“Don’t Speak About Us Without Us”:

Design Considerations and Recommendations for Inpatient Mental Health Environments for Children and Adolescents

by

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ABSTRACT

This thesis explores the relationship between inpatient mental health environments and children and adolescents. Research was conducted by way of observation, questionnaires, interviews, and reading floor plans, partnering with two hospitals in Ontario that offered inpatient child and adolescent mental health services. The primary goal of this study was to develop considerations and recommendations that inform design decisions. I set out to gather the opinions and insights of children and adolescents who were inpatients in these facilities. The staff were also interviewed to capture their views on the role that the physical environment can play in supporting and enabling them to do their best work., The research provided a portal into a complex and sensitive area of study, and offered insights into the experiences and preferences of the children and adolescents. Their perspectives and stories contributed significantly to the knowledge gained in this exploration.

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My title “don’t speak about us without us” is an African proverb (Children’s Mental Health Ontario, n.d.a). The primary goal of this phrase used by this child and youth advocacy is to elevate the voice of youth. This term echoes the essence of my research study, speaking together with youth about youth.

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To all, my heartfelt thanks.

Dedicated to

Karen Elaine Beasley (1945–2005)

and

Janine Rachel Pellegroms (1938–2011)

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CHAPTER 1:

INTRODUCTION

A significant number of children and adolescents in Ontario suffer from a variety of mental health issues: “15%–21% of children and youth in Ontario have at least one mental health issue” (Centre for Addiction and Mental Health, 2010). At least 500,000 Ontario children—up to one in five under the age of 18—have difficulties that can be diagnosed as a serious mental illness (Gionas, 2011). Mental health services and facilities are, therefore, needed for this population.

There are mental health resources available for children, adolescents, and families. Many of these are available online and offer information to help people understand a range of mental disorders. For example, tips, and suggestions for handling issues, coping skills, games, and places to ask questions are offered. For example, an Ontario web service, mindyourmind.ca (n.d.a), has a staff of clinicians, gamers, youth as well as structured information for kids where they spend most of their time—online. Children’s Mental Health Ontario (n.d.b) also offers information and provides assistance in finding treatment options.

For many children, adolescents, and their families, these online and outpatient community resources provide the help that is required. If outpatient treatment is not effective or has outgrown its usefulness, then admitting a child or adolescent to an inpatient facility is often the next step. Inpatient diagnosis can include a specific disorder or combination of disorders. These illnesses include eating disorders, obsessive compulsive disorder, psychosis, depression, anxiety, suicide ideation, suicidal attempts,

autism, extreme aggression, adjustment disorder and behavioural issues (J. Orchard, personal communication, October 22, 2010). Children and adolescents are admitted to an inpatient mental health unit either as a planned and scheduled admission or through an emergency room after a crisis has occurred (M. Folks, personal communication, April, 2009).

My involvement as an interior designer working in design teams and on hospital projects in Canada has made me familiar with the complexities of running a hospital. I know that hospitals have limited funds to provide the necessary equipment, technology, and staff for each department. In addition to the choices made for space allocation, materials, and architectural details, the selections need to ensure ease of maintenance and limit the spread of infection. I challenge the status quo that effective inpatient spaces designated for children and adolescents cannot ensure ease of maintenance and limit the spread of infection while also incorporating hospitals' funding realities. Dak Kopec (2006), an environmental psychologist and architect, contends that "…the interior design of healthcare facilities is critical to both patients' and healthcare providers' ability to establish a sense of attachment, belonging, and personal control." (p. 220).

As a practising interior designer with 15 years' experience specializing in the health care sector, I have spent many hours in hospitals, long-term care facilities, and clinics. The spaces allocated to inpatient children and adolescents during a pivotal time in their healing are frequently barren, sparse, and overscaled and feature primarily hard surfaces. I determined that this subject warranted further exploration, and chose to investigate specific design considerations and recommendations that could inform future child and adolescent inpatient mental health facilities. My research was based on direct

observation, contact with inpatients and staff, and the application of current theoretical experiential models in the field of mental health care.

My thesis examines the need for suitable inpatient mental health treatment facilities for children and adolescents in Ontario. Two hospitals in Ontario that offer child and adolescent mental health services— Rouge Valley Health System, Centenary Campus, in Toronto, and the Windsor Regional Hospital Maryvale Campus, in Windsor—allowed me access to research this complex subject. My research was designed to capture the voices of the children and adolescents admitted into one of the mental health facilities regarding their experience of the environment. My intention was to gain insights and firsthand accounts from them. Carl Moustakas psychologist, researcher and author (1994) stated: "First-hand observation and participation enables the researcher to gather data through direct experience and thus are able to understand and interpret the setting and participants being studied and evaluated" (p. 4).

1.1 Waiting for Inpatient Care

Many children and adolescents who have been diagnosed with mental disorders and are referred for inpatient treatment in Ontario are on waiting lists. For those with non-urgent cases, the average wait for services at Ottawa's Children's Hospital of Eastern Ontario (CHEO) is two to five months (Tam, 2010, p. A1). While awaiting treatment, sometimes for as long as a year, many of the children's challenges intensify, sometimes becoming critical, thereby affecting not only the individual but their family as well. Former Ontario Health Minister David Caplan has stated that successful outcomes for children depend on early treatment (Gionas, 2011). Early intervention is crucial. To

decrease the amount of time spent waiting, new spaces need to be created, and they must be designed with the specific needs of this patient population in mind.

Headlines in the *Ottawa Citizen* have trumpeted the issue: “Mental health crisis at Children’s Hospital of Eastern Ontario: Hospital struggles to meet demand of children needing urgent care” (Tam, 2010, p. A1). Dr. Simon Davidson, Chief Psychiatrist at CHEO, pointed out that the bed shortage was a symptom of the Province’s chronically underfunded mental health services (Tam, 2010, p. A1). Children and adolescents were currently being admitted to CHEO based on the degree of urgency—that is, those children who were considered to be an imminent danger to themselves or to others. Risk factors for imminent danger included the level of family and community support, whether bullying was involved, and the severity of symptoms such as crying, sleeplessness, anxiety, and substance abuse (Tam, 2010, p. A1).

In November 2010, CHEO struggled with a spike in the number of children and adolescents requiring urgent care for depression, anxiety, and suicidal thoughts. This abrupt increase occurred following the suicide of 14-year-old Daron Richardson, the youngest daughter of the Ottawa Senators hockey team’s Assistant Coach. Services offering suicide prevention support were struggling to meet current demands and were now “dramatically under-resourced” (Gionas, 2011).

Thirty-nine children and adolescents were admitted for mental health issues in November 2010—twice the number admitted in the same month the previous year. Dr. Davidson could not fully explain the increase but did indicate that the economic downturn was putting additional pressure and stress on families that could lead to additional anxiety, depression, and panic attacks in children (Tam, 2010, p. A1). He

added that recent teen suicides and cases of bullying reported in the media may have made children and adolescents more comfortable with seeking help instead of suffering in silence (Tam, 2010). Alex Muster, the past Executive Director of the Youth Services Bureau which provides mental health services for teens, indicated that Ontario needed to strengthen its psychiatric services as the stigma surrounding mental illness lifted:

> "The culture is changing, and the shroud of shame and stigma that has surrounded mental health is receding, which is good news," Munster said. "And that also means that people are starting to seek help, where maybe in the past they haven't." (Tam, 2010, p. A2)

1.2 The Family's Involvement

Another important factor in the treatment of mental illness in children and adolescents is the impact that the individual in crisis has on their family and support system. Consideration has to be given to an inpatient's circle of support, primarily the family. Michelle Folks, Clinical Manager of CHEO, indicated that when a child arrives at CHEO for inpatient treatment, the hospital would have "a family in crisis, not just a child in crisis" (M. Folks, personal communication, April 2009). In addition to the environmental needs of the patient, treatment and visiting areas for the families also have to be considered and thoughtfully integrated.

