The Design of Psychotherapy Waiting Rooms

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The Design of Psychotherapy Waiting Rooms

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Abstract

The purpose of this study is to understand the main features and design elements that are favored in a psychotherapy waiting room setting. The study investigated a sample of 20 psychotherapy waiting rooms in Southeastern Connecticut and Rhode Island, as well as the positive and negative factors that contributed to comfort and quality of care ratings made by the participants. There were two parts to this study. In the first part, 12 psychotherapists in southeastern Connecticut and Rhode Island agreed to be interviewed and have the waiting rooms (20 in total) of their practices photographed. In a within-subjects design, the second part of the study recruited 225 participants from Amazon Mechanical Turk to answer a series of questions about these 20 waiting rooms. Factor analytic results showed that waiting rooms that were more welcoming and comfortable as well as large and spacious were rated higher on the quality of care and comfort in the environment anticipated by the participant. Additionally, waiting rooms that were cramped and crowded rated low on perceived quality and comfort of the waiting room.

There has been little research conducted on psychotherapy waiting rooms. The findings of the current study show that practitioners could benefit from understanding the qualities of the waiting room environment that users prefer. This research, therefore, can be used to inform the design of psychotherapy waiting rooms to enhance healthcare experience.

Keywords: psychotherapy, waiting rooms, environmental comfort, environmental quality, design
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The Design of Psychotherapy Waiting Rooms

There are many negative connotations associated with waiting rooms, because waiting is typically unpleasant for people, particularly in the arena of healthcare where people are anxious about their well-being. Studies have examined waiting rooms in hospitals and doctors’ offices, but there is little known literature on waiting rooms in psychotherapy offices. Waiting rooms in psychotherapy offices may affect clients’ perceived quality of care and their comfort level. In addition, given the likelihood that clients will make repeated visits to the same waiting room, the potential impact of the waiting area may increase. Therefore, it is important to study waiting rooms and potentially enhance the experience of waiting for psychotherapy clients.

Historically, healthcare design has focused on functionality and cost rather than evidence-based design. Evidence-based design is “the process of basing decisions about the built environment on credible research to achieve the best possible outcomes” (“EDAC: Evidence-based Design Accreditation and Certification,” 2019). To gain insight into what variables in the waiting room (built environment) promote psychological well-being and reduce the amount of stress the patient experiences while waiting, it is necessary to consult the previous literature.

Theoretical Approaches

Proshansky’s theory of human behavior and design. To begin the analysis of psychotherapy waiting rooms, it is important to understand the importance of environmental psychology in relation to the design of psychotherapy waiting rooms. Environmental psychology focuses on human behavior in relation to the physical setting. Harold Proshansky, one of the founders of environmental psychology, demonstrated there is a direct influence of the
environment on our behaviors and cognitions in a predictive way. Therefore, when designing a psychotherapy waiting room, to reduce psychological stress, it is important to consider the impact of the waiting room environment on the individual. When Proshansky was asked to design a psychiatric facility that had a therapeutic atmosphere and would benefit treatment outcomes, he began his research by mapping an already functioning psychiatric ward (1970). Proshansky and his fellow researchers recorded patient and staff activity on a map of the psychiatric ward and documented interactions such as: sitting alone, personal hygiene, talking, standing alone, pacing and reading, as well as the length of interaction and the number of individuals in the interaction. Proshansky found three themed areas throughout the map; social areas, isolated passive areas, and isolated active areas. From Proshansky’s analysis of the psychiatric ward, he postulated a number of assumptions related to human behavior and physical design. The first four assumptions are as follows;

- Assumption one: “Human behavior in relation to a physical setting is enduring and consistent over time and situation; therefore, the characteristic patterns of behavior for that setting can be identified” (Proshansky et al., 1970, p. 29).

- Assumption two: “Human behavior in relation to physical setting reveals diversity over space at any given moment and continuous variability in any given space over time” (Proshansky et al., 1970, p. 31).

- Assumption three: “The physical setting that defines and structures any concrete situation is not a closed system; its boundaries are not fixed either in space or in time” (Proshansky et al., 1970, p. 32).
Assumption four: “Behavior in relation to a physical setting is dynamically organized: a change in any component of the setting has varying degrees of effects on all other components in that setting, thereby changing the characteristic behavior pattern of the setting as a whole” (Proshansky et al., 1970, p. 32).

The first assumption focused on the stability and regularity of human behavior in each specific environment. Human behavior becomes a stable pattern in specific physical settings, for example in a setting that was furnished nicely and was deemed a social area, there were more interactions between patients and staff. Each behavior in a physical setting is resistant to change and is constant over time, attributing specific behaviors to a setting. For example, the bedroom is where individuals go to sleep so sleeping is a behavior attributed to the bedroom. Also, an important part of this assumption is that the use of space is not always a reflection of its function. For example, some patients ate dinner in the bedrooms despite their main function as sleeping spaces. Still, the frequency of the behavior (eating in the bedroom) was constant and consistent throughout the research. The second and third assumptions give credit to the stability and regularity reviewed in the first assumption but recognize that a physical setting is not concrete or fixed. If a patient wants to read in a specific area of the psychiatric ward but another patient is present and creating noise, then the patient in question cannot read undisturbed in that setting any longer. The physical design of an area limits an individual's choice of what that person can do in that area. Additionally, behavioral responses in a setting are characterized by a change in a setting. For example, the time of day, the presence of other people in the area, the wall decor, the type of furniture, and the amount of light, are not fixed factors in a setting and can be constantly
changing. These changes are outside individuals’ control and can change the type of behavior individuals exhibit in the setting.

The fourth assumption describes that behavior in a physical setting is organized but dynamically, meaning it is open to change. Mainly, if there is a change in any component of the setting there is an effect on all other components of that setting. For example, in the psychiatric ward, the end rooms of the hallways were always empty. The environment of the end rooms was not supportive of behavior because that area was extremely hot, unfurnished, and isolated from the other areas of the ward. The researchers added new furnishings to encourage seating, regulated temperatures, and added drapes to the windows and found that the changed components of the end rooms increased interactions with patients and staff. These assumptions demonstrate an important aspect of environmental psychology in that a physical setting is interdependent. Interdependency refers to the influence each part of the environment has on another part of the environment. In reference to a waiting room setting, the comfort and quality the patient perceives regarding the waiting room is influenced by factors including size, the number of other people present, the time of day, and the type of furniture.

Understanding that a physical setting is interdependent is important when you are planning to create a physical space for a certain function or when you are trying to change the function of a space. Proshansky developed his assumptions when he was asked to design a psychiatric facility that had a therapeutic atmosphere and an environment that stimulated social interaction. Proshansky found that the psychiatric patient is a component of a psychiatric hospital environment and that you cannot simply focus on the physical environment but must also consider the social, personal, and physiological environment. Proshansky’s assumptions are
important for the current research because a waiting room’s function is to provide a comfortable place for the patient to wait. In order to design a waiting room that promotes the quality of the practice and comfort, specific characteristics that can enhance the setting of the waiting room need to be understood.

Theory of supportive design. Ulrich (1991) has provided a theoretical framework to guide healthcare design, but there are other relevant variables that he does not directly touch on such as territoriality and personal space that are important in environmental psychology. Ulrich outlines three main factors that should be considered when designing a healthcare facility: “sense of control, access to social support, and positive distractions” (Ulrich, 1991, p. 99). When these three factors are ignored, stress levels increase and suppress the process of healing. It is also important to keep in mind that supportive design should not just target patients but also visitors (social support) and the healthcare staff. This research will look at these three main factors in healthcare design and assess the importance of each in waiting room design. Outpatient psychotherapy offices have often been overlooked in research, but there has been research on related topics such as outpatient health centers and psychiatric ward design. Health centers can be used as a comparison to psychotherapy offices because patients go through the same process to see their provider. One of the physical spaces in that process is the waiting room, which is the main focus of this research.

Positive Distractions

Waiting rooms are mentally draining for clients and can cause distress for them, which has a high emotional cost. Therefore, it is important for waiting rooms to have positive distractions (Ulrich, 1991). When individuals are deprived of sensory information, it can become
stressful, leading the individual to focus predominantly on inner thoughts and worries. Ulrich defines positive distractions as “an element that produces positive feelings, effortlessly holds attention and interests, therefore may block or reduce worrisome thoughts (Ulrich, 1991, p. 24). Positive distractions prevent patients from focusing on their mental and physical health and can provide a mental break while waiting for their appointment. Some positive distractions may work better than others; these include plants/nature, smiling and laughing faces, and pets (Ulrich, 1991), although there are also ambient considerations (such as lighting) that make a contribution.

A welcoming atmosphere for the patient can be created by considering light, sounds, and sights (ambient environment) and through the design and setting of the environment (physical environment) to help enhance both patient and staff comfort in the waiting room. An example of these features is Bellevue Place, a premier psychiatric facility that hosted Mary Todd Lincoln (President Lincoln’s wife). Bellevue Place was a campus setting that focused on “strong connections to nature, patient autonomy, choice of setting, single patient room, and natural light/materials” (Anthony & McCaffrey, 2018, p. 340). Bellevue Place created a comfortable environment that fostered recovery for the patient. Additionally, waiting rooms in healthcare practices that are “nicely furnished, well-lighted, and contained artwork” (p. 350) were rated higher on quality of care and comfort expected in the environment than waiting rooms that did not consider those factors (Arneill & Devlin, 2002). Décor (attractive lighting/colorful) and neatness have also been important to the patients (Arneill & Devlin, 2002). Waiting rooms that are characterized as dark and cold are rated the lowest on quality of care and comfort (Arneill & Devlin, 2002). Positive distractions are helpful in reducing anxiety felt by patients in a waiting room setting (McCuskey Shepley, 2006). Patients with cancer found having access to TVs
helped serve as a distraction to the anxiety they were feeling while waiting (Catania et al., 2010, p. 393).

Not all visual stimuli produce positive distraction. It is also important to consider the negative impact television can have on patient stress. Blood donor patients felt lower stress without the presence of television than when there was a television. Additionally, if there was lower stimulation in the physical setting the patients felt even less stress (Ulrich et al., 2003). This outcome demonstrates the circumstances under which television can increase the level of stress experienced by patients; lower stimulation on the TV such as nature, which also lowered pulse rate (Ulrich et al., 2003), or no TV at all, which might be better than providing a T.V. Also, due to the theoretical perspectives on stress-reducing effects of the environment, inability to control the environment (i.e., no control over the channel and volume) could increase stress levels for the patient (Ulrich et al., 2003). Therefore, if you have a TV in your waiting room as a positive distraction, it is important to allow patients waiting to have control of the TV. In her book on doctor’s offices, Devlin (2015) presents an image of the location of the television in the waiting area at the Women’s and Infants Center for Reproduction and Infertility in Providence, Rhode Island (p. 108). The design solution in this instance was to place the television in a niche isolated from the rest of the waiting room, providing access for those who desired it, but not overwhelming the space. Such a design solution is one compromise regarding the role of television in waiting areas.

Positive distractions are important for all age levels and can especially be used to alleviate the stress of patients who are children. Toys and large Disney and Star Wars stuffed animals as well as interactive games have been included as positive distractions for children. The
movie “Inside Out” (which uses personified emotions to tell the story of a developing child who has moved to a new town) influenced a group of clinicians to “design different interactive stations throughout the practice” so the younger patients were able to identify and understand “joy, sadness, disgust, fear, and anger,” which are the main emotions portrayed in the movie (Novotney, 2019, p. 1). This aspect was a great addition to the waiting room because it helped the children experience their emotions and helped encourage clients to talk, which made everyone feel more relaxed and welcomed.

Additionally, therapy dogs are used as positive distractions, especially for children in the waiting room. The patients’ stress levels were lower in the waiting group that interacted with the therapy dog than in those who did not interact with the therapy dog (Marcus et al., 2012). The stress data for patients and family members who waited with the therapy dog showed significant improvements from their original levels of stress. It is also important to note that in this study the majority of the patients had either a form of depression or anxiety (Marcus et al., 2012). While it is not feasible for all psychotherapy waiting rooms to have a therapy dog to interact with the patients while they wait for their appointment, the presence of a therapy dog as a positive distraction lowers stress levels for both the patients and accompanying family members.

The role of positive distraction in waiting rooms can also be implemented through other aspects of design. In the article, “Glitzing up the Waiting Room,” Goldberg (2019) talks about how interior design is becoming a significant part of healthcare. The Swedish Health Clinic in Chicago spent 1.5 million dollars on the decoration of its health facility, which has wall-to-wall windows that let in an abundance of natural light and is decorated with nature-inspired photographs. In addition, a goal in the healthcare facility was to create a community feel. "If
you're in the neighborhood and you want a place to sit down, have a cup of coffee and connect to Wi-Fi, we're going to welcome that," Guaccio, the CEO of the Swedish Health Clinic says. "It becomes more of a community gathering place than just a place where you see your doctor" (Goldberg, 2019, p. 1). While this is an elaborate example of healthcare design, it demonstrates the importance of creating a welcoming atmosphere for patients to feel comfortable waiting for their appointment. Waiting time should be an active experience for the patient, this helps the waiting time pass quickly. Positive distractions are important for patients so they can decompress from the constant worry of their health and focus on things outside of the healthcare setting (Patientpop, 2019).

