



The Importance of Physical Environment

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“ Your outlook upon life, your estimate of yourself, your estimate of your value are largely colored by your environment...”

Orison Swett Marden
(founder of *Success* magazine)

The Importance of Physical Environment

Physical space

Physical environments in inpatient, residential and community-based settings are central to the consumer and staff experiences in these services. There are many key environmental elements that may influence our experiences, including some of the following: the shape of the physical space, the size and variety of spaces available, furnishings, cleanliness, state of repair, cultural décor, color scheme, decorative objects, and the smells, and sounds within a space. The availability of porch areas and creatively designed outside spaces can provide additional opportunities for sensory enrichment (e.g., sensory gardens, playground equipment).

Physical environments can influence feelings of safety, security, and comfort, or conversely may contribute to feelings of irritation, anxiety, sadness, and insecurity. From a sensory processing and recovery perspective, therapeutic physical environments must be designed and maintained in a manner that facilitates feelings of safety, comfort and stability. Physical environments must also support engagement in age appropriate activities and social participation, which are important aspects of the treatment and recovery process.

Experts in the field of child development emphasize the need to ensure that the physical environments in treatment settings are safe, functional, and meet the developmental and clinical needs of the children (Bundy, Lane & Murray, 2002; Thelen & Smith, 2000; Ayres, 1979). The use of greenery, soft colors, presence of animals, and integrative therapies are often used to facilitate a child's sense of safety, well-being and comfort.

Programs that have successfully implemented a trauma-informed, strength-based approach and significantly reduced or eliminated the use of S/R, have assessed and improved the physical environment. To meet this goal, they have attended to the basic needs of the physical environment (e.g., repairs, organization, space for large motor activities), and have ensured that the environment is both nurturing (e.g., colors, music, plants) and affirming (e.g., culturally competent, trauma-informed, displays children's work, contains developmentally supportive equipment and furnishings).

Creating a positive physical environment: ideas for helping programs promote nurturing and affirming physical environments

The program environment should be:

- Strength-based, trauma-informed and recovery focused;
- In good repair; maintenance should be done promptly;
- Welcoming and visually attractive;

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- Painted in soothing, soft tones/pastel colors;
 - Decorated to reflect the different ethnic heritages of the children and families served;
 - “Normalizing” (e.g., signs should say “Family Members are Welcome,” rather than “Visiting Hours are Restricted to...”);
 - Replete with awards, art work, and school work of children proudly displayed;
 - Decorated with murals the children have created;
 - Furnished with solid, clean, comfortable furniture.

The program environment should be able to provide:

- Indoor spaces for large motor activities and items that encourage engagement these activities (e.g., big therapy balls to roll around on, climbing/playground apparatus, *Wii* games, sports equipment);
- A well-kept outdoor area for different types of play (if this is not available, the program should have access to parks, swimming, gyms near to the program that can be used frequently);
- Cozy and quiet areas;
- A private space for children to spend time with their families;
- Toys and activities for young children visiting with their families;

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- Areas providing a variety of comforting, sensory modulation tools (as described in the following section on sensory rooms);
 - A quiet place for staff members to meet;
 - Places for staff members to keep their belongings;
 - An abundance of green plants;
 - Live animals (e.g., fish tanks, gerbils, pet therapy visits);
 - Many games and activities for different age groups that are kept in good repair, easily accessible and organized;
 - Visible references promoting self-esteem of children and adolescents of all sizes, shapes, ethnic backgrounds, and religious preferences through pictures, reading materials, and magazines.

Program staff members should:

- Use the physical environment to foster feelings of safety, security and overall child development;
- Teach, model and help children learn to respect the physical environment (e.g., pushing chairs in gently after eating, straightening up a room before leaving) and to properly use different living areas (e.g., reading areas, sensory/comfort room);
- Pick up debris or sweep up messes they find on the property and in the program;

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- Take care of the environment at the program (e.g., water and repot plants, update bulletin boards with children's art work, help children decorate their rooms, rearrange furniture to change the mood on the unit);
 - Teach, model, and help children pick up after themselves, before and after activities and in the everyday cleaning of the unit.