When it is medically appropriate, a child's family may become involved as part of the treatment plan. Parents, siblings, and guardians can, and often are, part of the education, treatment, and therapeutic process. The family's involvement and visits take place within the confines of the unit. For confidentiality and privacy purposes, the families cannot leave the unit or visit on the facility grounds.

Specific to the interior layout, meetings, counselling sessions, and visits ideally occur adjacent to areas frequented by staff. Close proximity ensures that visual sightlines

are maintained and sound can be heard. When children meet their families without a staff member present, the visits are closely monitored to allow staff to intervene as needed. My observations at Rouge Valley and Maryvale showed me two facilities with differing approaches to child and adolescent inpatient mental health. Each facility had a range of solutions for family areas as well as treatment and patient spaces.

At Rouge Valley, the spaces allocated for family visits were limited. Family visits took place in a room where the primary function of the space was not visiting, such as a classroom, dining, activity, meeting, or the TV room. During my stay, these rooms were in continuous use. Previously, they had been bedrooms that housed two patients; as a result their scale was not appropriate for smaller visits and intimate meetings. Kopec (2006) asserts that “interior components with a home-like aesthetic will create a sense of familiarity and security” (p. 220). At Maryvale, visiting families had more choice. Family visiting rooms incorporated lounge seating, meeting room style seating, and a larger living room. The two rooms which were smaller in scale were, unfortunately, located away from the main corridor which eliminated the possibility of unobtrusive staff observation. Staff who had the task of overseeing the family visits had to stand in the corridor outside the room or frequently walk by the door. This is distracting for the family and requires direct observation by the staff person.

1.3 Definition of Terms

For the purpose of this study the term *child* applies to a person up to 12 years of age. The term *adolescent* refers to a person aged between 13 to 19 years. This is representative of the Ontario Hospital funding models and in keeping with the industry nomenclature.

1.4 Significance of the Study

In 2004, suicide in the United States was the third leading cause of death for youth between the ages of 10 and 24 (Lubell, Kegler, Crosby, & Karch, 2007). In Canada, suicide is the second leading cause of death. In Ottawa, the number of hospital visits related to youths harming themselves is higher than the Provincial rate (Eveall, Bostik, Paulson, 2006). Hospitals that offer inpatient services should address the growing number of youth admitted with mental disorders in a sensitive and proactive manner (Tam, 2010, p. A1).

Depression can often recur in repetitive cycles. In order to minimize repeated depressive cycles in children and adolescents as they age, early detection and intervention are crucial. Providing the necessary coping skills could enable children, adolescents and their families to identify and intervene in the depressive cycle. This could be accomplished through outpatient and inpatient services. If the facilities that house children and adolescents with mental disorders could be designed to fully support the needs of the children at the time of their first admission, the children would have the best chance of recovery and potentially reduce subsequent occurrences (Gionas, 2011).

Healing environments are designed to reduce stress for patients, staff, and visitors. Space that is not stress inducing and does not add to patients' stress or illness allows staff to focus on treating the presenting disorders without having to take potential environmental factors into account as well. Spaces for children and adolescents that are well designed allow the staff and patients to do their work effectively and without disruption. A sense of control and access to positive distractions for the patients are environmental aspects that can assist with stress reduction. (Fottler et al., 2000). One of

the study's participants, Little Miss Smiley[1] supported this idea in her response to the questionnaire. Her thoughts on creating a space that she could relate to better were that,

> . . . if you could make the interior environment more kid and teenager looking and feel to it, it would take away the gloomy feeling and add a little spunk! It would make us feel more comfortable and at ease with things.

The findings of this study are meant to inform and serve to improve the children's and adolescents' inpatient stay. Designing an environment that fully supports patients' needs would allow them to concentrate on recovery. Secondary beneficiaries would be the staff who would able to do their best work in an appropriate and accommodating environment. Others that would benefit from the findings of this study would be the patients' families, designers for hospitals that offer inpatient mental health services, and the design community generally.

1.5 Objectives of the Study

The objectives of the study were twofold: first, to ascertain if existing mental health treatment facilities are meeting the needs of inpatients and hospital staff; and secondly, to offer considerations and recommendations that can be implemented in the built environment. In order to accomplish these objectives, information was gathered from the occupants of the mental health units—the inpatients and the hospital staff.

In response to my first objective, I sought the voices of the children who were temporarily admitted into inpatient mental health units. I particularly focused on exploring their thoughts and perspectives regarding their environment while in care. In addition, I investigated the perspectives of the hospital staff. Their observations and knowledge of how the children responded to and engaged with the unit's physical

[1] The participant's real name has been changed to protect her identity. The names included in this thesis are those chosen by the participants themselves.

environment were valuable elements to consider and incorporate in my findings. Staff perceptions were important in determining the suitability of existing hospital environments and are vital for creating considerations and recommendations that would allow an optimal work environment for the provision of mental health treatment.

Together, these combined insights offered an holistic summary of the elements required to guide the design process towards directly addressing the needs of the patients and the staff.

1.6 Scope and Limitations

In this thesis, I examine the effect of the physical environment of inpatient mental health facilities on young patients and the supervising staff. Through questionnaires and interviews, I sought to ascertain the perspectives of children and adolescent patients and staff regarding these facilities. Before I administered the questionnaires and conducted the interviews, consent was obtained from the participating hospitals and staff as well as the patients themselves. Given the age of the participants, parent and guardians were required to provide consent on their children's behalf.

Access to the children was predetermined and limited. The staff at the participating hospitals determined if a patient was suitable to participate in the study. Their recommendations were based on the following criteria: the child's diagnosis, current emotional and psychological state, length of stay, parents' consent, and the child's willingness to participate. Other limiting factors that determined participation were the size of the units, the number of beds, and the length of stay. Currently, child and adolescent mental health facilities in Ontario have an average of six beds in each unit. The number of beds available for treatment is based on the complexity, sensitivity,

urgency, and the caregiver-to-patient ratio. Some patients who require longer services and treatment stay up to six weeks (J. Orchard, personal communication, October 22, 2010), and the average length of stay at Maryvale and RVHS is five to eight days. Low patient turnover limited the number of children available to participate in this time-limited questionnaire. In addition, the stresses that families experience when admitting a child into a hospital may have limited their willingness to provide consent for their child to participate in this study.

CHAPTER 2:

THEORETICAL AND CONCEPTUAL FRAMEWORK

My research was guided by a phenomenological approach, with the intention of understanding the lived experiences of children and adolescents with mental disorders. I wanted to listen to their experiences so as to be able to determine their specific needs, and to be better equipped to design appropriate inpatient child and adolescent mental health facilities (Kirby, Greaves, & Reid, 2006).

Children who are admitted into inpatient mental health programs are a unique population with specific needs. They are more vulnerable to changes in their physical, emotional, and social environments because of their rapid physical and mental growth and smaller body size (Mental Health Europe, 2009). Because of these factors, mental health units designed for adults tend to be inappropriate and overscaled. In addition, typical services available in hospitals—such as diagnostic imaging and surgical suites—are of no benefit to the children being admitted as these services are not required for mental health treatment. Unfamiliar, immense institutional environs can add to the apprehension created by being away from home, creating additional stress. Kopec (2006) noted that the effects of stress are more profound in children than in adults, because children “are less capable of adapting” and the number one stressor for children is separation from family (p. 160). With this information, why then are the needs of the children and adolescents not considered as important as the hospital budget and given greater priority?

The built environment of an inpatient child and adolescent mental health facility should not add strain or unease to an already difficult and stressful situation. Inpatient child and adolescent mental health services are best suited to small-scale, residential style facilities. Kopec (2006) succinctly outlines the connection between children's developmental stages and the role the environment plays. My observations confirmed Kopec's assertions. Currently, inpatient children and adolescents spend the majority of their time in communal spaces that offer and encourage interaction, communication, activities, and therapies (J. Orchard, personal communication, October 22, 2010). Family members visit in dining rooms and living rooms, as they would at home. The residential-style facility at Maryvale resembles home life with its familiar scale. It mirrors a home with distinct areas for eating, activities, bathing, resting, and sleeping.

