The Open Health Services and Policy Journal, 3*, 80-100.

McCracken, G. (1989). "Homeyness": A cultural Account of One Constellation of Consumer Goods and Meanings. In E. Hirschman (ed.) *Interpretive Consumer Research* (pp. 168-183). Provo UT: Association for Consumer Research.

Miller, A. & Keys, C. (2001). Understanding dignity in the lives of homeless persons. *American Journal of Community Psychology*, (*29)*2, 331-354.

Orth, U. R., & Wirtz, J. (2014). Consumer processing of interior service environments: The interplay among visual complexity, processing fluency, and attractiveness. *Journal of Service Research, 17*(3), 269-309.

Penndorf, J. (2016, July 5). How design mitigates environmental stressors. Building Design + Construction. Retrieved from http://www.bdcnetwork.com/blog/how-design-mitigates-environmental-stressors

Shepley, M. & Pasha, S. (2017). *Design for Mental and Behavioral Health.* New York: Routledge.

Stewart-Pollack, J. & Menconi, R. (2005). Designing for privacy and related needs. New York: Fairchild.
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