Use of the environment to promote self-regulation

In addition to considering general modifications to the overall physical environment, experts support the creation and use of specialized, sensory supportive spaces, such as sensory rooms (Long & Haig, 1992; Pinkney, 2000; Ashby et al., 1995; Baker et al., 2001; Champagne, 2003a; 2006, 2008; LeBel & Champagne, 2010). These are spaces that are dedicated to providing nurturing and healing therapeutic resources in treatment programs for children

Increasingly, mental health programs are recognizing that the physical environment can be used as a tool to help children learn self-regulation (or sensory modulation) and self-control strategies and to foster the developmental process (NETI, 2003). Creating and implementing the use of sensory rooms has also assisted some programs in significantly reducing or eliminating the use of S/R (Champagne, 2003b, 2011; Champagne & Stromberg, 2004; LeBel & Champagne, 2010).

Please see the chapter on *Sensory Approaches* for more information.

History of the sensory room

Sensory rooms, first introduced in the 1960's and 1970's, have a variety of names including: Snoezelen rooms, sensory integration rooms, dark rooms, white rooms, multi-sensory environments, and multi-sensory rooms.

At the De Hartenburg Institute in Holland, a range of sensory items were developed within a specialized therapeutic treatment environment called “Snoezelen” (Hulsegge & Verheul, 1987). Snoezelen rooms were named using a combination of terms from the Dutch language, “snuffelen” (to explore or to seek out) and “doezelen” (to relax). The use of a non-directive therapeutic approach was the treatment philosophy attached to snoezelen, and these environments were primarily available for people with profound developmental and cognitive disabilities (Hulsegge & Verheul, 1987; Hutchinson & Haggard, 1991).

Currently, the term “sensory room” is considered a general categorization that has only been more recently clarified within the literature (Champagne, 2008, 2011). Sensory rooms vary greatly according to the type, purpose of use, equipment offered, strategies and interventions used within each space, and the degree of expertise required to utilize the equipment in the room. There are three sensory room categorizations

provided below that may be used in mental health settings. However, it is possible to combine elements from these different types of rooms to create a “combo space”, when staff members are trained to utilize the specific strategies and available equipment. A combo space is one that incorporates elements from two or all three different sensory room types.

Sensory modulation rooms

Sensory modulation rooms are being used across world in different types of mental health settings, and levels of care. The purpose is primarily focused on facilitating feelings of safety and teaching self-regulation, which is related to sensory modulation and sensory processing (Ayres, 1979, Miller, 2006).

The “sensory modulation” room, stemming from the work of Ayres (1979), is a term used to describe a different type of sensory room than those developed for the skilled use of Ayres’ Sensory Integration® approaches (Parham, et al.). A sensory modulation room may be used by a broad array of interdisciplinary staff who are trained to use the equipment and physical space to foster feelings of safety, security, comfort and to facilitate therapeutic processes supporting development and recovery (e.g., trauma-informed prevention and crisis interventions) (Champagne, 2003, 2006b, 2010).

Generally, the term sensory modulation refers to the ability to take in sensory information and respond in a graded and adaptive manner (Ayres, 1979; Miller, 2006).

Sensory modulation is the regulatory component of sensory processing and, thereby, sensory modulation rooms contain furnishings, equipment and other items that may be used for calming and/or alerting purposes—depending upon each individual child’s needs (e.g., a child experiencing depression without anxiety may need uplifting opportunities rather than calming).

Sensory modulation rooms are collaboratively created by consumers and staff, have a broad variety of names, and are designed in a manner that is consistent with the mission and goals of the consumers, organization and stakeholders (Champagne, 2003, 2006a, 2006b, 2011). Ultimately, the skilled and responsible use of sensory modulation rooms in mental health settings is improving the quality of care provided, by changing the culture of care (Champagne & Stromberg, 2004; LeBel & Champagne, 2010).

In sensory modulation rooms, furnishings and strategies that are either calming or alerting are available to consumers for self-soothing, distraction, mindfulness, comforting and other self-regulating purposes. When used in this manner, sensory modulation strategies foster the developmental process, prevent crises, build skills and promote recovery.