A suitable and supportive environment can be provided for the children and adolescents who require mental health services in the hope that they can learn essential skills and not need inpatient services as adults. Good mental health in childhood is a prerequisite for optimal emotional and psychological development, productive social relationships, effective learning, the ability to care for oneself, good physical health, and effective economic participation as adults. Fifty to seventy percent of mental disorders present in adult life have their onset during adolescence (Mental Health Europe, 2009, para. 1). When such difficulties arise in vulnerable individuals such as children, the space that is designed to support them should incorporate the appropriate level of sensitivity and scale to address their developmental needs (Kopec, 2006).

2.1 Voices of Children and Adolescents

Literary theorist Susan Sontag (2003) affirms the importance of direct experience; without it, "the rest of us are voyeurs, whether or not we mean to be" (p. 42). Designers can research and provide recommendations on what constitutes a suitable inpatient mental health facility, but unless they obtain first-hand experience, their research will not benefit from the stories of the users of the space. Capturing the experiences of children and adolescents provides a unique viewpoint into "how participants interpret their social reality" (Kirby et al., 2006, p. 221). Discourse analysis of the children and adolescents experiences while in care provided significant and detailed information that informed my study. Maurice Merleau-Ponty (2008) states "This world which we are to rediscover is the 'world of perception', which is the world *as* we perceive it" (2008, p.6). Evidence was gained from the collective participants situated in a particular and common environment, that of the inpatient child and adolescent mental health facility. I set out to record the perceptions of the children and adolescents while in care.

2.2 Power and Observation

Michel Foucault's (1965, 1977) historical explorations highlight the relationship between space and power. Power exists where there is a relationship and particularly where one person is in authority over the other. For example, the transmission of knowledge involves instruction, and learning entails submission (Belsey, 2002, p. 54). Children and adolescents who are admitted into an inpatient mental health unit submit to those in power. Families and doctors make the decision to admit young people, presumably with the intention that it is the best decision for those children given the particular circumstances**.** Once children are admitted for specialized care, they relinquish

their own personal power. I believe it is the responsibility of the design team to conceive of a facility where the patients' dignity can be ensured and their freedom of choice can be exercised and protected.

The design of mental health facilities evolved from the penal model. Since the mid-1700s, people with mental illnesses were contained alongside inmates, in prisons (Foucault, 1965, p. 39). It was thought that those who were mad and without reason were not human and did not hold the same personal rights as those with all their faculties. When studying the development of mental health environments, the research path crosses that of the penal system as they originated from the same classification. Asylums were constructed with the same building form and philosophy as prisons - containment.

The English philosopher Jeremy Bentham used social utilitarianism in his 1791 design for an all-seeing Panopticon prison. This architectural style would achieve surveillance of individual prisoners without the prisoners' awareness. Sightlines to view the prisoners would be clear while the sightline back to the guards in the tower would be visually obstructed (Bartky, 1988). This prison model was thought to improve how the prisoners conducted themselves as they would never be certain if they were being observed or not. While the appropriateness of this prison design model is contentious, I believe that its one-way and less obvious monitoring system could be used for unobtrusive observation. In this model, the prisoners did not know when they were being observed and the guards were remotely positioned. Both of these factors would be stress inducing. Patients in mental health units do require observation and monitoring for their well-being and to chart their progress. An effective design solution could accommodate for monitoring while still maintaining the dignity of the patient.

Space could be designed to allow for unobtrusive and passive observation and monitoring. “Space is fundamental in any form of communal life; space is fundamental in any exercise of power” (Rabinow, 1984, p. 252). Effective and purposeful planning could accommodate for the necessary task of observation without resorting to two-way mirrors. In his work *Discipline and Punish* Foucault (1977) analyzed and categorized space to illustrate power. I borrow and extended Foucault’s terms to exemplify the application to an inpatient child and adolescent mental health facility (Deflem, 1999; Foucault, 1977).

2.2.1 Categories of Space

Enclosure. Individuals are contained in closed places which are heterogeneous to all other places—for example, confinement, workshop, factory— to allow for flexible and detailed control. In the case of my research, an enclosure would be the mental health facility itself.

Partitioning. Within these spaces there are further divisions so that each individual has his or her own space; space is divided into as many sections as there are individuals, to organize an analytical space for example cells. In the case of my research study, patient bedroom would be an example of partitioning.

Individuals are functionally interchangeable. The unit is, therefore, neither the territory (unit of domination), nor the place (unit of residence), “the rank: begins to define the great form of distribution of individuals” (Foucault, 1977, p. 146).

While at RVHS, I observed that the inpatients bedrooms offered no opportunity for the children’s and adolescents personal mementos to be stored and displayed. The rooms were barren and there were no cues to indicate that the space was occupied by a child or adolescent. At Maryvale, there was also no evidence of a solution to provide the

patients the opportunity to display their personal photos and mementos. However, the bed linens incorporated an age appropriate comforter on the bed with a coordinating side chair. The choice of pattern and colour was unfortunately signalled a feminine expression with pink flowers.

To ensure that individuals are not treated as interchangeable, inpatient mental health spaces can be personalized by the children and adolescents themselves to ensure that one individual is not functionally replaceable with the next. Personalizing space would also serve as a means for the patients to demonstrate a level of control over their environment.

The connection between power and space is evidenced in the physical environment. People's rank in society is often confirmed by how they are treated, housed, and the type of space they are allocated. Foucault identified someone who would otherwise be defined as outside the majority as Other (Foucault, 1965). Foucault's use of the term Other can be applied to my chief research participants, the children and adolescents. While in care, the patients are outside the majority.

Foucault's work explored what have been classified as human sciences. He declared that knowledge is constructed through people's experiences and subjectivity (Emerling, 2005). Following Foucault, I situate my study participants as a distinctive and unique group of children (Hubbard, Kitchin, & Valentine, 2004, p. 121) who can also be defined as the Other. The children's perception of the space is the primary consideration in my study. Capturing first-hand accounts from their perspective could inform the type of built space that would positively affect their experiences while admitted to an institutional facility. The elements of the space that the children and adolescents identify

as important to them should be considered primary; and should take precedence over the opinions of staff and the design team, unless the safety of the patients becomes an issue. Foucault stated, “madness deals not so much with truth and the world, as with man and whatever truth about himself he is able to perceive” (Foucault, 1965, p. 27). Integrating elements that the children and adolescents have determined are important to them while admitted can ease their stress, provide comfort and familiarity.

2.3 An Existential-Phenomenological Position

My research is guided by the theory of phenomenology, that is, the interpretive study of human experience. Phenomenology can be broken into three dominant streams: first-person, hermeneutical, and existential phenomenology (Seamon, 2000a, 2000b). First-person phenomenological inquiry uses the researcher’s own firsthand experience. Hermeneutics is the theory and practice of the interpretation of texts. Existential phenomenological research studies the experiences of specific individuals and groups involved in actual situations and places. Existential phenomenology provides a research framework in which to situate my study. I employed an existential phenomenological approach to record the experiences of specific individuals and groups—that is, children and adolescents situated as patients in mental health facilities—involved in actual situations and places (Seamon, 2000a, p. 3).

Maurice Merleau-Ponty connected perception with the lived body; his philosophy situated “the human body at the centre of the experiential world” (Pallasmaa, 2005) and posited that our minds and bodies are not separate entities but are inextricably connected. As human beings in and of the world, our awareness of ourselves and the objects around us begins with our senses and experiences. It is through our perceptions that we

understand the objects that exist in our world and our environment (Collinson & Plant, 2006). Our bodies and our minds are connected to a material, physical world. We interact and physically move through environments and space. Our physical experiences report to our brains and thoughts, opinions, and insights are formed (Emerling, 2005). Perception involves the perceiving subject. In the case of this investigation, the children's own accounts of their individual experiences were captured.

As individuals we gain information from our surroundings and modify our behaviour accordingly. Well-designed mental health facilities should assist with the children and adolescents recovery "a good or bad environment promotes good or bad memories, which inspire a good or bad mood, which inclines us toward good or bad behaviour" (Gallagher, (1993) p. 136).