An important source of positive distraction is the natural environment. The interior design of the waiting room needs to incorporate aspects of nature. The biophilia hypothesis was posited by biologist Edward Wilson (1984) and describes the strong biological basis for why humans value nature. The hypothesis indicates “the human identity and personal fulfillment somehow depend on our relationship to nature” (Kellert & Wilson, 1993, p. 42) and that the absence of natural elements (built environments and health-care settings) interrupts our self-identity, which in turn causes discomfort and anxiety. Natural elements, specifically in art, have been shown to reduce symptoms of stress and anxiety in patients and can target certain mental illnesses such as post-traumatic stress disorder (Nanda et al., 2010). Natural sounds, daylight, and a more colorful waiting room decrease patients’ physical symptoms of anxiety, and influences of nature have a positive effect on the patients’ anxiety (Bazley et al., 2016). Nature has been shown to be a stress reducer for its restorative effects on the patient, and the experience
of the natural environment alleviates stress and aids in the recovery from stress (Kaplan, 1984, 1995).

Relatedly, the addition of windows in a physical setting is beneficial especially if the window looks out to nature. The view of nature through the window helps with the therapeutic process and recovery time (Ulrich, 1984; Verderber & Reuman, 1987). For example, natural settings have less stimulation than urban/built environments and when there is less stimulation or arousal there is a reduction in anxiety and stress for the patient (Berto, 2014). Restorative environments are also beneficial for concentration, which can help individuals clear their minds (Kaplan et al., 1998) and reduce stress.

The type of natural sound is also important to consider in waiting room design. To improve the “tranquility” of a waiting room, adding signs that say “Quiet Zone” can reduce the decibel level of a phone conversation and adding natural water sounds can increase the level of tranquility experienced by patients (Watts et al., 2016). The babbling of a brook or waves crashing on the beach is much more soothing than if the sounds of a large fountain of water or waterfall noise were played in the room.

Beukeboom et al. (2012) looked at different stress-reducing effects of real and artificial nature in the waiting room. Patients in the waiting rooms with either the real or the artificial nature reported significantly lower levels of stress than did patients in the waiting room without nature. There was no difference between the effects of artificial and real nature, which revealed that having artwork of nature is as beneficial as having real plants in the waiting room, which was also supported by Nanda et al. (2008). The addition of the natural decor raised the level of attractiveness of the waiting room and reduced the negative psychological feelings of the patients.
(Beukeboom et al., 2012). Nature-themed decor in the waiting room is important whether it is artificial plants or paintings of natural landscapes for the patients.

The positive effect of artificial plants has also been demonstrated in an oncology waiting room. Blaschke et al. (2017) hung artificial greenery on the walls and placed plants around tables and chairs on the floor. The artificial green features that were added to the waiting area positively affected patients’, caregivers’, and staff moods and experience in the waiting room. A majority of the patients were grateful for the addition and felt it added a “caring hospital culture” (Blaschke et al., 2017, p. 57) to the environment. This study reaffirms that artificial nature can be as effective as real nature for both patients and staff, and using nature decor reflects a caring attitude, which helps reduce the stress the patients feel when waiting. In addition to plants, materials such as wood and stone are important in enhancing restoration in a built environment (Kaplan et al., 1998).

Light helps communicate wellness in the waiting room for patients through control and interactions and is also used as a positive distraction. Lighting helps foster and stimulate conversation (Gifford, 1998), specifically in relation to brightness. In one study, more conversation was stimulated in bright light settings and intimate conversations were greater in the brighter light rooms (Gifford, 1998), although Gifford (1998) focused on written communication between established friendships. In other research, Miwa and Hanyu (2006) found that dim lighting was more beneficial for stimulating intimate conversation than was bright lighting. Additionally, the patients disclosed intimate details more frequently when they were in dim lighting than if they were in a brightly lit room. If a design team wants the waiting room to foster conversations between family members and staff then consideration of the type of
lighting is important. Both bright lighting and dim lighting have been shown to foster communication, but it is important to focus on natural light since it is most important in improving mood (Benedetti et al., 2001; DeAngelis, 2017). In order to also provide a sense of control (Ulrich, 1991) for the patient, there need to be a variety of lighting types for different activities in the waiting room. Therefore, in addition to natural light, there need to be lamps placed around the room for reading and writing that can be turned on and off, giving the patients control of their setting (Devlin, 2015). The waiting room should also provide blinds or curtains for the window to help with glare or for the patient to close if desired (Devlin, 2015).

The layout and placement of decor is another important feature of waiting room design with implications for positive distraction. Randomly placed decor that seems to lack organization translates to a lack of care for design (Watts et al., 2016). It is important to consider the way the design is laid out in space. Additionally, in a professor's office, students found a messy office to be off-putting and felt their appointment/conversation with the professor would be rushed. The students felt more comfortable and welcome when the office was organized and included living things such as plants (Campbell, 1979). A series of studies by Nasar and Devlin (e.g., Devlin & Nasar, 2012) evaluated the impact of softness/personalization and orderliness in psychotherapy offices on patients’ perceived quality of care, comfort, and therapist qualifications. The researchers found that as order and personalization increased in the psychotherapy office, perceived quality of care and comfort levels improved. Softness/personalization had a strong effect on the perceived quality of care and comfort, and while orderliness was not as strong, it was still important. Results demonstrated the importance of comfort and orderliness on the judgment of a psychotherapy office, which may also be relevant to psychotherapy waiting
rooms. Recently, focusing on psychotherapy waiting rooms, Liddicoat (2020) studied clients’ perspectives on psychologically supportive dimensions of architectural space and found that over-personalized spaces had a negative effect on clients’ psychological well-being. Highly personalized spaces inhibited the client from being able to freely settle into the space, which created discomfort for the clients. The study found that an appropriate level of personalization did have a positive effect on psychological well-being.

**Sense of Control**

*Privacy.* Freedom of choice is an important factor specifically in relation to behavior characteristics in a physical setting. Proshansky discussed three main concepts of privacy that are important to patterns of human behavior (1970). Humans are goal-oriented in all instances and situations, and individuals enact a specific behavior in a specific setting (in relation to their environment) to reach a certain goal. A person’s need or goal always involves the individual’s physical environment. The individual is a physical component of the physical environment and to achieve their goals they must manipulate the environment and their behaviors. The last concept is important to freedom of choice and explores how in any situation, the individual organizes their environment so that they can maximize their control of the environment. For example, changes in the light, the sound, the temperature, or the presence of people in the room can either increase or decrease the individual’s freedom of choice.

Patients cannot control their physical and mental health nor the pain and symptoms associated with their illness and therefore already feel a loss of control, which is increased when visiting a waiting room. Therefore, it is important to consider the sense of control (Ulrich, 1991) when designing a psychotherapy waiting room. Additionally, individuals with mental health
issues, particularly depression, have a harder time creating the illusion that they have control of the environment around them (Taylor et al., 1988) and need to feel there are aspects of the waiting room that they can control. In addition to factors such as light and sound, to enhance the patient's perception of control, the waiting room should provide a variety in the type of seating for the patients (Patientpop, 2019). There should be areas with multiple chairs around a table for families as well as single spaces for people to do work (e.g., with a computer) when they are absent from work in order to keep their appointment. Giving the patients back a little control over where they can sit will give them a more positive experience in the waiting room. Malkin (2002) created a formula to help estimate the number of seats needed in a waiting room. Although the formula was created for physician/healthcare facilities it can be used to help determine the number of seats in a psychotherapy waiting room. The formula accounts for the number of patients seen by the facility in an hour, as well as their social support system (such as family and friends). Likewise, Groshek (2016) discussed the importance of the reception desk as the center of attention in the waiting room and designing the waiting room so the reception desk is easily accessible for all patients (Altman, 1981).

The seating in the setting should be stylish but comfortable. The healthcare center should not sacrifice comfort for style but there should be a variety in the type of seating so clients can choose where they would like to wait (Proshansky et al., 1970). There should be a variety of types of seating between single chairs, and benches for all types of body sizes (e.g., bariatric seating) and individuals. It is recommended to use decor that you would use in your own home. Hospitals and healthcare facilities are known for having generic and sterile design but if the decor reminds patients of “home,” they would feel more welcome and have a more positive
experience. The Hazelden Betty Ford Treatment Center, which is a not-for-profit alcohol and drug addiction center, was created by former first lady Betty Ford; she herself struggled with addiction and wanted to help foster recovery. The center carefully considered the design of the treatment facility and used comfortable materials and furniture that resemble a residential home to increase the self-worth of the patient (Anthony & McCaffrey, 2018). Additionally, the treatment center uses high-end materials to show that patients are valuable and focuses on giving patients the freedom to make choices. Sanders and Lehman (2019) also looked at clients' preference for a counseling room through a spatial and design lens. The study found that the main aspect of design that influences clients’ thoughts and feelings was clients’ desire for both emotional and physical comfort. This comfort was accomplished by creating a welcoming and homey environment. Creating a more homelike and comfortable environment can enhance the autonomy patients feel as they feel more welcome and in control of their own actions. This type of environment was also shown in Bellevue Place, which was previously discussed, and housed Mary Todd Lincoln for a period of time starting in 1875. The creators of Bellevue Place were sensitive in how they designed their setting, specifically the bedrooms the patients occupied. The bedrooms were single rooms that stressed comfort, were private, and had a degree of noise control (Anthony & McCaffrey, 2018). Bellevue Place was a psychiatric facility that early-on demonstrated the importance of privacy.

Psychologist Alan Westin (1970) has delineated four types of privacy: solitude, intimacy, anonymity, and reserve. Solitude is giving the individual freedom from the observation of others; therefore, in a waiting room, creating spaces that are separate from the primary sitting area. Intimacy is similar to solitude but in this situation, privacy is sought by a group of people such as
a family or a couple who want to avoid observation. This type of privacy is important because many clients bring friends and relatives as social support, and these individuals also need to feel comfortable in the waiting room setting. Anonymity is a type of privacy where an individual can be free from identification. Going to therapy is a personal and private decision, and clients should be given the choice of remaining anonymous to others in the waiting room during their visits to the therapist's office. To help increase this type of privacy, some waiting rooms have separate entrances and exits (as well as spaced-out appointments) so the clients never meet each other. The fourth type of privacy is reserve, which is the state of privacy that allows each person to hide certain aspects of themselves that they believe are too personal to share. This type of privacy is extremely important in regard to waiting rooms in a psychotherapy environment because as described earlier, therapy is a personal experience and is an intimate part of the client’s life.

Another important factor that contributes to the importance of privacy in a psychotherapy waiting room is the stigma surrounding mental health. Stigma surrounding mental health issues is common and can greatly impact the waiting room experience. Individuals reported that they would feel uncomfortable if they had to share a waiting room with an individual who had schizophrenia or severe depression/anxiety, and 10% of individuals reported that they would change their current practice if it included treatment for mental health care (Magin et al., 2013). The prevalence of mental health stigma is often due to prejudices surrounding certain mental health issues. People with schizophrenia are commonly perceived as dangerous and unpredictable (Crisp et al., 2000), while individuals with other mental health issues are described as hard to communicate with and talk to (Crisp et al., 2000). This negative opinion associated
with mental health issues increases the stress and social isolation felt by the patient, which
demonstrates the importance of creating a comforting and private place for the patient to wait in
a psychotherapy setting, without feeling judged.

**Territoriality.** Humans’ need to control the setting they are in is described through the
concept of territoriality. When individuals enter a setting, they want to be able to control their
specific area or location. Irwin Altman (1981) defined four levels of territoriality. Primary space
is when the individual is able to control everything within that space, secondary space describes
an area an individual can frequently control, tertiary space is where every individual has an equal
right to the territory, and public space is the absence of territorial spaces. Territorial definition is
important in relation to psychotherapy waiting rooms because in psychotherapy, the patient will
be in the waiting room on multiple occasions and will choose a spot that is comfortable for them
and continue to sit in that spot each time they come in for therapy. In order to support a number
of patients, the waiting room has to be large enough to create a private territory for the patient if
that is what they desire.

**Personal Space.** Personal space is a conceptual spatial area around the individual that
establishes an individual's relationship with others (Shepley, 2017). In addition to interactions
between family members and patients in the waiting room, patients also interact with one
another. There are four sections of personal space: intimate distance - 0 to 1.5 feet, personal
distance - 1.5 to 4 feet, social space - 4 to 12 feet, and public distance - 12+ feet (Hall, 1969).
These sections of personal space are a necessary consideration in a built environment because
when an individual’s personal space is violated there is an increase in stress and anxiety.
Proxemics is the study of how space and culture are related (Hall, 1969), and consideration of
close proxemics can have great influence over the design of the waiting room. Different cultures and communities tolerate a breach of personal space differently (Evans et al., 2000) so the locations of waiting rooms and demographics of patients they serve are important to consider when designing a waiting room. A study was designed to investigate the types of discussions patients generally had with one another in the waiting room and how conversation influenced the perceived space. The study then looked at how those discussions affected the patients' perceived quality of care, thoughts on wait time, and overall satisfaction with the clinic. During patients’ visits to the clinic, they filled out a survey on the amount of interaction that took place during their waiting times and how it influenced how they perceived the clinic. Overall, the patients’ interaction in the waiting room had a positive effect on overall general satisfaction with the clinic and the patients’ waiting times (Willis et al., 2015).