Sensory modulation rooms may be designed in different ways and used independently or with inter-disciplinary staff supervision. These spaces may be kept locked or unlocked, depending on the safety of the room contents and population served. Some units have a varied of sensory modulation

rooms, sensory modulation corners and sensory carts.

Several programs with limited physical space have turned quiet rooms into sensory modulation rooms in an effort to shift the culture of care to one that is trauma-informed and sensory supportive.

Sensory modulation rooms are often referred to by a variety of different names, such as sensory rooms, comfort rooms, Zen rooms, Chilleville, and serenity rooms, however, the name and development of the space should be collaboratively determined, supportive of the consumers and programming offered, and must evolve over time (Champagne, 2006b, 2008).

Sensory integration rooms

Sensory integration rooms are therapeutic spaces used by professionals with specific training in Ayres sensory integration® assessment and therapeutic intervention approaches, which includes sensory modulation. Ayres first introduced sensory integration (Ayres Sensory Integration® [ASI®]) as a therapeutic frame of reference in the early 1960's (Ayres, 1979). Sensory integration rooms are often lined with mats and large cushions for safety purposes, contain climbing, jumping and suspended equipment, and other items that are used for the treatment of specific sensory processing-related issues and disorders having a negative impact on functional performance.

Sensory integration rooms are created by the professionals using the space, often have a gym-like appearance, and only contain the equipment the therapist is specifically trained in using. Advanced training and certification in ASI® assessment and intervention processes is typically obtained by those using the ASI® approach (e.g., OT, PT, SLP) (Parham et al., 2007).

Multi-sensory environments

Snoezelen rooms or multi-sensory environments have been more recently categorized as multi-sensory environments (American Association of Multi-sensory Environments, 2008). In the past, the term multi-sensory environment (MSE) was used to describe both Snoezelen and sensory modulation style rooms, but recent movements have delineated the term MSE to be used to more specifically describe Snoezelen style rooms and equipment.

Snoezelen or multi-sensory environments are artificially created spaces containing host of varied types of technical equipment. Equipment may include: disco balls, fluorescent lighting, large bubble lamps with interactive switches, fiber optic sprays, lighting displays, and more. The equipment used in these rooms tends to be expensive and often requires ongoing staff supervision.

It is important to understand the similarities and differences between the different types of sensory rooms when considering the kinds of equipment and training that will be necessary to

implement the use of the space, the ways the room may be utilized, and when evaluating or researching outcomes. Additionally, the sensory room categorization is not rigid, meaning that *combo spaces* may be created and used, employing varied types of equipment and guidelines for use, provided staff are trained in the available strategies and equipment.

Promoting peace: creating nurturing and healing environments

Many child and adolescent programs that have significantly reduced the use of S/R attribute some of their success to the use of sensory modulation rooms or spaces painted in soft colors and filled with furnishings and objects that promote feelings of safety, relaxation, and healing (NETI, 2003; Lebel & Champagne, 2010). Objects include soft stuffed animals, calming musical selections, materials for writing and painting, stress or squeeze balls, weighted blankets, portable rocking chairs, and sound machines. These programs provide ongoing training for staff members and children on how to use the space and how make changes in the rooms as needed based on the changing needs of the clients they serve (Champagne & Stromberg, 2004).

Sensory modulation room outcomes: case examples

Quality improvement studies on the use of the sensory modulation room in one acute care setting found that it had positive effects on 89% of the clients in 2003 and 85% in 2004. Staff received comprehensive training on the use of sensory approaches and the sensory room. During the year that the first quality improvement study was conducted, this facility's restraint rates decreased by 54% (Champagne & Stromberg, 2004). Programs that implement sensory modulation rooms find them to be effective in helping children to learn self-soothing, distraction, and emotion regulation strategies. Children and family members have also provided similar positive feedback to programs about the utility of sensory modulation rooms.