The main focus of my research was to examine first-hand whether inpatient child and adolescent mental health environments suited and supported the patient's specific needs. The process that I followed to conduct my research was similar to that outlined by David Seamon (2000a) in Phenomenology, Place, Environment, and Architecture. Seamon identified the research steps as follows: identify the phenomenon; gather descriptive accounts from respondents regarding their experience; carefully study the respondents' accounts, with the aim of identifying any underlying commonalities and patterns; and present the findings. Seamon's phenomenological work delves into the relationships between people and architecture. His methodology is well-suited to the study I chose to undertake. His identified research phases are sound and parallel my experience and use of the design process with the research, design development, documentation and dissemination phases.

Steven Holl, Juhani Pallasmaa, and Alberto Perez-Gomez (2006) suggest that: "the final measure of architecture lies in its perceptual essences, changing the experiences of our lives" (p. 119). I wanted to explore this statement and consider whether the environment could affect the children's experiences. I set out to determine if the built environment could contribute to the children's experience in a positive manner and support their recovery.

Also contributing to my understanding of phenomenological model was the work of Maurice Merleau-Ponty and Juhani Pallasmaa. Merleau-Ponty (as discussed in Emerling, 2005, pp. 214, 215) argues that knowledge of the world begins with lived, embodied experiences and that bodies are connected to the material world. Juhani Pallasmaa (in Holl et al., 2006, p. 119) also examined the relationship of individuals to the environment and how that connection could change and affect each particular experience in our lives. I believed that this would assist me in decoding the relationship between environment and behaviour.

By speaking directly to the patients to determine their preferences and understanding their developmental needs provides critical information that can inform design solutions. Environments that are designed with the precise needs and requirements of the individuals who will occupy the space – the children and adolescents, allows the patients to recover in an environment suited to their distinct needs.

CHAPTER 3:

LITERATURE REVIEW

Many disciplines have contributed perspectives to the multi-disciplinary topic of inpatient child and adolescent mental health. For the purposes of this study, I have drawn upon research into the history of asylums, hospital design, paediatric health care, mental illness, the Canadian Health Care System, environmental psychology, and patient-centred health care models. These subject areas situate the project and contribute to more defined positions of the themes and issues. I use them to research the value of patient-centred care, space allocation, and the value of user contribution. I elaborate on how patient-focused design and care can ensure that each patient's healing experience reflects their own personal needs and preferences. This may foster a sense of involvement in the process, and it also recognizes and values each patient as an individual.

In order to provide context and relevance I present the historical aspects of mental health facilities.

3.1 History of Asylums

An examination of the history of asylums and views of the mentally ill reveals the need for shifts in attitudes and environments for those requiring treatment. Michel Foucault's (1965) *Madness and Civilization* presented a theory using history as a means to explicate the development of mental illness. His analysis exposed the relationship between society and those with mental illness.

With the eradication of leprosy in the 1600s, it became necessary to replace this marginalized group with another sector of society to label Other. Madness became the

focus and those who were considered eccentric, witches, or unstable were now a group of people to view and treat differently (Foucault, 1965, 1997).

During the Renaissance (ca. 1400 to 1600), those who were mad and considered without reason still lived amongst us but with the Classical period (ca. 1750 to 1820) came shame. Exclusion from society was increasingly seen as a means to avert scandal. Family honour necessitated the disappearance of the family member who by "vile and abject habits" (Foucault, 1965, p. 7) disgraced his or her relatives. With societal rejection and exclusion these madman and madwomen now "found themselves outside the social order" (Rabinow, 1984, p. 341). Those who were classified as mad were shut away from the rest of society and treated as nonbeings. They were contained in enormous houses of confinement which were considered to be the natural abode for the confused. Foucault noted that in Paris, the king commonly used confinement as a means of punishment for criminals. There was little distinction drawn between the segregation of criminals and that of the mad. The loose distinction between madness and criminality allowed for further negative treatment of a category of people that was undeserved.

Mary Guyatt (2004), in her work "A Semblance of Home: Mental Asylum Interiors, 1880–1914," reported that by the 1840s of the Victorian era, a new form of treatment had replaced the beatings, purgings, and near-drownings inflicted on the insane. The new treatment, *moral therapy*, was based on the theory that patients responded better when offered a combination of light work and kind attentive care (Guyatt, 2004, p. 49). In the Victorian era, Lunacy Commissioners made frequent visits to each asylum on behalf of the government. Guyatt noted that as the century progressed, more and more asylums signed up to the principle that patients "rise or fall with their surroundings, and

the greater the tendency to mental deterioration, the greater the need of an inspired environment" (Guyatt, 2004, p. 59).

After completing the rounds at Bootham Park in the summer of 1906, two committee members dryly observed: "We are thankful there are such institutions and very thankful that so far we do not require to be kept inside any longer than to pay a visit" (Guyatt, 2004, p. 63). Guyatt (2004) went on to state and conclude that, "clearly, in spite of everything that might have been done to make the asylum interior more homely, it would never be a place where a *normal* person would choose to live" (p. 63)**.** The commentary provides an account of the general societal view of the Asylum in 1906. Looking to the present day, I believe that this is still a prevailing opinion.

There have been attitudinal shifts, and the awareness of mental illness has increased. There are programs with high profile spokespeople, and corporate sponsors work to raise awareness such as the Bell Let's Talk campaign with Clara Hughes. The stigma which surrounds mental illness is being eroded but I maintain there is still a negative aura associated with mental disorders. Until mental illness is viewed as another disease, a disease without a negative connotation—like diabetes, for example—a shadow of shame will continue to surround mental illness. There are many advancements to be made and it is imperative to the mental health of our nation's youth.

3.2 Contemporary Health Care Design Models

In her book, *Medicine by Design: The Architect and the Modern Hospital, 1893–1943,* Annemarie Adams (2008), Professor and Architectural Historian, examined hospital design chronologically. She studied archival and historical architectural floor plans, records, and images of hospitals to explain the history of hospital design.

Illustrated and evident in the architectural drawings are the decisions that represent historical trends in the medical profession, technology, and community values. Societal views towards the ill revealed by her work contextualize the architecture and explain how the placement of specific elements in the built environment evolved. An example would be that wealthy patients were admitted through the main entrance and experienced a smooth transition into the hospital, whereas poorer patients would enter through the basement and encounter a maze to reach the admitting area (Adams, 2008). Adams's research assisted in my understanding and decoding of the movement and treatment of goods, staff, and patients. Utilizing her methods, I read the floor plans of each of the partnering hospitals to help me understand the facilities' attitudes and context. I examined the space that was allocated to each of the two units in the partnering hospitals, along with the furniture and equipment that supported the units. Together with my observation and interviews, the review of the floor plans helped me decode and extract valuable information.

Another component of Adams's work has contributed to the body of knowledge; her study of children's preferences in a health care setting, David Theodore and Patricia McKeever's (2006) "Pictures of Health: Sick Kids Exposed." This study contrasted historical images of children in Canadian hospitals with that of contemporary images that inpatient and outpatient children made themselves at the Hospital for Sick Children (SickKids) in Toronto. The study gave the children power to identify the elements of their environment that were important to them. The findings showed that the children made photographs that were categorized as views and places outside the hospital and, images that conveyed playfulness, socializing and fun. The researchers drew the

conclusion that the children wanted to escape their hospital environment and that distractions offered a coping mechanism. Adams, Theodore, and McKeever (2006), also saw the value in listening to children directly. This study captured the children's voices through their photographs.

Looking to and understanding other models for alternate care methods can inform the topic of child and adolescent mental health. Health models that originate from acute health care and long-term health care—such as Planetree (n.d.) and the Eden Alternative (n.d.)— can provide useful insights. These models offer concepts that can inform the design of inpatient spaces.

Planetree was founded in the United States in 1978 by Agenlica Thieriot, a former patient. The Planetree vision stems from a central theme: *patient-centred care*. Each patient is an individual with unique and diverse needs. Patients and families are encouraged to participate and are offered choices for aspects of their care, such as waking times, meal times, food type, activities to participate in and options for where to visit family.