Although patient interactions can be positive, the interactions can also be negative and adversely affect the mental health of a patient. Kassan (2008) documented a case study looking at the interaction of his patients in the waiting room. He owns a private practice and has a small waiting room where patients see each other when one patient leaves and another appointment begins. One of Kassan’s patients was an incest survivor and needed large personal boundaries and was sensitive to boundary violations. The patient had been going to Kassan on the same day at the same time every week for a number of years, but another patient Kassan began seeing started chatting with the original patient every time between their appointments. This interaction made the original patient angry and uncomfortable, but Kassan could not change the appointment times or address the situation that one client complained about with both patients due to confidentiality. This situation demonstrates how the interaction between patients in the waiting
room can be negative. Kassan concluded the only way to prevent negative interactions between patients was to create an entrance and exit to his office that did not overlap with one another to ensure patients never saw each other. This case study shows the importance of the design of the waiting room and the flow of movement through space. This study is also supported by Liddicoat (2016), who described the importance of privacy and patient confidentiality. Liddicoat recommended that practitioners consider the type of furniture they are selecting for their waiting room “such as winged armchairs or other such private cubicles to protect the identities of consumers, and allow them to not see another consumer, even from behind” (Liddicoat, 2016, p. 1). While the studies demonstrate contrasting opinions on waiting room interaction, they reveal the importance of privacy and confidentiality in the waiting room.

**Access to Social Support**

One of Ulrich’s components and an additional aspect of the waiting room that is often overlooked is creating a comfortable space for the family and friends who are accompanying the patient to the appointment. There are many studies that demonstrate the positive relationship between social support and mental health (Cohen, 1985; Cohen et al., 2000; Kawachi & Berkman, 2001). It is important to create an environment that fosters social interactions for those who want social interactions in the psychotherapy waiting room. It is important to make sure these family members feel at ease because they are likely worried about their loved ones. Corsano et al. (2015) assessed the levels of stress of both the patients (ages 7-15) and the stress of the adults accompanying them. The study demonstrated that “90% of the children experienced happiness and 76% of the children boredom while waiting” (Corsano et al., 2015, p. 1069). The parents who were accompanying the children in the waiting room were the ones who felt stress
and anxiety, but they indicated that their worry was a result of their concern for their children’s health (Corsano et al., 2015). A majority of the adults wanted a stronger presence of positive distractions for both themselves and the children so they, too, could be distracted from their mental stress.

Adults want the waiting room to foster an environment where the adults can feel comfortable talking to one another to share their concerns and stories to help reduce their anxiety. Parents who are waiting for their children in the waiting room during the appointment went from reading and staring straight ahead to talking with one another after a few weeks while their children participated in occupational therapy for sensory integrative dysfunction (Cohn, 2001). The parents were there to support one another because their children were experiencing similar problems in their lives. The parents also reframed their children’s experiences and issues by listening to other parents’ stories and comparing their situation to the situation of others in the waiting room. While social comparison can be negative, in this situation it helped the parents in the waiting room become more comfortable with their own circumstances and overall helped them with the burden they felt having a child in therapy. The study demonstrated the importance of family-centered care and making a comfortable space for both patients and their families. It is important to note that there is relatively little research on social support in relation to the waiting room environment, relative to the amount of research on positive distraction and perceived control.

**Practice Type**

Another principal factor to consider in waiting rooms is the difference in types of practices. Some patients only have access to community mental health centers, whereas others
are able to afford to go to private practice. It is important to compare the waiting rooms to see if there might be differences in public and private facilities due to cost or other factors. Additionally, if one approach is more beneficial than the other, could it be duplicated across different practice types?

One of the different types of psychotherapy offices is a community mental health center. There is limited research on community resource center waiting rooms. In a recent study (Henize et al., 2018), however, the transformation of a pediatric primary care waiting room in a community resource center was evaluated. While primary care is not mental health care, the community resource center waiting room can be used as a surrogate for a community mental health center waiting room. The facility was intended to bridge the gap between the patients and other community resources. The “pre-design” had limited resources such as pamphlets and information on resources around the community to improve the mental and physical health of the patients and for caregivers. The “pre-design” also had very few educational activities for the patients to do while waiting for their appointment. The facility was also extremely busy during peak times, which made it very hard for both the families and the practitioners.

The re-design added more activities for patients and increased resources such as pamphlets and informational documents on clinical and community resources. The re-design improved the physical design of the waiting room, which helped with the flow and privacy of the patients. Specifically, the designers created a more open floor plan for the waiting room and created a designated area with resources visible on different technology screens. The resource corner now had room for a full-time staff member, as well as different community representatives to help families understand the clinical services. Also, the waiting room was
repainted, all the furniture was replaced, and a new registration area was built. This modification increased the efficiency of checking in patients and organizing families during peak times at the center. In addition to helping the caretakers, the re-design built an area for the children to play, painted a sports mural, and added more games. The re-design improved individuals’ overall perceptions of the clinic, and many caregivers felt more welcomed and informed (Henize et al., 2018). The current study seeks to fill a gap in the literature for psychotherapy waiting rooms by documenting the qualities of waiting rooms for different kinds of primary care facilities.

Waiting rooms are also a place for patients to obtain information on health literacy and health promotion. The promotion of community resources in waiting rooms was discussed earlier, but the waiting room is also a space for patients and clinicians to engage with one another and discuss helpful resources. A study was conducted on patient and clinician engagement with health information in the waiting room (Williams et al., 2019). One of the main aspects was looking into the most used media outlet. The waiting room had a TV, magazines, posters, and a bulletin board. On the TV, the facility had Tonic Direct/ Tonic on Demand, which covers topics like chronic disease and lifestyle modifications to help promote health to the patients. The most used media outlets for health information were through TV, and reading and browsing magazines. These findings demonstrate the importance of using the waiting room to promote health and have accessible information for patients. In an age where it may be possible for people to use their phones to look up medical information on a search engine, the resources in the waiting room are still vital in improving the health literacy of patients, and may be particularly so for populations less familiar with searching that uses medical terminology.

**Present Study**
The aim of the proposed study is to build on previous research by examining the impact of the design of psychotherapy waiting rooms on an individual's comfort and perceived quality of care. Previous research has demonstrated the importance of positive distractions (natural environment elements and ambient environment) in reducing anxiety and creating a more welcoming environment in the waiting room. Additionally, the research has shown that the decor can also serve as an important positive distraction in the waiting room, specifically nature-themed artwork and artificial or real plants. It is therefore hypothesized that waiting rooms that are rated higher on comfort and quality will have elements consistent with the literature, such as positive distractions, sufficient space, an ambient environment, and a variety of type/placement of seating.

**Phase One: Psychotherapist Interviews**

**Method**

**Participants**

The participants were men and women from Southeastern Connecticut and Rhode Island who are certified psychotherapists. The total number of therapists was 12, female ($n = 10$) and male ($n = 2$). The participants ranged in age between 44 and 77 ($M = 52.16; SD = 10.2$); one person did not report their age. The majority of the participants identified as White/Caucasian ($n = 10$), one identified as Hispanic and Caucasian ($n = 1$) and one identified as African/American, Hispanic and Louisiana Creole ($n = 1$).

**Materials**
A list of questions generated in relation to previous literature was created (see Appendix A) with a focus on the physical environment of the waiting room. There were 30 questions overall, but one question had two sub-questions. Additionally, while the majority of the questions were open-ended, one of the questions used a rating scale that measured the extent to which participants (i.e., therapists) had a say in designing their waiting room, with 1=no involvement to 7=totally their own decision.

The majority of the questions were derived from Ulrich’s Theory of Supportive Design (1991), which looks at social support, positive distraction, and sense of control. One of the questions was targeted at the evaluation of the space for family and guardians who are there to support the client. Also, in relation to privacy and territoriality, which are important factors to consider in environmental design (Taylor et al., 1988; Westin, 1970), the questions asked about secluded areas, separate entrances and exits, and amount of time scheduled between clients to increase comfort for the client. Two questions focused on the building that the office occupied, how long the psychotherapy office had been at that location, and whether it was a free-standing building or part of a larger complex. The questions evaluated the spatial characteristics of the psychotherapy waiting room (e.g., size) and also examined factors such as wait time and the number of patients in a waiting room at a time. The questions also assessed the setting surrounding the waiting room (i.e., the building and parking) and its accessibility to patients with a variety of psychological and physical challenges. Groshek (2016) and Altman (1981) have discussed the role of a receptionist in a waiting room, so participants who had a receptionist were asked the impact of the receptionist in the waiting room. Additionally, the questions assessed the level of mental health design education that the therapist had and the therapist’s career history.
Procedure

Participants were recruited through Connecticut College connections of the researcher (faculty, student, staff) and through online websites such as “Psychology Today” that advertised practicing therapists in the area. The participants were contacted via email or phone and were asked to participate in this study. The interview took place at the participant’s office and the notes and answers to the questions were recorded electronically on a computer. No patients of the therapists were present at the meeting.

To document the physical environment of the waiting room, photos of each waiting room were taken from the view of the entrance (to standardize the view and increase the validity of the research). While there were 12 therapists, 5 of the therapists had two or more waiting room spaces, and the total number of waiting rooms photographed was 20. The photos encompass different elements of the waiting room, depending on the layout and design of the waiting room, but the photo captures what is seen by clients when they first walk into the waiting room. All of the participants agreed to have their waiting rooms photographed and to have these photographs used (without identification) in the second phase of the research.

Additionally, while the participants were asked permission to record the interview, the first participant declined and a decision was made not to record any of the interviews to keep the procedure standard. The interviews took between 18 and 34 minutes with an average length of 23.6 minutes.

Before the meeting took place, participants were given informed consent (see Appendix C). Then the participants were asked the list of questions (see Appendix A) and were given the
debriefing form (see Appendix D) at the conclusion of the interview. Once the questions were completed the participants were invited to ask any questions or make any comments.

**Results**

**Characteristics of the Psychotherapy Practice: Size and Clientele**

As described earlier, the data for Phase One of this study were collected by interviewing 12 therapists throughout Southeastern Connecticut and Rhode Island. The therapists were asked 30 questions (see Appendix A). The questions generated a number of responses that were then evaluated. There were three types of psychotherapy waiting rooms evaluated in this study, private practices (83.33%, \( n = 10 \)), community mental health centers (8.33%, \( n = 1 \)), and hospitals (8.33%, \( n = 1 \)). Thus, the vast majority of the waiting rooms were in private practices. Of those psychotherapy waiting rooms, 66.67% (\( n = 8 \)) were group practices that also varied in size from two people (12.5%, \( n = 1 \)), five people (25%, \( n = 2 \)), seven people (12.5%, \( n = 1 \)), or 10 people (12.5%, \( n = 1 \)), and three were N/A (37.5%, \( n = 3 \)), which meant the therapist did not give an answer to this question. In addition to group practices, 33.33% (\( n = 4 \)) were solo practices. The weekly number of clients for each psychotherapy office was collected and categorized by 0-15 clients (16.67%, \( n = 2 \)), 30-40 clients (25%, \( n = 3 \)), 100+ clients (16.67%, \( n = 2 \)), and N/A (41.67%, \( n = 5 \)), which meant the therapists did not know the weekly number of clients seen at the office. The size of the facility differed between one floor (66.67%, \( n = 8 \)), two floors (16.67%, \( n = 2 \)), and three floors (8.33%, \( n = 1 \)), which demonstrated that the majority of the psychotherapy offices were in a one-floor facility. The number of separate practitioner offices at each psychotherapy facility was categorized into six groups: one office (33.33%, \( n = 4 \)), two offices (8.33%, \( n = 1 \)), four offices (16.67%, \( n = 2 \)), six offices (8.33%, \( n = 1 \)), 10+
offices (25%, n = 3), and N/A (16.67%, n = 2), which meant the therapist did not answer this specific question.

The types of the facilities in the building were also evaluated with 16.67% (n = 2) of the facilities being therapy-only buildings, 16.67% (n = 2) including other healthcare facilities in addition to therapy, and 66.67% (n = 8) having a variety of facilities such as law offices, restaurants, apartments, and art galleries. Additionally, only 16.67% (n = 2) of the psychotherapy facilities were part of a healthcare complex, whereas the majority (83.33%, n = 10) were a part of a freestanding building. The length of time the facility had been a dedicated mental health facility also differed across respondents. Facilities were categorized into five groups, N/A (8.33%, n = 1) meaning the therapist did not answer this specific question, 0-5 years (33.33%, n = 4), 10-15 years (16.67%, n = 2), 30-40 years (16.67%, n = 2) and 45+ years (25%, n = 3).