Gayle Bluebird, R.N., created a sensory room she called the "comfort room" at Atlantic Shores/South Florida Hospital in 2001 for the purpose of providing a calming space. This is in accordance with the sensory modulation room categorization. She conceptualized it as a room to "provide sanctuary from stress... and/or... a place for persons to experience feelings within acceptable boundaries." Ms. Bluebird found that comfort rooms are a "preventive tool that may help to reduce the need for seclusion and restraint" (NETI, 2003).

Getting started with creating a sensory space: equipment and setup

(Champagne, 2006a, 2008, 2011)

How to begin—It is important to consider the ages of the children in the program, their diagnoses and symptoms, their current and past experiences, their cultural backgrounds, and their cognitive, emotional, psychosocial, sensory, and physical abilities and limitations when developing the room. It should be consistent with the philosophy of the program and also safety regulations.

Room size—Although it is optimal to have a large room, it is reasonable to begin with a small space or even a sensory corner, if necessary, due to space or financial limitations. Large rooms can be divided into different areas, themes and stations, but smaller rooms may create a cozy space.

Themes—Programs should create clear and distinct rooms for specific treatment purposes. For example one space may be used for relaxation and calming purposes (glider rocker, bean bag chairs, calming music, reading, or writing), while another space may be more active (rock wall climbing or gross motor activities). There are a variety of themes that can be implemented, such as exploration (art supplies, therapeutic books and magazines, tactile objects, instruments), or seasonal (use of seasonal themes, orientation boards, seasonal objects). Be creative with themes, but, if possible, remember to be consistent with one distinct theme for each room.

Availability—The sensory room should be readily available and easily accessible for all staff members to use with the children.

Work in progress—Most sensory rooms are works in progress and develop in stages. Programs do not have to start off with an elaborate room or state-of-the-art equipment. The most important factor is to develop a plan, acquire the space and begin. The room may take some time to evolve, but the process will give staff and children a chance to participate.

Group effort—Whenever possible, service providers should solicit input from staff members and children at all phases of the sensory room development. There are a variety of ways to get this input, such as surveys, group planning and decorating sessions, team meetings, sensory room committees, signup sheets, development of wish lists, or “brainstorming” sessions with children and staff members.

Considerations for all clients—As staff and administrators begin to recognize the effect of having a sensory friendly environment, they often begin to consider the potential for changes throughout the entire environment.

Caution and safety considerations—Many facilities require items to be fire resistant, latex-free, generally safe and washable. Research the requirements specific to your program before purchasing equipment.

Policies and procedures—It is important to develop policies and procedures for the use, cleaning, and maintenance of the

room and equipment. Developing policies and procedures is recommended, regardless of the type of sensory room, to ensure safe use of the space, adherence to infection control standards, proper maintenance, and to communicate the sensory room use procedures that may be similar or unique to each setting.

Purchasing equipment and supplies—There are numerous vendors listed in the resource section, although the following suggestions may help to decrease costs. If staff members think creatively, there are a number of options, including:

- Dollar stores
- Novelty catalogs
- Toy stores
- Hand-made items
- Donations of supplies/wish lists
- Department stores
- Science and learning stores
- Rehabilitation and sensory equipment vendors
- Garage sales

Funding—Grants, fundraisers, donations and organizational funding may be financial sources for program that want to develop a sensory room.

Developing a sensory room

To develop these spaces, treatment programs require training and methods for evaluation. Guidelines for development include the following (Champagne, 2003, 2006a, 2008):

- **Lighting**—There are various types of lighting that can be used to create a soothing atmosphere in a room, including full-spectrum lighting, bubble lamps, colored light bulbs, projectors, and fish tanks. If there are windows in the room, blinds help modulate the amount of sunlight or outdoor distractions. Dimmer switches are helpful so that children and staff can vary the amount of light in the room.
- **Noise**—A quiet environment is best unless recorded music, musical instruments or other types of sounds (sound machine) are preferred or are part of the theme of a particular room.
- **Distractions**—Distractions must be kept to a minimum when a room is being used for relaxation purposes. A visually rich environment that is not over stimulating or complex is optimal in the general layout of the room, and other lighting options may be added as desired. However, when distraction or stimulation is assessed to be therapeutically appropriate, there are many options to create a more active environment, such as mobiles, projectors, bubbles, music, instruments, bubble lamps, rock wall climbing, and opportunities to explore tactile objects. Many of the stimulating and distracting items

will need to be put away when the room is going to be used for calming purposes, and the program must ensure that staff members continually assess the individual needs of the children using the room.