The Eden Alternative (n.d.), was founded in 1991 by Dr. William Thomas, a Harvard educated physician and board certified geriatrician. His principle-based philosophy empowers *care partners*, the owners and operators of Long Term Care Facilities to transform institutional elements of care. The philosophy's key principle sets out to create a facility with a community where *life is worth living*. The Eden Alternative mission statement aims to aspire and improve the lives of elders and their care partners by transforming the communities where they live and work. An elder-centred community is committed to creating a human habitat where life revolves around close and continuing

contact with plants, animals, and children. A study conducted between 1999 and 2005 (Eden Alternative, n.d.), reported a decrease in the use of antidepressant and psychotropic drugs and the use of restraints (p. 26). Another reported benefit was the decline in staff absenteeism during the same period (Eden Alternative, n.d., p. 26).

Planetree (n.d.) and the Eden Alternative (n.d.) are successful models of patient care that incorporates personal choice and a sense of community. These concepts exemplify a model of care that could contribute to effective mental health facilities and programs. Offering options for where activities take place and where to visit family, for instance, could provide the children with an element of control over their environment. A residential style facility would also echo and reinforce the familiarity of a community: that of the family unit.

The *Health Environments Research and Design Journal* (*HERD*), published quarterly, is a forum for sharing information and the latest research on the built environment specific to health care facilities. In their *HERD* article, "A Conceptual Framework for the Domain of Evidence-Based Design," Roger Ulrich, Leonard Berry, Xiaobo Quan, and Janet Turner Parish (2010) stated: "Personal control over the environment can improve patients' physical and emotional comfort and contribute to healing by facilitating coping with stress effectively" (p. 103). Enabling patients to individually control lighting and television programming, personalize their rooms, and have access to the outside via windows and gardens, can minimize stress levels. These design elements could be incorporated into the design process and construction of inpatient units and related spaces.

Environmental Psychology informs the body of interior design knowledge. Understanding how people interact and utilize space results in a built environment that functions and supports the intended use. Knowledge of the developmental stages of children and adolescents assists with the understanding of what type of interior space is best suited to support growth and progression. Dak Kopec, an Environmental Psychologist and Architect, in his work, Environmental Psychology for Design (2006), outlines the human factors that affect behaviour and elaborates in detail the particular environmental considerations affecting different categories of space. I utilized Kopec's research (2006) to build my knowledge of environments for youth, and healthcare environments.

3.3 Benchmark Design Projects

Conscientious architects and designers who involve the users in the design development of health care projects can arrive at mature and thorough design solutions. I have been involved in the user process and have seen firsthand the benefit of their feedback and involvement. Unfortunately, design projects that involve the users of child and adolescent mental health facilities are not common practice. Child and adolescent mental health facilities could benefit from incorporating user contribution in design development. The multi-levels of consent required together with the concerns about children and adolescents wellbeing are prime considerations when determining if the direct reporting process is possible.

A British organization, Building Better Healthcare (BBH; 2010), featured a mental health project at their "Designing for Mental Health Conference," which explored how the built environment can help with the healing process. Taking cues from health

care projects and looking at benchmark projects from other countries confirmed that user input was valuable and could be achieved. Involving the user might add complexity to a design project, especially given this vulnerable population; however, the outcome would result in a stronger design. Joe Forster, chairman of the Design in Mental Health Network and a mental health nurse in Liverpool, United Kingdom, stated: “getting a group of architects into a mental health environment is a logistical nightmare, but something which I think is very important” (Building Better Healthcare, 2010, para. 36). At the conference, Dr. Nick Rhodes indicated that “the answer is to design facilities which give patients, who often have no choice over whether or not they are taken into hospital, a feeling of dignity and control in a life they have increasingly lost control of” (Building Better Healthcare, 2010, para. 6). A former patient commented that being involved in the steering group for the new psychiatric intensive care unit was a positive experience in what was a negative time in her life (Building Better Healthcare, 2010, para. 7)**.** In addition to assisting me with my research objectives I hope my participants feel the same way about their contribution.

Given the nature of my thesis, it was essential to review the literature that stemmed from the many disciplines that contributed to my study. This review provided the necessary material and context that informed and contributed to my work.

CHAPTER 4:

METHODOLOGY

4.1 Research Design

The primary focus of this mixed-methods study was to obtain first-hand reporting from children and adolescent inpatients of mental health care facilities. I wanted to learn how participants interpreted their social reality when admitted into a mental health facility. I used a phenomenological research approach to gain insights and relevant, significant information. As the users of the space, the children's and adolescents' perceptions and lived experiences were invaluable and I gave them primary focus.

The design of this research was centred on unobtrusive observation, questionnaires, a series of interviews and a process of reading and decoding floorplans. Initial contacts with hospitals in Canada that offered inpatient child and adolescent mental health services assisted my understanding of the range of issues specific to the facilities and the demographic I wanted to study. The awareness of each of the hospitals' ethics review processes, administration, and programs assisted me to understand the intricacies involved in conducting research within a functioning inpatient child and adolescent mental health unit. This initial contribution was significant in determining which methods to employ and how to structure my research.

Building on the work of Kirby et al. (2006), I determined that a combination of quantitative and qualitative questions would provide the participants the opportunity to fully explain and express their answers. Kirby et al. (2006) state: "with respect to methodological orientation, we embrace both qualitative and quantitative approaches and encourage the use of a combination of methods to reveal useful data" (p. 15). I structured

the interview process questions to receive and capture phenomenological children's reporting—their opinions, perceptions, and views—about their physical environment.

In my multiple research method, I distributed two questionnaires, one to the children and the other to the adolescents, in advance of controlled interviews which were conducted at a later date. The language of the questions was carefully constructed to ensure it adhered to the norms of the specific facility. Both questionnaires combined quantitative and qualitative components. The children's questionnaire solicited Yes/No answers. The adolescents' questionnaire provided a range of possible responses using a Likert scale, under the assumption that adolescents could discern subtle differences offered by a scaled answer. The questions were arranged in two main categories: the first portion solicited input regarding the children's individual bedrooms in which they resided during their stay at the facility and second, and their input on the overall facility of the cottage. Questions were further divided into subcategories to isolate and consider issues such as privacy, flexibility, colour, light, views, safety, noise, and comfort.

The interviews were intended to capture additional information not covered in the questionnaire. They provided an opportunity for participants to elaborate on key questions and themes introduced in the questionnaire, allowing participants to freely express their own personal experiences and opinions without the limiting matrix of a questionnaire.

Reading the floorplans of the partnering facilities was performed as a means to understand the many issues associated with inpatient child and adolescent mental health facilities. The process of decoding the plans, combined with my observations, aided my understanding of the value given to the children and adolescents being admitted. The type

of space, location, and the size allocated to the patients and the supporting functions communicate the importance and priority placed on this vulnerable sector.

4.2 Research Instruments

I employed one questionnaire and one interview guide per child participant and the same per adolescent participant; hospital staff participants were interviewed once (see Appendices D to H for the sample questionnaire and interview instruments). Each questionnaire and interview guide was composed differently and the wording was specific to each participating facility as well as each demographic. Age-appropriate wording was used for each questionnaire and interview. The children's version used simpler language, such as Question 22, "I like the area where I can visit with my family?" which could be answered with a Yes or No while for the same question in the adolescent version, a range of answers was provided, from 1 (strongly disagree) to 5 (strongly agree).

Early in the process, I contemplated the use of cameras, photographs, collage, and drawing as a way to allow inpatients to communicate their feelings of their environment. Michelle Folks, Clinical Manager at CHEO in Ottawa, indicated that some children suffered from paranoia and that a camera would induce counterproductive effects. In addition, one of the original intentions for the questionnaire was to have the participants draw a picture in response to a question. This would help facilitate my memory of the participant as well as employing the image in the final coding and presentation of the research in lieu of using the actual participant's name. However, both of the participating hospitals asked that this question be removed from the questionnaire and interview protocols as it could be perceived by the participants as a therapy question. I respected

the knowledge and experience of the facility managers and excluded these elements from the study.