While 91.67% (n = 11) of the therapists said the clients who attended therapy sessions differed in variety and severity of psychological problems, 8.33% (n = 1) said that was not the case (i.e., clients do not differ in type/severity of their problem).

The therapists were also asked to evaluate the strengths and weaknesses of their waiting rooms. Of the therapists, 25% (n = 3) said a strength of their waiting room was the color scheme. One of the therapists was more specific and described their color scheme as “calming”. A majority of therapists said comfortable furniture was a strength in their waiting room (33.33%, n = 4). Another strength that was mentioned was privacy (16.67%, n = 2), and then some therapists named more specific strengths such as, large window (8.33%, n = 1), music (8.33%, n = 1), artwork (8.33%, n = 1), and placement of receptionist (8.33%, n = 1).
A common weakness in the waiting rooms was lack of space/crampedness (33.33%, $n=4$). The next two most-cited weaknesses were lack of privacy (25%, $n = 3$) and lack of seating (16.67%, $n = 2$). Additional weaknesses that were mentioned related to temperature (too hot, 8.33%, $n = 1$), the therapist does not have enough information about community resources available in the waiting room (8.33%, $n = 1$), lack of artwork (8.33%, $n = 1$), and dark lighting (8.33%, $n = 1$). Half of the therapy practices (50%, $n = 6$) had a receptionist, whereas 50% ($n = 6$) did not. When therapists who had a receptionist were asked the role of the receptionist, 83.33% said to greet the clients, do all the paperwork, and set up all of the logistics (financial/scheduling) for the client, whereas 16.67% said the role was to make the waiting room welcoming.

**Characteristics of the Psychotherapy Practice: Comfort and Waiting Experience**

To assess size and comfort of a waiting room, the therapists were asked the average number of people in a waiting room at a given time. The therapists’ responses were categorized into five groups as follows: one person (25%, $n = 3$), two people, (41.67%, $n = 5$), three people (16.67%, $n = 2$), five people (8.33%, $n = 1$), and seven people (8.33%, $n = 1$). The average number of people in the waiting room for the psychotherapy offices was 2.58 ($SD = 1.78$) and Mode = 2. Additionally, average wait time for a client was also recorded, with 8.33% ($n = 1$) of the therapists stating their clients wait zero minutes (seen right away), 25% ($n = 3$) stating their clients wait three minutes, 33.33% ($n = 4$) stating their clients wait five minutes, 16.67% ($n = 2$) stating their clients wait 10 minutes, and 16.66% ($n = 2$) N/A which means the therapist did not know the average wait time for their clients. Overall, the mean wait time was 4.12 minutes ($SD = 3.34$), and the mode was 5 minutes.
Many of the therapists also scheduled time between clients to help with flow and reduce wait time: 8.33% \((n = 1)\) schedule 15 minutes between clients, 16.67% \((n = 2)\) scheduled 10 minutes between clients, 8.33% \((n = 1)\) scheduled 5-10 minutes between clients, 25% \((n = 3)\) said they scheduled no time between clients, and 41.67% \((n = 5)\), N/A. There was a large percentage of N/A answers because the therapist either did not respond to the question or did not know the time they scheduled in between clients. Also, to help understand the number of people in the waiting room, therapists were asked whether families/parents/guardians also waited in the waiting room during their relative’s visit. The answers varied: yes (41.67%, \(n = 5\)), no (41.67, \(n = 5\)), rarely (8.33%, \(n = 1\)) and sometimes (8.33%, \(n = 1\)).

**Therapists’ Background**

To help assess the background of the psychotherapist, the therapists were asked their time spent practicing as a therapist, and time spent practicing at the specific office. Overall, the mean time spent as a practicing therapist was 23.38 years \((SD = 14.49)\), and the Mode was 35 years. For time spent at the specific office, 58.33% \((n = 7)\) had spent 0-15 years, 25% \((n = 3)\) had spent 15-30 years, 8.33% \((n = 1)\) had spent 30+ years, with 8.33% \((n = 1)\) N/A, which meant the therapist did not know how long they had spent at that specific office.

The nature of the practices varied and therapists responded by either describing the age group they treated or the content of their practice from adults/couples (16.67%, \(n = 2\)), exclusively anxiety disorders (8.33%, \(n = 1\)), strictly adults (16.67, \(n = 2\)), strictly adolescents/teens (8.33%, \(n = 1\)), strictly children (8.33%, \(n = 1\)), exclusively marriage and family (8.33, \(n = 1\)), and a variety (33.33%, \(n = 4\)).
Of the 12 psychotherapists interviewed, only 25% \((n = 3)\) learned about mental health design in their education; the vast majority \((75\%, n = 9)\) did not. It is also important to note that the therapists who did learn about mental health design only learned that their office space, not the waiting room, should reflect their personal style. The therapists were asked their involvement in the design of the waiting room on a scale of 1 (no say in design) to 7 (complete say in design). Of the therapists, 41.67\% \((n = 5)\) gave a 1 (no say in the design), 8.33\% \((n = 1)\) gave a 5, 8.33\% \((n = 1)\) gave a 6, and 41.67\% \((n = 5)\) gave a 7 (complete say in the design) \((M = 4.25, SD = 2.92)\), and scores of 7 or 1 were the most common answers. Thus, the majority of the therapists either had no say in the design of their waiting rooms or complete say in the design of the waiting rooms.

**Physical Accessibility and Exterior Setting**

To assess the accessibility of the psychotherapy facility, and specifically the waiting room, necessary features that should be included in the building were considered. For restrooms, 41.67\% \((n = 5)\) of the psychotherapy practices had a public bathroom in the hallway outside of their waiting rooms, whereas 58.33\% \((n = 7)\) had a private bathroom in their waiting room area. Of the psychotherapy offices, 83.33\% \((n = 10)\) had elevators, but 16.67\% \((n = 2)\) did not have access to an elevator. All of the offices without an elevator were on the first-floor. Designated parking was also assessed with 83.33\% \((n = 10)\) having a designated parking area for their clients whereas 16.67\% \((n = 2)\) did not.

The therapists were asked the main reason for selecting the location of their office and 25\% \((n = 3)\) of the therapists said the location was convenient, 33.33\% \((n = 4)\) of the therapists
said availability (i.e., the property was available), 8.33% ($n = 1$) said the decor of the office, and 16.67% ($n = 2$) said the decor of the public spaces in the building, with 16.67% ($n = 2$) N/A.

**Discussion**

The results reinforce the importance of collecting data on the design of psychotherapy waiting rooms, as three-quarters of the therapists here received no education about the design of mental health settings in their degree programs, and those who did stated the focus was on the office itself, and not the waiting area. The main outcomes of the interviews with the psychotherapist were the strengths and weaknesses of their psychotherapy waiting rooms. The strengths and weaknesses both converged with and diverged from the previous literature. One of the main strengths mentioned is the privacy of the psychotherapy waiting room. This feature corresponds to the previous literature, specifically Proshansky et al. (1970), Altman (1981), and Hall (1969) who focus was on the importance of privacy and its relation to sense of control (Ulrich, 1991). Two of the practices in the study had separate waiting rooms, which increases the feeling of privacy for the patient (Kassan, 2008). Additionally, another psychotherapist specified that the location of the waiting room in reference to the offices was a strength because it increased privacy. The waiting room was attached to the hallway that connected to the offices; putting a hallway between the waiting room and the therapy offices increased the sense of privacy. This arrangement demonstrates the importance of the location of the waiting room, especially in relation to privacy (Evans et al., 2000).

A lack of privacy was also seen as a weakness in some of the psychotherapy rooms, a reason that was often followed by lack of seating. Lack of seating was prevalent in three psychotherapy waiting rooms, and is an issue as the previous literature states the importance of
having a variety of seating (including type of seating) so clients can choose where they would like to wait (Altman, 1981; Proshansky et al., 1970). Lack of seating can also translate into lack of personal space, which can cause unease for the client and a sense of loss of control over their surroundings (Shepley, 2017; Ulrich, 1991). Additionally, access to social support has been demonstrated to have a positive relationship with mental health in the previous literature (Cohen, 1985; Cohen et al., 2000; Kawachi & Berkman, 2001), but lack of seating could potentially hinder providing social support. The most discussed weakness mentioned during the interviews was that the waiting rooms were too small/cramped. Again, this aspect has the potential to disrupt the clients’ feelings of privacy/sense of control of their surroundings and their access to social support if there is not enough room to accommodate their supporters (e.g., relatives).

One of the main strengths discussed was the color scheme. This aspect was interesting because the influence of color scheme in the waiting room did not come up in the previous literature. Another common strength discussed by the psychotherapists was the comfort of the furniture in the waiting room. This feature is important because the main goal of the waiting room is to create a comfortable place for the client to wait for their appointment. As discussed earlier, the waiting room should not sacrifice comfort for style, but there should be a variety in the type of seating so clients can choose where they would like to wait (Proshansky et al., 1970). Comfort is an important factor to consider when designing a psychotherapy waiting room. In the Hazelden Betty Ford Treatment Center the center used comfortable materials and furniture that resemble a residential home to increase the self-worth of the patient (Anthony & McCaffrey, 2018). The materials in the Hazelden Betty Ford Treatment Center were high-end, which showed
that patients were valued. The homelike and comfortable environment made patients feel welcome and in control of their own actions (Anthony & McCaffrey, 2018).

The remainder of the strengths and weaknesses that were discussed fall under the category of positive distractions. A strength that was noted was the artwork in the waiting room, while lack of artwork was also mentioned as a weakness. The previous literature has discussed the importance of artwork in the waiting room as a positive distraction. Specifically, artwork that focuses on natural elements has been shown to reduce symptoms of stress and anxiety in patients (Arneill & Devlin, 2002; Bazley et al., 2016; Nanda et al., 2010). Under the umbrella of positive distraction, the lighting/ambient environment of the waiting room can be considered. One of the weaknesses touched on by the psychotherapists was insufficient (i.e., dark) lighting. The previous literature describes how waiting rooms that are characterized as dark and cold are rated the lowest on quality of care and comfort (Arneill & Devlin, 2002). In contrast, a strength to one of the waiting rooms discussed was the large window in the middle of the room. The window allowed natural light to flow into the waiting room, brightening the environment, and provided access to nature (the window looked out onto grass and a few trees). Nature has been shown to be a stress reducer for its restorative effects on the patient, and the experience of the natural environment alleviates stress and aids in the recovery from stress (Bazley et al., 2016; Kaplan, 1984, 1995).

In summary, the main strengths noted by therapists about their waiting rooms were privacy, comfort, and color scheme. This was paralleled in the main weaknesses, which were lack of privacy, seating, and space. When designing a waiting room space, it is important to increase the sense of privacy for the client. This can be achieved by creating a variety of spaces
for the clients to sit, and allowing them to choose between a quiet secluded space, or a space that
encourages interaction/communication. Additionally, the furniture needs to be comfortable, so
the client feels welcome and secure in the waiting room environment. In order to attain this ideal
waiting room, there also needs to be enough space to support the number of clients seen by the
therapist, and account for the individuals who provide social support when they accompany the
clients.

Phase Two: MTurk Psychotherapy Waiting Room Evaluations

Method

Participants

The participants were men and women recruited on Amazon Mturk. The total number of
participants was 225, who identified as female (59.6%, \( n = 134 \)), male (39.1%, \( n = 88 \)), or did
not answer (1.3%, \( n = 3 \)). The participants' ages ranged from 18 to 73 (\( M = 41.69; SD = 13.98 \));
three people did not report their age. The majority of the participants identified as White
(75.6%, \( n = 170 \)), but participants were also Asian (8%, \( n = 18 \)), Black or African/American
(6.2%, \( n = 14 \)), Hispanic/Latino (4%, \( n = 9 \)), other (4.9%, \( n = 4 \)), and no response (1.3%, \( n =
3 \)). Participants also varied in estimated family income: less than 50,000 (38.2%, \( n = 86 \)),
50,000 - 75,000 (25.3%, \( n = 57 \)), 75,000 - 100,000 (16.4%, \( n = 37 \)), 100,000 - 125,000 (8.9% \( n
= 20 \)), 125,000 - 150,000 (5.3% \( n = 12 \)), 150,000+ (4.9%, \( n = 11 \)), and no response (0.9%, \( n =
2 \)). Of the participants, 31.6% (\( n = 71 \)) lived in an urban area, 47.1% (\( n = 106 \)) lived in a
suburban area, 13.3% (\( n = 30 \)) lived in a rural area, 7.1% (\( n = 16 \)) lived in a small town, and
0.9% (\( n = 2 \)) did not respond.