- **Temperature**—It is important to be sure the room is a comfortable temperature at all times.
- **Electrical availability**—If a sensory room is going to offer items that require electrical outlets, it is important to take the availability of electrical outlets into consideration as part of the planning process.
- **Room arrangement**—The room arrangement will vary depending upon the theme of the room. It should appear balanced and reflect the chosen theme. Furniture and equipment should be arranged based on comfort and safety and distributed evenly throughout the treatment space. Some rooms may be large enough to accommodate different stations making a variety of themes available within one room.
- **Seating**—A variety of seating options should be available. Rocking chairs, glider rockers, a small couch, large bean bag chairs, a swivel chair, large therapy balls, and, if possible, a swing, are great seating ideas. Various seat cushions and different types of foams, such as egg crate foam, are useful items that provide different kinds of sensory input.
- **Ventilation**—It is imperative that the room has adequate ventilation and air purifiers are always beneficial.

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- **Color**—Color has a powerful impact on mood and emotions and is an important consideration when creating environments that promote health and healing. The color choice for the room is dependent upon the theme of the room. Light to moderate color choices rather than bright and intense shades generally help most people feel more organized. Sponge or rag painting techniques are inexpensive ways to add texture to the color scheme. The use of posters and wall murals are also cost effective ways to add color and theme intensity. The following is a list of common descriptions of colors and general recommendations and precautions (Howard, 2000; Champagne, 2003b; 2006).
 - **Green** is often referred to as the universal healing color because it symbolizes nature, harmony, balance, and tranquility. It may be used to promote thoughts of nature, healing and compassion.
 - **Yellow** symbolizes wisdom, clarity, and self-esteem. It is often used to promote a healthy nervous system, clear heads, and encourage personal power and confidence. It should be used cautiously because it may be over-stimulating for some people.
 - **Blue** symbolizes truth, serenity, harmony, peace, calm, and spirituality. It is considered to have a soothing effect, but it may also elicit feelings of depression or sorrow in some individuals.

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- **Red** symbolizes love, power, reaching goals, courage, self-confidence, and energy. It is considered to be energizing and may facilitate the activation of the adrenal glands, which can elicit feelings of anxiety, aggression, or agitation in some individuals.
 - **White** symbolizes truth, spirit, purity, faith, and perfection. It may be alerting and very unsettling to some individuals, because it often carries a sterile, institutional or authoritative association.
 - The use of projectors, lighting equipment, murals, and sunglasses with different colored lenses, bubble lamps, fish tanks, posters, colored scarves, glitter wands and colored furniture are general examples of ways to add/modify both color and lighting options in a sensory room.
 - **Staff Training**—All staff using sensory rooms must receive proper training for the use of the space and ongoing trainings to enhance skills as the space and the items offered change over time.
 - **Updating**—It is important to update sensory rooms over time and to ensure that they are properly maintained.

Summary

Enhancing the physical environment is essential to creating more nurturing, healing and trauma-informed culture of care within mental health settings. Sensory rooms are currently

being used internationally, among a variety of populations and across levels of care, to help accomplish these goals. As part of this process, it is important to understand the purpose of the different types of sensory-focused treatment rooms and to be certain that the type of sensory room or environmental enhancements implemented are those that will be used safely and responsibly by consumers and staff.

Ultimately, environmental enhancements, such as sensory room development and use within mental healthcare settings, provide a therapeutic physical environment that: (1) offers a sense of safety and security; (2) supports therapeutic relationships and treatment goals; (3) offers a larger variety of interventions and tools for staff members; and, (4) creates new learning opportunities to foster child development and the recovery process. (Champagne, 2006, 2008; LeBel & Champagne, 2010).

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Physical Environment

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