4.3 Research Participants

4.3.1 Selecting Hospitals to Participate

I initially contacted Canadian hospitals that offered inpatient children and adolescent mental health services via email, with information that explained the intention and scope of the study, and I asked if a partnership was possible. Many hospitals elected not to participate in the study, for various reasons. One large children's hospital saw the value in my thesis work but they delayed committing to my study, which affected my research timeline. We were unable to continue the partnership. Another hospital's senior administration did not participate because they had reservations about the potential responses; they thought that the particular built environment for their inpatient child and adolescent mental health facility would not elicit positive reports.

A response received from a facility that chose not to participate illustrated another element that had to be considered while conducting this research. The unit supervisor indicated: "I do not feel that our children who are in crisis need to have additional concerns, such as being involved in research. This would divert them from their treatment goals" (email correspondence, August 2010). Rouge Valley Health System, in Toronto, Centenary Campus and Windsor Regional Hospital in Windsor Ontario, Maryvale Campus were the two hospitals that did ultimately participate in my research , saw the value in this study and became my research partners.

Rouge Valley Health System (RVHS) in Toronto initially agreed to participate in the program but failed to administer the questionnaire to the children and adolescents.

There was a telephone interview with the administrator followed by a site visit and staff interviews. RVHS provided a floor plan of their facility and I was able to observe their unit for a day and interview six staff members. After the site visit, there were repeated attempts to inquire about the status of the questionnaire. Despite my best efforts, RVHS did not answer any of the email inquiries. It is still unclear why RVHS declined to distribute the questionnaire and permit the inpatient interviews.

4.3.2 Selecting Inpatient and Staff Participants

Potential participants were selected from the pool of children and adolescents who had been admitted into the mental health units of Windsor Regional Hospital, Maryvale Campus (Maryvale) , and Rouge Valley Health System, Centenary Campus (RVHS), between September 2010 and December 2010. The supervising staff determined which children and adolescents would be suitable to participate in the study. Maryvale elected to issue the questionnaire as part of their routine paper work. The unit manager explained the purpose of the questionnaire and my research to the inpatients' parents on the second day of their stay. Once the parents had signed the consent forms and depending at the unit manager's discretion, the questionnaires were issued to the inpatients. The unit manager collected all consent forms and questionnaires, which were locked in a cabinet until they were collected. To maintain confidentiality, I did not know the inpatients' and parents' real names, only their chosen pseudonyms; the unit manager kept a record of the inpatients' real names and their parents' consent forms.

At RVHS, it was suggested that the school teacher on site would administer the questionnaires to the inpatients. Their rationale was that if a child was well enough to participate in school activities then they would be able to complete the questionnaire.

Unfortunately, since all correspondence with RVHS ceased after the initial site visit, it is unknown if this procedure was enacted.

The children who participated in the study were inpatients from Maryvale. The participant pool was comprised of the following: child questionnaires (two respondents): one male aged 8 and one male aged 12; adolescent questionnaires (14 respondents): three males aged 15, two females aged 13, five females aged 15, three females aged 14, and one female aged 16; adolescent interviews (4 respondents): two males aged 15, one female aged 13, and one female aged 16.

The hospital staff who participated in the interview process were from the RVHS and Maryvale. A detailed breakdown of respondents is as follows: Staff interviews (12 respondents): four female child and youth workers (Maryvale), two male child and youth workers Maryvale), three female registered nurses (RVHS), one female teacher (RVHS), and two child and youth workers (RVHS).

4.4 Data Gathering Procedure

4.4.1 Initial Interviews

Initial telephone interviews were conducted with unit managers or administrators to obtain information pertaining to their facilities, patients, treatment procedures, and the history of their program. The hospitals provided such useful information as where inpatients ate their meals, where they went to school, and where they visited family and friends. Maryvale, for one, did not permit patients' friends to visit, and family visits were only permitted in the building, not outside, due to issues of confidentiality.

The days selected for the interviews were determined by coordinating suitable travel time for me and administrator availability. Maryvale suggested visitation times that

coincided with the presence of the highest number of full-time regular staff, whose opinions were preferred to those of the part-time or casual staff, since their interaction with patients was more extensive and consistent. This was especially valuable in that the full-time regular staff had a broader range of experiences in dealing with the patient's interactions with their physical surroundings.

The full-time regular staff were interviewed during transitions between their regular duties or as time permitted. Interviews were on average 20 minutes in length and conducted in a room situated near the main corridor, which ensured the interviewee could quickly disengage should a situation arise with a patient.

The inpatient interview process was conducted at Maryvale in a selected room with close access, visual and verbal, to staff. Based on my prior experience with informally speaking to patients in hospitals and my understating of human behaviour, I set the room up to minimize additional stress and the participant's unease. The door to the room was left open and I positioned myself in the corner furthest away from the door so as not to appear threatening or in a dominating position (see Figure 1). The participant's chair was located in the centre of the room with approximately two feet on either side to facilitate ease of movement and encourage the participant to find a comfortable seating position.

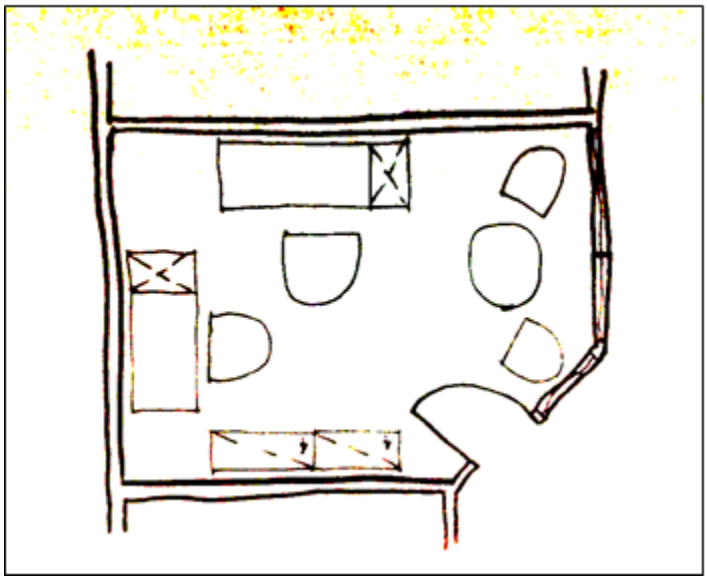

Figure 1. Floor plan of the interview room at Maryvale.

Before the child and adolescent interviews began, I introduced myself and thanked them for talking with me. I also let them know that at any time they were uncomfortable or did not want to continue with the questions, to let me know and we would stop immediately. I mentioned that a staff person was outside the room, should they want me to go and get them for any reason. I also informed the participants that there were no right or wrong answers and there were no expectations to answer in a specific way. It was important that the children and adolescents knew that they would not be evaluated or judged based on their answers. Participants were informed that the interview would take approximately ten minutes, depending upon the duration of the conversation. All interview participants were informed that the information gathered in these sessions would be used to assist in the design of future mental health units to make them more inviting and effective by addressing the needs of patients and staff.

4.4.2 Questionnaires

Selected children and adolescents were invited to participate in the study. After consent was obtained, the children were then issued their age-appropriate questionnaire. The questionnaires and consent forms were issued directly by the hospital to the participating children and adolescents within the 60-day research period. The questionnaires were administered and completed before I arrived to conduct the interviews. The staff determined the appropriate days to administer the questionnaires so as not to interfere with the patient's rehabilitation process. The completed questionnaires were collected by the supervising staff and secured until I was able to pick them up.

The participants involved in the interviews met previously identified criteria, namely, consent and availability on the day I visited the hospital. Prior to arriving at Maryvale, a review of the inpatients' questionnaires were conducted to identify any possible issues or concerns. One respondent's questionnaire indicated possible issues concerning her immediate surroundings. Early in the 60-day research period, the administrator of Maryvale issued a questionnaire to Mackenzie, a 15-year-old female participant. Her response to one of the questions was as follows: "The white room was how I see death. Whenever I'm sitting in my room, I think of that, and it bothers me." Upon review of her responses the hospital administrator concluded that the questionnaire was issued too early in her stay as she was still experiencing suicidal thoughts (A. M. A'loisio, personal conversation, October 22, 2010).