Additionally, to get a better understanding of the participants’ relationship with
psychotherapy waiting rooms, the participants were asked a variety of questions related to therapy. Of the participants, 53.3% \((n = 120)\) had never been in therapy, 45.8% \((n = 103)\) had been in therapy, and 0.9% \((n = 2)\) did not respond. For those who had been in therapy, the amount of time ranged between 0 to 22 years \((M = 3.39; SD = 4.79)\); three people did not report the length of time they spent in therapy. The majority of the participants were not therapists \((96.4\%, n = 217)\) or did not respond \((0.9\%, n = 2)\), but 2.7% \((n = 6)\) stated they were therapists. The participants who were therapists reported working in a hospital \((1.8\%, n = 4)\), a private practice \((6.2\%, n = 14)\), a community resource center \((1.3\%, n = 3)\) or if “other,” had the choice to fill in a text box \((18.7\%, n = 42)\). Of those indicating “other,” a majority of those participants simply wrote in the text box that they were not a therapist, but one identified as being a homemaker \((n = 1)\), and one identified as being a university graduate student who provided anger management \((n = 1)\). Additionally, the number of people who originally reported that they were therapists \((n = 6)\) did not align with the number of people who then identified where they worked as therapists \((n = 63)\), so there was confusion in the survey surrounding that question.

The participants were also asked whether any family members were therapists, 14.2% \((n = 32)\) said yes, 84.4% \((n = 190)\) said no, and 1.3% \((n = 3)\) did not answer. The family members practiced in a hospital \((2.7\%, n = 6)\), a private practice \((9.8\%, n = 22)\), a community resource center \((3.1\%, n = 7)\), or if other, had the choice to fill in a text box \((13.8\%, n = 31)\). All of the participants who filled in the “other” box described that there were no therapists in the family, which suggests some confusion about following the directions on this question in
the survey. Additionally, the number of people who originally reported that they had family members who were therapists \( n = 32 \) did not add up to the number of people who then identified where they worked as therapists \( n = 66 \), so there was confusion in the survey surrounding that question.

**Materials**

A survey was created on Qualtrics that included 20 photographs of psychotherapy waiting rooms (collected in Phase One of this study) and a series of questions that asked the participants to: 1) rate the level of comfort they would feel in the specific photographed waiting room; 2) rate the quality of care they expected to receive; and 3) name two features that stood out to them and explain whether they felt the feature was positive or negative. These measures were used in previous research assessing judgments of healthcare facilities (Devlin, 2008).

**Procedure**

Participants were recruited through Amazon MTurk and were asked to complete the entire survey. Once the participants began the study they first were given the informed consent (see Appendix E). The participants then advanced to the questionnaire. The questionnaire included 20 photographs of psychotherapy waiting rooms, and each photograph had a series of six questions. The first question was “How comfortable would you feel in this waiting room?” which the participant answered on a scale of 1 (extremely uncomfortable) to 9 (extremely comfortable). The second question was “What is the quality of therapy you would expect to receive given this waiting room setting?” which the participant answered on a scale of 1 (extremely low quality) to 9 (extremely high quality). The last four questions were to name two features in the waiting room that stood out and influenced the participants’ ratings and then
indicate whether the feature was positive or negative. The presentation of the photographs was randomized; therefore, each participant saw the photographs in a random order. The participants had 45 seconds per photograph to look at the image and answer all of the questions for that image. The participants were then asked to answer a demographics questionnaire (see Appendix F) and were shown the debriefing form (see Appendix G). Upon completion of the survey participants were paid $.50.

Results

Dimension Reduction

A dimension reduction with varimax rotation was used to separately group the ratings for comfort and for quality. The variables that were being assessed were comfort and quality depicted from the photos of the waiting room. A scree plot was created and suggested that a factor grouping of three would be the best fit for dimension reduction, for both quality of care and for comfort in the environment. The rotated component matrix was then analyzed and final factor groups were determined by their factor loadings. If the loading for a component was above .4 then it was loaded onto that factor. If a photo loaded onto more than one component at .4 or above for either comfort or quality, then it was eliminated from the factor dimension in question.

Through factor analysis three comfort groups were formed. ComfortFactor1 will be described as Cramped and Crowded (Photograph A, Photograph F, Photograph H, Photograph I, Photograph J, and Photograph L loaded and were retained on this factor); ComfortFactor2 will be described as Welcoming and Comfy (Photograph D, Photograph E, Photograph N, and Photograph R loaded and were retained on this factor); and ComfortFactor3 will be described as
Large and Spacious (Photograph G, Photograph K, Photograph P, Photograph S, and Photograph T loaded and were retained on this factor). ComfortFactor1 described 35.21% of the variance, ComfortFactor2 described 7.24% of the variance, and ComfortFactor3 described 5.50% of the variance. The total variance accounted for by the three comfort factors was 47.94%.

Additionally, three quality groups were formed. QualityFactor1 will be described as Old and Crowded (Photograph A, Photograph B, Photograph F, Photograph H, Photograph I, and Photograph J loaded and were retained on this factor), QualityFactor2 will be described as Homey and Comfortable (Photograph C, Photograph K, Photograph P, and Photograph R loaded and were retained on this factor), and QualityFactor3 will be described as Large and Spacious (Photograph E, Photograph G, Photograph Q, Photograph S, and Photograph T loaded and were retained on this factor). The description labels came from the comments made about the waiting rooms in each variable group. QualityFactor1 described 36.55% of the variance, QualityFactor2 described 7.64% of the variance, and QualityFactor3 described 5.62% of the variance. The total variance accounted for by the three quality factors was 49.81%.

The photographs that loaded on each factor for the comfort and quality groupings were somewhat similar. For Cramped and Crowded (ComfortFactor1) and Old and Crowded (QualityFactor1); each had six photos, and five of the six photos for each group were the same, having an 83% overlap. For Welcoming and Comfy (ComfortFactor2) and Homey and Comfortable (QualityFactor2); each had four photos, and one of the four photos for each group was the same, having an 25% overlap. Finally, for Large and Spacious (ComfortFactor3) and Large and Spacious (QualityFactor3); each had five photos, and three of the five photos for each group were the same, having an 60% overlap.
Paired-Samples T-Test: Factor Comparisons

To determine whether the factor groupings differed significantly in their comfort and quality of care ratings, paired-samples $t$-tests were conducted first for the three comfort factor groups and then for three quality factor groups. For Comfort ratings, there were three significant differences between each of the groups, one was between the scores for Cramped and Crowded ($M = 4.4, SD = 1.4$) and Welcoming and Comfy ($M = 5.8, SD = 1.4$) conditions; $t(224) = -16.5, p < .001$. The second was a significant difference between the scores for Welcoming and Comfy ($M = 5.8, SD = 1.4$) and Large and Spacious ($M = 6.02, SD = 1.3$) conditions; $t(224) = -2.8, p = .005$ and the third significant difference was between the scores for Large and Spacious ($M = 6.02, SD = 1.3$) and Cramped and Crowded ($M = 4.4, SD = 1.4$) conditions; $t(224) = 19.7, p < .001$. There were no non-significant pairs.

For the Quality factors, there was a significant difference between the scores for Old and Crowded ($M = 4.62, SD = 1.40$) and Homey and Comfortable ($M = 6.44, SD = 1.23$) conditions; $t(224) = -21.60, p < .001$. There was not a significant difference between the scores for Homey and Comfortable ($M = 6.44, SD = 1.23$) and Large and Spacious ($M = 6.35, SD = 1.21$) conditions; $t(224) = 1.20, p = .237$, although there was a significant difference between the scores for Large and Spacious ($M = 6.35, SD = 1.21$) and Old and Crowded ($M = 4.61, SD = 1.40$) conditions; $t(224) = 20.11, p < .001$. Waiting rooms described as Large and Spacious had the highest mean for comfort ($M = 6.02$) and waiting rooms described as Homey and Comfortable had the highest mean for quality ($M = 6.44$) (see Table 1 and Table 2).

Multivariate Analysis of Variance: Comfort in the Environment
Although no specific hypotheses were posed about the relationship between demographic characteristics and waiting room ratings, a series of analyses were conducted to better understand such potential relationships. A series of multivariate analyses of variance (MANOVA) were performed to assess the relationship between the comfort and the quasi-independent variables; Age, Gender, Race, Received Therapy, Time Spent in Therapy, Are a Therapist, Type of Setting They Practice, Family Member a Therapist, and Type of Setting Family Member Practices. There was a statistically significant multivariate effect for the difference in Comfort ratings related to gender, $F(6, 440) = 2.18, p = .044$; Wilk's $\Lambda = .943$. Males rated comfort higher than did females (see Table 3). Additionally, there was a statistically significant main effect between gender and Cramped and Crowded waiting rooms $F(2, 222) = 4.14, p = .017$, (Males; $M = 4.71$ and Females; $M = 4.16$), but there were no significant main effects for Welcoming and Comfy $F(2, 222) = 2.14, p = .119$, (Males; $M = 5.93$ and Females; $M = 5.74$) and Large and Spacious $F(2, 222) = .963, p = .383$ (Males; $M = 6.17$ and Females; $M = 5.93$).

There was not a significant multivariate effect for the difference between the comfort factors based on race $F(15, 599.443) = 1.44, p = .124$; Wilk's $\Lambda = .907$. For exploratory purposes an examination of the univariate findings was conducted and found there were significant race main effects for Cramped and Crowded waiting rooms $F(5, 219) = 2.36, p = .04$ and Large and Spacious waiting rooms $F(5, 219) = 2.46, p = .03$ but not for Welcoming and Comfy $F(5, 219) = 1.61, p = .159$. A post hoc Tukey test was used to further analyze the main effects for race, based on five levels (White, Black or African/American, Hispanic/Latino, Asian, and Other) on Large and Spacious waiting rooms and found the significant difference was between White and Black or African/American at a .05 significance level, with Black or
African/Americans rating the Large and Spacious waiting rooms higher ($M = 7.03$) than did the White participants ($M = 5.91$). Additionally, there was a statistically significant multivariate effect on comfort ratings related to estimated family income based on six levels (Less than 50,000, 50,000 to 75,000, 75,000 to 100,000, 100,000 to 125,000, 125,000 to 150,000 and 150,000+), $F(15, 593.922) = 1.94$, $p = .017$; Wilk's $\Lambda = .038$. Despite the significant multivariate effect, univariate findings revealed no significant effect for estimated family income on comfort ratings; Cramped and Crowded $F(5, 217) = 1.40$, $p = .224$, Welcoming and Comfy $F(5, 217) = 1.00$, $p = .418$, and Large and Spacious $F(5, 217) = 1.61$, $p = .159$, suggesting an accumulated effect of the individuals tests (see Table 4 for Means and Standard Deviations).

There was not a significant multivariate effect for the difference in comfort factors based on where the individual lived based on four levels (Urban, Suburban, Rural and Small Town), $F(9, 528.272) = 1.54$, $p = .179$; Wilk's $\Lambda = .948$. However, for exploratory purpose an examination of the univariate findings were conducted and found there was not a significant main effect for Cramped and Crowded $F(3, 219) = 1.79$, $p = .150$ or Large and Spacious $F(3, 219) = 1.86$, $p = .137$, however there was a significant main effect for Welcoming and Comfy waiting rooms based on where people live $F(3, 219) = 2.869$, $p = .037$. The Tukey follow up showed that the difference between Urban and Rural was marginally significant with $p = .053$, with Urban rating for comfort ($M = 6.14$) higher than for Rural ($M = 5.40$).

There was no significant multivariate effect for the difference between comfort rating by therapy experiences, $F(3, 219) = 0.39$, $p = .759$; Wilk's $\Lambda = .995$ or significant univariate effects for the difference between comfort rating by therapy experiences, Cramped and Crowded; $F(1, 221) = .075$, $p = .784$; Welcoming and Comfy; $F(1, 221) = .162$, $p = .687$; Large and Spacious;
There was a statistically significant multivariate effect on comfort ratings based on whether the participant was a therapist or not, \( F(3, 219) = 7.10, p < .001; \) Wilk's \( \Lambda = .911. \) There were three significant therapist/non-therapist main effects for each comfort factor, Cramped and Crowded; \( F(1, 221) = 21.43, p < .001; \) Welcoming and Comfy; \( F(1, 221) = 6.12, p = .014; \) Large and Spacious; \( F(1, 221) = 5.50, p = .020. \) Those who were therapists rated Cramped and Crowded, Welcoming and Comfy, and Large and Spacious higher in comfort (\( M's = 6.89, 7.13, \) and 7.23, respectively) than did those who were not therapists (\( M's = 4.31, 5.77, 5.99. \) Additionally, there was a statistically significant multivariate effect on comfort ratings based on whether the participant had a family member that was a therapist or not, \( F(3, 218) = 6.82, p < .001; \) Wilk's \( \Lambda = .914. \) There were three univariate main effects for therapist in the family; Cramped and Crowded; \( F(1, 220) = 20.24, p < .001; \) Welcoming and Comfy; \( F(1, 220) = 9.09, p = .003; \) Large and Spacious; \( F(1, 220) = 6.77, p = .010. \) Those who had family members who were therapists rated all three types of waiting rooms higher (\( M's = 5.36, 6.46, \) and 6.57, respectively) than did those who did not have family members who were therapists (\( M's = 4.20, 5.70, \) and 5.93).