Following the completion of the interview process, participants' responses were screened for indications of negative issues of immediate well-being. The staff was also debriefed prior to my leaving the site. This was a precaution to alert the staff to any

potential dangerous or concerning responses. The gathered data was separated into child responses and adolescent responses. With these responses to the questionnaires and interviews compiled, I was then able to examine and correlate the findings.

Review of the information captured from this mixed methods study allowed themes and insights to unfold. Listening to the children and adolescents first hand ensured that their preferences were captured and documented.

CHAPTER 5:

FINDINGS

The social research I conducted with the two partnering hospitals, RVHS and Maryvale, consisted of multiple methods. I observed their respective inpatient child and adolescent mental health units, distributed questionnaires, and conducted interviews. I observed at RVHS the same day I conducted the staff interviews and observed Maryvale on three different occasions. I interviewed the administrators of each unit as we toured the units. On all occasions both facilities were fully functioning, and mental health treatment of the children and adolescents by the staff, teachers, therapists, doctors, and child and youth workers was underway.

My first visit to Maryvale consisted of a walkthrough of their former facility, which they were moving out of, and their new facility in which construction was nearing completion. The two hospitals that agreed to assist me with my research, I discovered during the observation periods and confirmed with the data I captured, were quite different in their building types. The staff maximized utilization of the space available to them in order to provide treatment. Given how dissimilar each unit was, by extension their operating functions and use of space were quite diverse.

RVHS, Centenary Campus, Toronto, operated its mental health unit out of a high-rise hospital. The hospital tower is situated in a densely populated neighbourhood on the outskirts of Toronto. Its layout is in keeping with a common hospital configuration, namely, a double loaded corridor. The term *double loaded* denotes that rooms are positioned on either side of the corridor.

By comparison, Windsor Regional hospital, Maryvale Campus, in Windsor Ontario, provide their services utilizing a campus style of individual buildings, which they designated as cottages.

Maryvale employs a residential model; a model which seeks to replicate a home. There are public, semiprivate, and private areas, in keeping with what most children would experience at home. (See Appendix A). The entry to the facility is into the public area of the cottage, the large living room. Down a corridor is a smaller living room, the dining room, kitchen, and an office. Further down the corridor you enter the semiprivate area, where the children's and adolescents' bedrooms are situated with the bathrooms. Each child has their own bedroom which is their own private space. This style of layout is familiar and also provides the ritual of physically moving from public to private areas of the cottage.

The RVHS unit had the distinctive character of a hospital and was medical in appearance and layout. (See Appendix A). The unit was not designed to contain children and adolescents with mental disorders. Each of the rooms was repurposed and the new application was a makeshift solution. The remnants of the previous occupants and equipment were still visible. For example, in a child and adolescent mental health unit there is no reason for medical gas and headwall units to be elements of the children's bedrooms that unfortunately are present. In addition, the layout of the bedrooms was not conducive to effortless observation. In an attempt to provide the level of safety that is required, corner dome mirrors were installed in the opposite corner to the door in order to provide a visual sightline of the room.

Also of note was the difference between the two hospitals' policies on suitable apparel. At RVHS, the patients were issued and required to wear hospital gowns. The hospital staff were clothed in outfits similar to that of nursing staff. At Maryvale, both the patients and staff wore their own clothes, which the staff called *street clothes.* I believe that the policy Maryvale employed for wearing ordinary clothes maintained the children's identity and also allowed for a sense of normalcy and familiarity.

Given that I was not allowed access to interview the children and adolescents at RVHS, capturing the experiences of the children at this particular facility was not possible. It is unfortunate that the empirical research from RVHS could not be recorded or examined, and could not contribute to my findings. I would like to have known if the children's opinions were similar to the staff's viewpoints, which I was able to document. I also would have liked the opportunity to compare and contrast the perceptions of the children from the two facilities. It would have been a useful exercise to compare the two different models of care —hospital-style and residential-style—to determine if the building type affected the patients' experiences.

Information for my study was obtained from the three predetermined groups: children, adolescents, and staff. Through content analysis, I categorized the findings into the main patterns which emerged from the material collected.

5.1 Significant Child Findings

The information from the children up to age 12 were reviewed and summarized from the two respondents, boys aged 8 and 12. I acknowledge that two children provide limited body of information, but I was unable to interview the children and nevertheless, I wanted to include the opinions communicated from their responses because I value their

input equally and found it worthy of review. Of the questions posed to the children on their age-appropriate questionnaires, the respondents agreed on six questions (see Appendix D). The common responses were as follows. The children would like to rearrange the things in their bedroom; their bed was not comfortable; the light into their room did not bother them at night; they would like their bedroom moved inside the living room with the TV; they would like to have all activities—eating, playing, relaxing, and school—in the same room; and, lastly, they felt safe in the cottage.

I believe that the environments which house children should be given greater importance and be familiar and unlike a typical hospital setting. Children benefit from maintaining control over their environment. Providing nooks, alcoves, and other small scale spaces children can relate to offers choice (Kopec, 2006, p. 158). A hospital-style environment that features harsh light, hard surfaces, unfamiliar sounds, and large-scale, unfamiliar rooms can be a hindrance and cause stress. Kopec (2006) states: “design should serve to minimize the institutional feel of healthcare environments and maximize feelings of hominess” (p. 223); and “the effects of stress seem to be more profound in children who are younger than ten years of age” (p. 145). My findings are supported by past research that suggests that children and adolescents experience less stress in environments that are familiar to them.

5.2 Significant Adolescent Findings

Outlined below are the significant findings obtained from the questionnaires and interviews completed by adolescents aged 13 to 19 (see Appendices E and G). The first interview question I posed to the Maryvale participants was to learn what issues they were dealing with. I wanted to glean how many of their stressors, if any, were derived

from the physical environment. The question was: “What stresses you out the most while being at the cottage?” I then asked them to list their concerns. Rockstar reported that what stressed her out the most were some of the facility’s policies. She felt she did not have any privacy, she couldn’t watch what she wanted on TV, and she couldn’t see her friends. JT also commented on the fact that he did not get to see his family. JT’s reporting supported Kopec’s (2006) claim that the number one source of stress in children was separation from family (p. 146). The responses I received from the other three adolescents to the first interview question were: not being able to see your family; not getting to watch movies that you like; not being able to watch what you want on TV; no privacy; not being able to smoke, even outside; and, lastly, having to do what the staff say.

This information assisted my understanding and offered insights into the range of issues the patients were dealing with. The issues identified were in addition to the problem for which they had been institutionalized. Each patient had many stressors to contend with. Utilizing content analysis and reviewing the adolescents’ disclosures, I uncovered four main themes: lack of privacy, the importance of one’s own bedroom, the importance of personal choice, and the desire for an exercise area. Below, I review and expand on each of the insights.

5.2.1 Lack of Privacy

The adolescents felt they did not have their desired level of privacy. In particular, they mentioned lack of privacy in their bedrooms and while using the bathroom and shower areas. For example, Little Miss Smiley stated that she “wants more privacy and not people standing outside the bathroom.”

At Maryvale, the patients were monitored continually. During the day their whereabouts were known at all times and during the night they were checked hourly to ensure they were in bed and safe. While the patients are in the bathroom and shower area the staff remained in the corridor directly outside, also to ensure patient safety.