**Multivariate Analysis of Variance: Quality of Care**

A parallel series of multivariate analyses of variance (MANOVA) was performed to assess the relationship between quality ratings and the quasi-independent variables for each of the three waiting room factors. The analysis found no significant multivariate effects for gender; \( F(6, 440) = .720, p = .663; \) Wilk's \( \Lambda = .981 \) or race; \( F(15, 599.443) = 1.599, p = .069; \) Wilk's \( \Lambda = .897. \) For exploratory purpose an examination of the univariate findings were conducted for race and quality factors and found there were three significant main effects: Old and Crowded; \( F(5,
Homey and Comfortable; $F(5, 219) = 2.34, p = .042$; Large and Spacious; $F(5, 219) = 2.64, p = .024$. The Tukey follow up showed that for Old and Crowded waiting rooms, Black or African/American and Asian participants were marginally different with $p = .054$, with Black or African/American participants’ ($M = 5.53$) ratings higher than Asian participants’ ratings ($M = 4.16$). The Tukey follow up tests for Homey and Comfortable and Large and Spacious did not show any significant differences between racial groups in quality ratings across the different quality factors. Additionally, there was no significant multivariate effect for quality ratings based on income; $F(15, 593.922) = 1.34, p = .175$; Wilk’s Λ = .913 and no significant multivariate difference for quality ratings based on where participants live; $F(9, 528.272) = 0.92, p = .505$; Wilk's Λ = .963.

There was no significant multivariate effect for quality ratings based on whether the participants had received therapy; $F(3, 219) = 0.53, p = .665$; Wilk's Λ = .993, but there was a statistically significant multivariate effect for difference in quality ratings based on whether the participant was a therapist or not, $F(3, 219) = 5.96, p = .001$; Wilk's Λ = .925. There were two significant univariate main effects for therapist/non-therapist, one for Old and Crowded waiting rooms $F(1, 221) = 15.54, p < .001$, and the other for Large and Spacious waiting rooms $F(1, 221) = 5.74, p = .017$, between people who were therapists and people who were not, with those who were therapists rating quality higher ($M$’s = 6.75 and 7.50, respectively) for both types of waiting rooms than non-therapists did ($M$’s = 4.55 and 6.31, respectively). There was not a significant therapist main effect for Homey and Comfortable quality ratings, $F(1, 221) = 1.31, p = .254$. 
Additionally, there was a statistically significant multivariate effect for quality ratings based on whether the participant had a family member that was a therapist or not, $F(3, 218) = 5.65, p = .001; \text{Wilk's } \Lambda = .928$. There were two univariate main effects, one for Old and Crowded waiting rooms $F(1, 220) = 16.47, p < .001$, and the other for Large and Spacious waiting rooms $F(1, 220) = 6.26, p = .013$. Those who had family members who were therapists rated quality to be higher on both factors ($M$'s = 5.49 and 6.83, respectively) than did those who did not have therapists in the family ($M$'s = 4.45 and 6.26, respectively). There was not a significant main effect for Homey and Comfortable waiting rooms on whether the participant had a family member that was a therapist or not $F(1, 220) = 3.66, p = .057$, although the finding approached significance.

**Positive and Negative Feature Evaluations**

To further understand which features influenced the participants' rating of the waiting rooms, the participants were asked to name two features that stood out to them, and to record whether the features were negative or positive. Comments were reviewed and sorted into five categories to capture similarities and differences; 1) Decor (mention of decor such as “pretty decor” or aspects such as artwork or rugs); 2) Size (mention of the size of the room or comments such as “cramped area”); 3) Lighting (mention of the brightness/dimness of the rooms or general comments such as “nice lighting”); 4) Furniture (mention of the furniture in the room in addition to its color and comfort); 5) Other (any comment that did not fall under the other four categories, such as “pleasant waiting room” or “clean”). The comments were initially coded by the lead researcher. To calculate inter-reliability an outside individual was recruited to categorize 10% of the comments from a subset of the photographs (randomly selected). The agreement for Cohen’s
kappa for Decor comments was .93 averaged over four photographs, for size comments the Cohen’s kappa was .93 averaged over four photographs, for lighting comments Cohen’s kappa was .98 averaged over four photographs, for furniture comments Cohen’s kappa was .98 averaged over four photographs, and for other Cohen’s kappa was .94 averaged over four photographs. The values ranged between .88 - 1.00 for all comment groups.

A 3 (comfort factor) by 2 (positive and negative comments) chi-square test of independence was performed to examine the relation between the different comfort factor waiting room groups and the proportion of positive and negative comments for those three comfort groups. There was a significant difference in the proportions $X^2 (2, N = 6309) = 600.1155, p < .001$, which demonstrated the features in Cramped and Crowded waiting rooms were primarily viewed as negative (63.12%), whereas features in Welcoming and Comfy and Large and Spacious rooms were primarily seen as positive (65.26% and 70.09%, respectively). The $N$ represents the sample size (225), rating 15 photographs, and giving two comments per each photograph. Not all 225 participants rated whether a photograph was negative or positive so there were missing values for each photograph. Of the 6,750 values, 410 of them were missing values, yielding an $N$ of 6340.

Additionally, a 3 (comfort factor) by 5 (features groups) chi-square test of independence was performed to examine the relation between the different comfort factor waiting room groups and the proportion of comments across the different codes created about the features in the room (Decor, Size, Lighting, Furniture, and Other). There was a significant difference in the proportions, $X^2 (8, N = 6509) = 122.91, p < .001$, which demonstrated that the negative comments for Cramped and Crowded waiting rooms were primarily size, furniture, or “Other”.
Examples of these comments included, “looks crowded”, “too small”, “chair packed way too close”, “tiny, cramped”, “cheap looking seating” and “forgettable”. The chi-square analysis also demonstrated that the positive comments for Welcoming and Comfy were primarily categorized as decor, furniture, or “Other” and includes comments such as, “chairs look comfortable”, “welcoming”, “child friendly”, “very warm, very well lit, inviting” and “Homey”. Additionally, chi-square analysis demonstrated that the positive comments for Large and Spacious waiting rooms were in furniture or “Other”. Examples of these comments are, “lots of seating”, “nice furniture”, “roomy”, and “open airy layout”. “Other” was a common category because there were many comments that were specific to the categories such as “looks more like day care than medical facility”, “cleanliness”, “not enough privacy”, “tacky”, and “trash can,” which were difficult to categorize.

A 3 (quality factor) by 2 (positive and negative comments) chi-square test of independence was performed to examine the relation between the different quality factor waiting room groups and the proportion of positive and negative comments, $X^2 (2, N = 6312) = 760.4434, p < .001$. The $N$ represents the sample (225), rating 15 photographs, giving two comments per each photograph. Again, there were miss values for each of the photographs because individuals did not always rate whether the feature was negative or positive. Of the 6,750 possible values, 438 were missing, yielding an $N$ of 6312. The analysis demonstrated that the comments were mainly negative for the Old and Crowded waiting room (62.33%), whereas the comments were mainly positive for the Homey and Comfortable waiting rooms (65.26%) and the Large and Spacious waiting rooms (65.97%).
Additionally, a 3 (quality factor) by 5 (feature groups) chi-square test of independence was performed to examine the relation between the different quality factor waiting room groups and the proportion of comments about the features in the room. Each comment was placed in one of five categories; Decor, Size, Lighting, Furniture or Other. There was a significant difference between the factor groups and the proportion of comments, $X^2 (8, N = 6470) = 127.36, p < .001$. The negative comments in Old and Crowded waiting rooms were mainly categorized under size, furniture, and Other; the positive comments in Homey and Comfortable waiting rooms were mainly furniture or Other, and the positive comments in Large and Spacious waiting rooms were mainly furniture or Other.

**Discussion of Phase 2 and General Discussion**

The purpose of this study was to investigate the qualities of therapy waiting rooms that might be preferred from a design standpoint. There has been a lack of research on the design and environment of psychotherapy waiting rooms and this study serves to address this gap in the literature. Waiting rooms in psychotherapy offices may affect clients’ perceived quality of care and their comfort level. The main recommendations from the research focused on the importance of space and home-like decor in the waiting room setting as Large and Spacious waiting rooms were rated highest on comfort while Homey and Comfortable rated highest on perceived quality. These findings are supported by the previous literature, but also add a new important perspective on the design of psychotherapy waiting rooms.

As described in the Discussion in Phase 1, the interviews with the therapist revealed the importance of privacy in waiting rooms, especially for providing comfort for the client. This is also demonstrated by Phase 2 of the study. The comments for the waiting rooms in Large and
Spacious for both comfort and quality were mainly positive, and described the variety in type and location of the seating. The increase in seating as well as abundance of spaces promotes the sense of privacy and personal space felt by the patient. Additionally, in the Cramped and Crowded comfort group, and Old and Crowded quality group, lack of seating was a primary issue that resulted in low comfort and low quality ratings. Looking back at Phase 1, of the therapists who described space/lack of seating as a primary weakness for their waiting room (Waiting Rooms A, B, D, E, F, O), Waiting Room A and Waiting Room F were grouped in the Cramped and Crowded comfort group and Waiting Room A, Waiting Room B, and Waiting Room F were grouped in the Old and Crowded quality group. This demonstrates that therapists do have some insight on how the waiting room spaces might be viewed by others. It is important to have a variety of seating (including type of seating) so clients can choose where they would like to wait (Altman, 1981; Proshansky et al., 1970). This kind of choice is important not only for a sense of privacy and personal space, but also because it gives the client the autonomy to choose where they sit, which in turn reduces the stress felt by the client (Ulrich, 1991). The Large and Spacious rooms also provide for a conducive waiting room environment for social support, which is important to the clients’ mental health and has a positive relationship with mental health in the previous literature (Cohen, 1985; Cohen et al., 2000; Kawachi & Berkman, 2001).

The Homey and Comfortable quality factor group demonstrated the importance of creating a waiting room design that had quality decor, primarily natural in theme, as well as furniture that was cozy, and that a client might use in their own home. Many of the comments about features in waiting rooms that were grouped as Homey and Comfortable highlighted the
positive effect of lighting and welcoming décor, and the negative effect of bare walls and generic furniture. The highest rated photo for both comfort and quality was Waiting Room Q, which ironically was not grouped into any of the comfort or quality groups. The waiting room was not very large but it had two options of seating (a chair and couch) and a very nice ambient environment. The lighting was dim in the waiting room and the color scheme of the couch and walls was dark. There was still a lamp on the side table giving off more light, but the client had the choice to turn it off if desired, giving them a sense of control (Ulrich, 1991). Additionally, there were plants as part of the decor, and nature-themed artwork on the walls. An unusual aspect about the waiting room that was commented on by the participants was the brick wall in the waiting room. The brick wall received both positive and negative comments. Some participants felt it added to the ambient environment in a positive way, whereas others felt it made the room too dark and cell-like. Overall, Waiting Room Q was the best rated, and demonstrated the importance of the ambient environment and decor in a waiting room setting. These aspects are also demonstrated in the other top-rated quality and comfort photos.

**Comfort Photos**

**Top Three Comfort Photos**

The top rated waiting room pictures for comfort were Waiting Room Q \( (M = 6.70) \), Waiting Room P \( (M = 6.67) \), and Waiting Room R \( (M = 6.60) \). An interesting observation is that none of the waiting rooms loaded onto the same factor group. Waiting Room Q failed to load onto any of three factor groups, Waiting Room P loaded onto Large and Spacious, and Waiting R loaded onto Welcoming and Comfy. The main design elements that were recommended from the previous literature were natural elements such as nature themed art or plants, an ambient
environment (lighting), and a variety of the type of seating in the waiting room and the placement of the seating in the waiting room so the client has a sense of autonomy. These design elements were seen in some of the top photos. There are similarities between the top three photos: each waiting room has separate seating, and includes at least one chair and couch, therefore giving the client a choice of type of seating. All three of the waiting rooms also have a variety of décor, which was noted in the comments by the participants. Waiting Room Q and P have natural décor, which includes a variety of plants. Waiting Room Q also has nature themed-artwork. Participants noted that the waiting room had “homey lighting and furniture” and “homey soothing decor and colors”. Participants noted the “plants” and “natural decor” in Waiting Room P, as well as “the beautiful wooden ceiling”. Waiting Room R also has a lot of decoration, but it is different from the other waiting rooms. Waiting Room R’s decor is mainly bright colors, and includes different paintings and a tapestry; participants acknowledged that the “natural brown floor made it feel homey” and enjoyed the “modern decor”.

Some differences between the waiting rooms involve the lighting and size of the space. Waiting Room Q is fairly small, with dim lighting, and a darker color theme. Waiting Room P is much larger, and has two separate seating areas, and has a brighter, yellow lighting. Waiting Room R is slightly bigger than Waiting Room Q but is still a lot smaller than Waiting Room P, it has a much brighter theme, and has more natural light than the other two waiting rooms. Thus, overall, decor was an important aspect of the comfort ratings in the top three waiting rooms.

**Bottom Three Comfort Photos**

The lowest rated comfort waiting rooms were, Waiting Room J (M = 2.49), Waiting Room A (M = 4.38), and Waiting Room F (M = 4.57). All three of the waiting rooms are
extremely small in size, and have a lack of seating. Also, all three of the waiting rooms loaded onto the Cramped and Crowded comfort factor. Additionally, there is no variety of seating in the three waiting rooms, and both J and A only have basic hard seating that many participants commented on: “uncomfortable seating”, “hard looking chairs,” and “cramped seating”.

Additionally, besides a few magazines, there is very little decor in all three of these bottom-rated waiting rooms, and only Waiting Room J has a plant (natural element). The crowded space and absence of decoration reduces the comfort felt and rated by the participants. It is important to note that there is more agreement about what does not work in psychotherapy waiting rooms than about what is preferred, which is both a positive and a negative aspect of the research. There is more opportunity to create a preferred environment on the one hand, but there is also less agreement on how to do so on the other.

Quality Photos

Top Three Quality Photos

The top rated waiting room photos for quality were Waiting Room Q ($M = 6.95$), Waiting Room G ($M = 6.78$), and Waiting Room P ($M = 6.74$). Waiting Rooms’ Q and G were grouped into the Large and Spacious quality factor, while Waiting Room P was grouped into the Homey and Comfortable quality factor. Again the main design elements that were recommended from the previous literature were decor such as nature themed art or plants, an ambient environment (lighting), and a variety of the type of seating in the waiting room and the placement of the seating in the waiting room. Both Waiting Room G and P are spacious, and therefore have a variety of seating so patients can choose to sit in a separate seating area, or choose to sit in a chair or couch. Waiting Room Q, although smaller, still has two types of seating choices (couch
or chair). As described earlier, Waiting Room P and Q have natural decor elements that add to the waiting room setting; Waiting Room G also has some nature-themed pictures and a plant. Waiting Room G has a lot of practical components to the waiting room such as the resources on the wall, the “massage chairs” and the “water fountain,” which all have been described as positive in the comments. Again, the dim lighting in Waiting Room Q was described positively in the comments as “mood lighting” and “calming lighting”. The size and space of Waiting Room G and P, the lighting in Waiting Room Q, and the amount/type of decor in all three of the waiting rooms, demonstrated the importance of those elements in producing high quality ratings in a psychotherapy waiting room.

**Bottom Three Quality Photos**

The lowest rated waiting room photos for quality were Waiting Room J ($M = 2.81$), Waiting Room F ($M = 4.76$), and Waiting Room I ($M = 4.77$). Both Waiting Room J and Waiting Room F were in the bottom three photos for comfort rating. Again, all three of the photos were grouped together into the Old and Crowded factor group and were given low scores on perceived quality. All three of the spaces are very small and cramped and have a lack of seating. The comments by the participants were mainly negative in describing the type of furniture in the waiting rooms, and the size of the waiting rooms. These three waiting rooms show the importance of creating a space that is spacious enough so the therapist can provide enough types of seating for the clients, and to accommodate comfortable seating. Such space and seating will increase the perceived quality of care, and the overall experience for the client.

**Demographic Analyses**
As described earlier there is a gap in the research surrounding the design of psychotherapy waiting rooms. An aspect of the current study involved looking at how individuals who differ in their demographic profiles view the design of psychotherapy waiting rooms in relation to comfort and perceived quality of care. These differences are important to understand, because certain practices are geared towards certain demographic populations, and therapists should therefore understand the different elements related to the comfort clients feel in the waiting room environment.

The majority of the demographic differences were seen in the comfort ratings. For example, male participants rated comfort higher than did female participants, specifically for the Cramped and Crowded waiting rooms. This is important to note, as female participants demonstrated that they are likely to feel more comfortable in a larger, more welcoming waiting room versus one that lacks seating and space. Additionally, participants who identified as Black or African/American rated Large and Spacious waiting rooms higher for comfort than did participants who identified as White, suggesting the Black/African-American sample placed a higher value on this aspect of the waiting room than did those who identified as White. Again this is important to note, as there could be a number of factors contributing to this result. For example, for many cultures and underrepresented groups, receiving help for a mental health issue is seen as taboo, and is highly stigmatized. Therefore, an increase in the size of the waiting room could increase the sense of privacy and personal space perceived by the client, making them feel more comfortable.

For all the comfort groups (Cramped and Crowded, Welcoming and Comfy, and Large and Spacious) and two of the quality groups (Old and Crowded and Large and Spacious)
participants who were therapists or had family members who were therapists rated comfort and quality significantly higher than those who do not fit those two categories. This is important because the participants who are therapists or have a family member who is a therapist may not have the same perspective as a participant who has no relation to therapy, or is a client in therapy. While the majority of the therapists who participated in Phase 1 of the study, had not learned about mental health design in their education, they are still likely to be more knowledgeable on the subject because they are members of the therapy community. They might also know the challenges in creating a welcoming and supportive waiting room environment and therefore be more generous in their ratings. Additionally, there was a lack of difference in the ratings based on therapy experience or not (whether a participant has received therapy), which might suggest that the responses to these waiting rooms would generalize across population types.

Overall, the findings from this study support the previous literature but also go beyond what has been found on the design of psychotherapy waiting rooms. The previous literature has mainly focused on the design of healthcare waiting rooms and the therapist’s physical office and has emphasized the importance of creating a welcoming atmosphere for the patient through considering light, sounds, and sights (ambient environment) and emphasizing the privacy and personal control of the environment to help enhance patient comfort in the waiting room. As supported by the results waiting rooms that are “nicely furnished, well-lighted, and contained artwork” (p. 350) were rated higher on quality of care and comfort expected in the environment than waiting rooms that did not consider those factors (Arneill & Devlin, 2002). Additionally, the absence of natural elements in built environments and health-care settings interrupts our
self-identity, and causes discomfort and anxiety while natural elements have a positive effect on patients’ well-being (Bazley et al., 2016; Kellert & Wilson, 1993).

In the results, the photos that loaded onto the Cramped and Crowded and Old and Cramped dimensions also received many negative comments by the participants associated with clutter and disorganization. The literature demonstrated that randomly placed decor that seems to lack organization translates to a perceived lack of care for design (Watts et al., 2016) and that individuals feel more comfortable and welcome when an office was organized and included living things such as plants (Campbell, 1979). The importance of organization and orderliness was also a theme that emerged in the studies by Nasar and Devlin (e.g., Devlin & Nasar, 2012) in describing therapists’ offices that were likely to be highly rated. In those studies, the rated quality of care and comfort in the environment increased with increases in orderliness.

Additionally, the results emphasized the importance of privacy in the waiting room, which is supported by the previous literature. The first comfort and quality factor groups are described as old, crowded, and cramped, and are the most similarly grouped photos. In most situations, individuals organize their environment so that they can maximize their control of the environment (Proshansky et al., 1970). The client needs to be given the option of privacy through the choice of separate seating, different types of seating, and personal space. When a waiting room is too small or too cramped, the client is no longer given the ability to control these aspects of their waiting room experience. When an individual’s personal space is violated there is an increase in stress and anxiety (Hall, 1969). Waiting rooms for therapists may be designed for occupancy by fewer people, specifically for private practices or solo practitioners, which is different from waiting rooms that are designed for physician offices that are designed for larger
occupancy. Therefore there may be the tendency to think that a spacious waiting room is not necessary but therapists should not “under-size” their waiting room because giving the clients choice and autonomy, specifically in a situation where they are having mental health issues, is very important.

Limitations and Future Directions

There were a number of limitations to this study. One, my sample size for the therapist interviews was small. Additionally, the majority of the therapists I interviewed worked in a private practice setting. There was not enough representation from psychotherapists who work in hospital and community health center settings. If I had more time to interview a wider scale of therapists I believe the interview data would be much richer.

The participants in Phase 2 were only shown the photographs and did not experience the physical offices in person. Also, not all of the participants had been, or will experience a psychotherapy waiting room. Therefore future research should assess on-site ratings, as well as getting a large sample size of participants who have experienced or are experiencing psychotherapy waiting rooms regularly. Nevertheless, the similarity in ratings whether or not an individual reported experience with therapy suggests some generality of the findings.

In within subjects research of this kind, with 20 photographs, there is a limit to the number of questions you can ask about each photograph without risking fatigue on the part of your participants, which in turn might impact the internal validity of the data. Future research might use a more limited number of photographs and explore additional ratings of the waiting rooms, such as evaluations of personal space or territoriality as well as perceived stress.

Practice Recommendations
The low ratings for both Cramped and Crowded and Old and Crowded demonstrated the importance for baseline guidelines for the design of psychotherapy waiting rooms, specifically related to size and type/amount of seating. Due to the higher ratings in comfort and quality in large spacious areas that are homey and welcoming, it is recommended that therapists include a variety of decor that is nature-themed (plants, landscape art, and natural elements) as well as different areas of seating that vary in size and privacy. Additionally, due to the difference in ratings based on demographic information therapists should look at the client base and be sensitive to design parameters that fit the needs of the client population.
References


Corsano, P., Majorano, M., Vignola, V., Guidotti, L., & Izzi, G. (2015). The waiting room as a


https://doi.org/10.1037/0022-3514.79.2.204

Inclusive healthcare waiting rooms: A comparison study for improving the user


Groshek, N. (2016, December 6). 8 Things you need to design a waiting room that wows.
https://www.nationalbusinessfurniture.com/blog/8-things-you-need-to-design-a-waiting-room-that-wows


https://doi.org/10.1111/j.1467-9450.1996.tb00670.x


https://doi.org/10.1007/s10995-018-2508-z


https://doi.org/10.1111/j.1365-2648.2007.04388.x


Nanda, U., Barbato Gaydos, H. L., Hathorn, K., & Watkins, N. (2010). Art and posttraumatic...


https://doi.org/10.1080/01459740903070840


https://doi.org/10.1037/0033-2909.103.2.193


https://doi.org/10.4081/jphr.2019.1476

in health facility waiting rooms on their perception of health professionals. *Hospital Topics, 93*(1), 13–18. https://doi.org/10.1080/00185868.2014.969607


### Table 1

**Means and Standard Deviations for Each Comfort Factor**

<table>
<thead>
<tr>
<th>Comfort Factor</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramped and Crowded</td>
<td>4.38</td>
<td>1.40</td>
</tr>
<tr>
<td>Welcoming and Comfy</td>
<td>5.80</td>
<td>1.36</td>
</tr>
<tr>
<td>Large and Spacious</td>
<td>6.02</td>
<td>1.29</td>
</tr>
</tbody>
</table>

On a scale where 1 = Extremely Uncomfortable to 9 = Extremely Comfortable
Table 2

*Means and Standard Deviations for Each Quality Factor*

<table>
<thead>
<tr>
<th></th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old and Crowded</td>
<td>4.62</td>
<td>1.39</td>
</tr>
<tr>
<td>Homey and Comfortable</td>
<td>6.44</td>
<td>1.23</td>
</tr>
<tr>
<td>Large and Spacious</td>
<td>6.35</td>
<td>1.21</td>
</tr>
</tbody>
</table>

On a scale where 1 = Extremely Low Quality to 9 = Extremely High Quality
Table 3

*Means for each Comfort Factor and Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramped and Crowded</td>
<td>Male</td>
<td>4.70</td>
</tr>
<tr>
<td>Cramped and Crowded</td>
<td>Female</td>
<td>4.16</td>
</tr>
<tr>
<td>Welcoming and Comfy</td>
<td>Male</td>
<td>5.93</td>
</tr>
<tr>
<td>Welcoming and Comfy</td>
<td>Female</td>
<td>5.74</td>
</tr>
<tr>
<td>Large and Spacious</td>
<td>Male</td>
<td>6.17</td>
</tr>
<tr>
<td>Large and Spacious</td>
<td>Female</td>
<td>5.93</td>
</tr>
</tbody>
</table>

On a scale where 1 = Extremely Uncomfortable to 9 = Extremely Comfortable
Table 4

*Means for each Comfort Factor and Estimated Family Income*

<table>
<thead>
<tr>
<th>Income</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramped and Crowded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 50,000</td>
<td>4.27</td>
<td>1.30</td>
</tr>
<tr>
<td>50,000 to 75,000</td>
<td>4.70</td>
<td>1.42</td>
</tr>
<tr>
<td>75,000 to 100,000</td>
<td>4.42</td>
<td>1.55</td>
</tr>
<tr>
<td>100,000 to 125,000</td>
<td>4.44</td>
<td>1.37</td>
</tr>
<tr>
<td>125,000 to 150,000</td>
<td>3.86</td>
<td>1.57</td>
</tr>
<tr>
<td>More than 150,000</td>
<td>3.82</td>
<td>1.38</td>
</tr>
<tr>
<td>Welcoming and Comfy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 50,000</td>
<td>5.90</td>
<td>1.28</td>
</tr>
<tr>
<td>50,000 to 75,000</td>
<td>5.78</td>
<td>1.34</td>
</tr>
<tr>
<td>75,000 to 100,000</td>
<td>5.68</td>
<td>1.43</td>
</tr>
<tr>
<td>100,000 to 125,000</td>
<td>5.61</td>
<td>1.33</td>
</tr>
<tr>
<td>125,000 to 150,000</td>
<td>5.42</td>
<td>1.61</td>
</tr>
<tr>
<td>More than 150,000</td>
<td>6.48</td>
<td>1.07</td>
</tr>
<tr>
<td>Large and Spacious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 50,000</td>
<td>5.90</td>
<td>1.30</td>
</tr>
<tr>
<td>50,000 to 75,000</td>
<td>6.26</td>
<td>1.13</td>
</tr>
<tr>
<td>75,000 to 100,000</td>
<td>6.06</td>
<td>1.51</td>
</tr>
<tr>
<td>100,000 to 125,000</td>
<td>5.80</td>
<td>1.04</td>
</tr>
<tr>
<td>125,000 to 150,000</td>
<td>5.52</td>
<td>1.49</td>
</tr>
<tr>
<td>Large and Spacious</td>
<td>More than 150,000</td>
<td>6.65</td>
</tr>
</tbody>
</table>

On a scale where 1 = Extremely Uncomfortable to 9 = Extremely Comfortable
### Table 5

*Means and Standard Deviations for Top Three Comfort Photos and Bottom Three Comfort Photos*

<table>
<thead>
<tr>
<th>Waiting Room</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Rated Waiting Room</td>
<td>Q</td>
<td>6.70</td>
</tr>
<tr>
<td>Second Highest Rated Waiting Room</td>
<td>P</td>
<td>6.67</td>
</tr>
<tr>
<td>Third Highest Rated Waiting Room</td>
<td>R</td>
<td>6.58</td>
</tr>
<tr>
<td>Lowest Rated Waiting Room</td>
<td>J</td>
<td>2.49</td>
</tr>
<tr>
<td>Second Lowest Rated Waiting Room</td>
<td>A</td>
<td>4.38</td>
</tr>
<tr>
<td>Third Lowest Rated Waiting Room</td>
<td>F</td>
<td>4.57</td>
</tr>
</tbody>
</table>

On a scale where 1 = Extremely Uncomfortable to 9 = Extremely Comfortable
Table 6

*Means and Standard Deviations for Top Three Quality Photos and Bottom Three Quality Photos*

<table>
<thead>
<tr>
<th>Waiting Room</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Rated Waiting Room</td>
<td>Q</td>
<td>6.95</td>
</tr>
<tr>
<td>Second Highest Rated Waiting Room</td>
<td>G</td>
<td>6.78</td>
</tr>
<tr>
<td>Third Highest Rated Waiting Room</td>
<td>P</td>
<td>6.74</td>
</tr>
<tr>
<td>Lowest Rated Waiting Room</td>
<td>J</td>
<td>2.81</td>
</tr>
<tr>
<td>Second Lowest Rated Waiting Room</td>
<td>F</td>
<td>4.76</td>
</tr>
<tr>
<td>Third Lowest Rated Waiting Room</td>
<td>I</td>
<td>4.77</td>
</tr>
</tbody>
</table>

On a scale where 1 = Extremely Low Quality to 9 = Extremely High Quality
Appendix A

Phase 1: Interview Questions

1. Solo practitioner or group:

   a. If group practice what is the size of the group:

   b. If group, what do you think is the average number of people in the waiting room at a time?

2. Size of Practice (how many clients are seen by the facility):

3. Size of facility (number of offices/floors)

4. Office types in facility (e.g., healthcare, law, accounting, etc.)

5. How long has the facility been a mental health facility:

6. Is there a restroom in the office (or do clients use the public space of the building)?

7. Is there an elevator in the building?

8. Is there designated parking for the practice?

9. Location of facility (e.g., is it part of a healthcare complex; free standing building?)

10. Time spent as a practicing therapist at this office:

11. How long in practice (i.e., having a practice)?

12. What is the nature of your practice (e.g., adolescents, marriage, substance abuse, counseling?)

13. Comparison of waiting room to other offices they have worked/been in (size, windows, furnishings, coffee, magazines, etc.):

14. Did you learn about mental health design in your education?
15. If so, what did you learn?

16. Did you have any say in the design of the waiting room (1=no involvement to 7=totally my own decision)?

17. What was your role in selecting the location? The building itself? This office?

18. What were the considerations in selecting this office…cost? culture of community?

19. What do you think is the average wait time for your clients in the waiting room?

20. How much time do you schedule between clients?

21. Are clients here with a variety of different psychological problems;

22. If there are disorders that range in severity, are there separate waiting areas?

23. Do you believe your waiting room has enough doors, access to all areas and functions?

24. What are the strengths of the waiting area, in their opinion; what aspects need to be improved?

25. Do you have a receptionist?

26. What do you believe is the role of the receptionist in the waiting room?

27. Are there multiple families/parents/guardians waiting for clients?

28. Age:

29. Race:

30. Gender:

**Ask questions about specific features in the waiting room, but you won’t know that until you see it.
Appendix B

Photograph of Waiting Rooms

Waiting Room A
Waiting Room B
Waiting Room C
Waiting Room D
Waiting Room E
Waiting Room F
Waiting Room G
Waiting Room H
Waiting Room I
Waiting Room K
Waiting Room L
Waiting Room M
Waiting Room N
Waiting Room O
Waiting Room P
Waiting Room Q
Waiting Room S
Waiting Room T
Appendix C

Phase 1: Informed Consent

Study Title: The Design of Psychotherapy Waiting Rooms

Principal Investigator: Lilly Noble

Connecticut College

270 Mohegan Avenue

New London, CT 06320

lnoble@conncoll.edu

You are being asked to choose whether or not to volunteer in the research described below. The text below provides key information that may help you to make this decision.

Why is this research being done and what is involved?

You are being invited to participate in Lilly Noble’s Connecticut College honors thesis research on therapist’s perceptions of waiting room environments and design. The purpose of the study is to better understand the kinds of waiting room environments that are available to therapy patients. A good deal of research has been done on the therapy office itself, but the waiting room has received little attention.
This research will involve completing a short demographic questionnaire and then answering 15-20 questions about waiting room design and environment. This study should take about 45-60 minutes.

You are also being asked to give permission to have this interview tape-recorded.

In addition, you are being asked to allow the researcher to take a photo of the office’s waiting room. This photo will be used in Phase 2 of this research in which students and the general public will be asked to rate a large number of waiting rooms on dimensions such as “comfort felt in the environment.”

You are also being asked to consent to publication of the study results as long as the identity of all participants is protected.

It is anticipated that about 25-30 therapists will be involved in this study.

Do I have to participate?

Participation in this research study is completely voluntary and you are free to withdraw from the research at any time.

There is no penalty for withdrawing from the study. Your decision to volunteer for this study will not affect your current or future relationship with Connecticut College.
**What are the risks and benefits?**

We do not anticipate any risks to participating in this research other than those encountered in everyday life.

There are no direct benefits to you, however we hope this research will improve our understanding of the facilities in which therapy takes place.

**Data Security**

No identifying information will be included in any report involving the data collected. Information you provide will be identified with a code number and NOT your name.

In addition, we will keep the data as secure as possible. The tape recordings will be destroyed after the study is complete; until that time, the recordings will be kept in a locked cabinet at Connecticut College.

**Whom can I talk to if I have questions or concerns?**

If you have any questions or concerns about this research, you can contact Lilly Noble, the lead researcher at lnobel@conncoll.edu or Professor Nier, Chair of the CC IRB, at janie@conncoll.edu


**Statement of Consent**

If you have read the above information, consent to take part in the study, and are at least 18 years of age, please sign below. This research has been approved by the Connecticut College Human Subjects IRB.

I agree to have my office waiting room photographed to be used in Phase 2 of this study.

Yes ___ No

A copy of this informed consent will be given to you.

I am at least 18 years of age, have read these explanations and assurances, and voluntarily consent to participate in this research on therapist’s perceptions of waiting room environments and design.
Appendix D

Phase 1: Debriefing Form

First of all, thank you for participating in this research dealing with the environment of psychotherapy waiting rooms. In this research, we are interviewing different therapists from a variety of practices (community centers, private practice, etc.) to compare the designs of waiting rooms in psychotherapy practices. We are also taking pictures of each of the waiting rooms to use in Phase 2 of the research to assess people’s perception of these spaces.

The participants in this study were nearby therapists in the southern Connecticut region who were contacted to answer questions about the design of the space in their practice. Waiting rooms are a necessary part when seeing a healthcare professional but their design is often overlooked. It is important to study how to improve patients’ experience in waiting rooms because it may affect how they feel about and perceive the care they receive. There is literature on the design of outpatient waiting rooms in doctors’ offices/in the hospital as well as studies on the design of the therapist’s office itself, but there is no known literature on the impact of psychotherapy waiting rooms.

If you have any questions or concerns about the manner in which this study was conducted, please contact the Connecticut College IRB Chairperson Jason Nier at janie@conncoll.edu.

If you are interested in this topic and want to read the literature in this area, you might enjoy the following articles:


You may also contact me Lilly Noble at lnoble@conncoll.edu for additional resources.
Appendix E

Phase 2: Informed Consent

Study Title: The Design of Psychotherapy Waiting Rooms

Principal Investigator: Lilly Noble
Connecticut College
270 Mohegan Avenue
New London, CT 06320
lnoble@conncoll.edu

You are being asked to choose whether or not to volunteer in the research described below. The text below provides key information that may help you to make this decision.

Why is this research being done and what is involved?

You are being invited to participate in Lilly Noble’s Connecticut College honors thesis research on clients’ perceptions of waiting room environments and design. The purpose of the study is to better understand the kinds of waiting room environments that are available to therapy patients. A good deal of research has been done on the therapy office itself, but the waiting room has received little attention.

You will be asked to view 20 photographs and answer 4 short questions for each photograph to indicate your impressions of the psychotherapy waiting room based on the photograph you viewed.
You are also being asked to consent to the publication of the study results as long as the identity of all participants is protected (here the data are anonymous, that is, no identifying information is collected).

This study should take about 20-30 minutes.

It is anticipated that 250 people will be involved in this study.

**Do I have to participate?**

Participation in this research study is completely voluntary and you are free to withdraw from the research at any time by closing the browser on your window.

There is no penalty for withdrawing from the study. Your decision to volunteer for this study will not affect your current or future relationship with Connecticut College.

**What are the risks and benefits?**

We do not anticipate any risks to participating in this research other than those encountered in everyday life.

Each participant will be paid $0.50 for the completion of this study.

In addition, we hope this research will help improve our understanding of the environment of the psychotherapy waiting room.

**Data Security**
These data are being collected anonymously and therefore no identifying information will be included in any report involving the data collected. Information you provide will be identified with a code number and NOT your name.

In addition, we will keep the data as secure as possible.

**Whom can I talk to if I have questions or concerns?**

If you have any questions or concerns about this research, you can contact Lilly Noble, the lead researcher at lnoble@conncoll.edu or Professor Zakriski, Chair of the CC IRB, at alzak@conncoll.edu

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**Statement of Consent**

If you have read the above information, consent to take part in the study, and are at least 18 years of age, please click the submit button and continue forward. This research has been approved by the Connecticut College Human Subjects IRB.

I am at least 18 years of age, have read these explanations and assurances, and voluntarily consent to participate in this research on therapist’s perceptions of waiting room environments and design.

To obtain a copy of the informed consent, please click on the link below to download the document to your desktop or smartphone.
Appendix F

Demographics Questionnaire

1. Have you been in therapy? Yes or No
2. If so, how long have you been in therapy (in years)?
3. Are you a therapist? Yes or No
4. If so, in what type of setting do you practice (hospital, private practice, community resource center or other, please describe)?
5. Are any of your family members therapists? Yes or No
6. If so, in what type of setting do they practice (hospital, private practice, community resource center or other, please describe)?
7. Estimated family income (less than 50,000, 50,000 to 75,000, 75,000 to 100,000, 100,000 to 125,000, 125,000 to 150,000, more than 150,000)?
8. How would you describe the area in which you live (urban, suburban, rural, or small town)?
9. Age:
10. Race:
11. Gender:
Appendix G

Phase 2: Debriefing Form

First of all, thank you for participating in this research dealing with the environment of psychotherapy waiting rooms. In this research, we are assessing people’s perception of a variety of psychotherapy waiting rooms to compare the designs of waiting rooms in psychotherapy practices.

The participants in this study were recruited through Amazon MTurk. Waiting rooms are a necessary part when seeing a healthcare professional but the design of waiting rooms is often overlooked. It is important to study how to improve patients’ experience in waiting rooms because it may affect how they feel about and perceive the care they receive. There is literature on the design of outpatient waiting rooms in doctors’ offices/in the hospital as well as studies on the design of the therapist’s office itself, but there is little known literature on the impact of psychotherapy waiting rooms.

If you have any questions or concerns about the manner in which this study was conducted, please contact the Connecticut College IRB Chairperson Audrey Zakriki at alzak@conncoll.edu.

If you are interested in this topic and want to read the literature in this area, you might enjoy the following articles:

Cohn, E. S. (2001). From waiting to relating: Parents’ experiences in the waiting room of an


You may also contact me Lilly Noble at lnoble@conncoll.edu for additional resources.