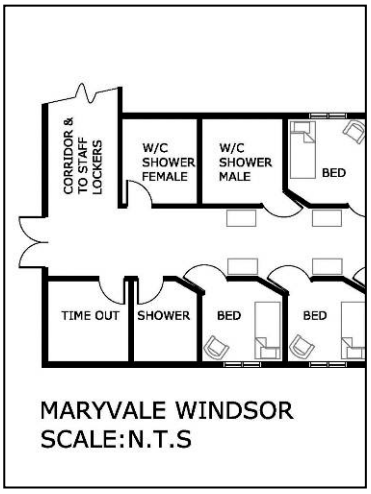

Figure 2. Maryvale floor plan illustrating the shower area and the adjacent corridor where staff wait for the patients to return. (See Appendix A for full floor plan).

Staff participant P1 from Maryvale felt uneasy and was concerned that the patients' dignity could not be maintained in the bathroom and shower areas. Standing in the corridor outside of the bathroom, the staff could overhear the patients' bodily functions. She also indicated that while the patients took a shower their feet had to remain visible to the staff for monitoring purposes. I observed that the door to the shower stall was not large enough and for a small child or short adolescents more than their feet would be visible. This unsuitable door size and dimension would certainly be exasperating should one have to bend over to retrieve an item that may have fallen on the shower floor.

Given the level of monitoring that is required to track the progress of patients' health, there are design approaches that could accommodate the interests of patients and staff —to provide the requested dignity. Determining a suitable dimension for the shower door is one solution, so as to offer a shower stall for children and shorter adolescents that would ensure sightlines to their feet but not allow as much visibility of their legs. Bathrooms with softer floor materials such as non-slip sheet flooring, as opposed to ceramics, would minimize sound transfer and reduce reverberation. The physical size of the bathroom and shower area could be reduced which would also improve acoustics.

JT said that he didn't like the "watching, and I feel uncomfortable showering and going to the bathroom sometimes." Also, Rockstar did not feel comfortable while in the shower "because someone else is out there."

Figure 3. Toilet stall door partition.

Figure 4. View into toilet stall.

Maryvale has taken precautionary measures to ensure patient safety in the toilet stalls as well. As can be seen in Figure 3, a collapsible coat hook has been installed on the

back of the bathroom door. This hook collapses when it is extensively loaded and prevents patients from hanging themselves in an isolated location. Figure 4 shows a unique door detail which ensures that there no sightline into the stall and offers safety: there is no individual stall lock which eliminates a potential hanging mechanism. Instead, the design team created a detail ensuring privacy: bristles occupy the vertical space between the door and the partition. The combination of the bristles and a door stop create resistance when pressure is applied. The whole assembly acts as a door closure without the need of a traditional lock. Maryvale will have to monitor the cleaning process to minimize bacterial transfer that might arise with this detail.

As part of their morning routine, the adolescents sat on the floor in the corridor to finish their grooming. Leda said she would prefer another alternative, and suggested "a room where girls can get ready, because I don't like having to sit in the hall to do my hair and makeup." A makeup area could be added in the corridor, with a small counter and chairs which would prevent the demeaning routine of sitting on the floor. With the input from the adolescents regarding their experiences, design solutions could be developed to rectify undignified issues without compromising patient monitoring.

5.2.2 The Significance of One's Own Bedroom

The adolescents placed high importance on their bedrooms while in treatment. Kopec (2006) argues:

> Although older adolescents seek affiliation with their peers, they often seek solitary places to relax and gain perspective. . . . Bedrooms are personal territories. Children need and desire their own territories not only for self-expression and identification, but also as private places for contemplation and relaxation. (pp. 147–148)

JT said that his bedroom allowed him "time to think." In the many health care projects I have been involved with, I have noted that patient bedrooms are treated with the same

consideration as any other room in the facility. My research has revealed that patients' bedrooms are not just another room in the facility. The participants placed extreme importance on this room as their space. My study reveals that patients who liked their bedrooms also believed that the facility was helping them get better. Design teams and administrators need to respond to this need and begin to place a high level of importance and priority on patients' bedrooms.

The first question asked on the adolescent questionnaire was if the individuals liked their bedroom. Two respondents indicated they liked their bedroom, but the overwhelming majority did not: 12 of the 14 adolescents recorded their opinions between Strongly Disagree and Neutral on the Likert scale. Blossom indicated that she would like to be "able to move things around" and also "I really never get sunlight." Special 1 suggested that "the bedrooms remind me of jail cells. They're very empty and bland." Other elements in her bedroom such as posters and more personal items were also lacking and considered desirable. Developmentally, adolescents turn to their own special objects for a sense of comfort and support. Their personal belongings affirm their personality and support their sense of place in the world and, quite importantly, offer a method of stress reduction (Kopec, 2006, p. 160).

Figure 5—Maryvale patient bedroom view from bedroom door of headwall.

Figure 6—Maryvale patient bedroom view from headwall of footwall.

The adolescent respondents did not like the colour of their bedrooms. Of a total of 13 respondents' opinions, three Disagreed and 10 Strongly Disagreed that they liked the colour of their bedroom. Figures 5 and 6 illustrate the neutral colours of the bedrooms at Maryvale.

It was reported 20 times throughout the research process that they did not like the colour of the bedrooms' walls. Five of the respondents indicated that they would prefer their bedrooms to be painted a specific colour. Their colour preferences ranged from black, dark green, bright green, to rainbow. Little Miss Smiley suggested that there could be different colours for boys and girls and that they could get to choose a bedroom based on the colour. Her suggestion was very astute. Painting the bedrooms a variety of suitable colours is an inexpensive and simple strategy that would allow for patient choice and offer an environment more suited to this demographic. Little Miss Smiley noted that, to her, the "white walls, feel like a psych ward and there limited items in the rooms to preoccupy yourself." Coloured bedroom walls would provide variety and an inexpensive focal point.

The adolescents placed significant importance on their own personal space—their bedrooms. The bedrooms were a small-scale space within a larger environment and were personal and private, spaces which others did not enter. The bedrooms offered separation, privacy when appropriate, and a refuge. Kritter indicated, “I find that being in my bedroom gives me a break from everything else around me.” Leda reported that her bedroom was important: “Considering we are in our bedrooms quite a bit it gave me a lot of time to think about stuff and I personally liked the alone time to think about the bad things and how I can help fix them.”

When the adolescents were asked what they liked least about their bedrooms, a variety of answers were provided. The majority of the respondents, 12 of 15, indicated that they did not like the furniture and the paint. Marion Elizabeth replied that in the rooms “There’s only a bed and a chair.” Two of the 15 participants indicated that they least liked the physical size and configuration. Victoria mentioned that she thought the bedroom “is too tall.” James wanted the bedrooms to be “a bit bigger.” One patient responded that the amount of privacy was what they liked least about their bedroom. The open-ended question was constructed to allow the patients to offer their own answers as opposed to selecting from a predetermined list. This answer confirmed the importance of the patients’ bedrooms to their healing process.

Question 9 in the adolescent questionnaire provided the participants an opportunity to identify what else they wish they could do in their room. Both Mackenzie and Leda wanted to “keep more of my belongings in my room” and further stated “I wish I could bring more stuff from home. (Posters, pillows, etc.) Though I can bring some, they don’t want too many, because I can’t get too comfortable!” Also Little Miss Smiley

mentioned that she thinks the bedrooms needed “more colour or photos, more space for the teens to be around in there. There should be added a mirror or drawers to stock things.”

5.2.3 The Importance of Personal Choice

The importance of personal choice was of key importance to the adolescents. A mental health facility is not a residential bedroom and safety is a concern, but allowing patients to have personal and familiar items with them can add comfort and familiarity. Adolescents are concerned about the image they portray to the world. Choice in clothing, accessories, and electronics carries significant meaning. “Objects have tremendous psychological importance in that they help adolescents relate to the social world and support how they wish to be personalized. Therefore, when designing spaces for adolescents, consider how to incorporate their special objects” (Kopec, 2006, p. 159). My research findings support Kopec’s (2006) claim; I repeatedly heard the value the participants placed on their own personal items. In addition to their objects as extensions of their personality, choice of objects also serves as a measure of control in an environment and experience where their control is relinquished.

The patients indicated that they would like to bring more of their own personal items from home, decide which bedroom to take, rearrange the things in their bedroom, and have a choice in what they watched on TV. While being at Maryvale, one element that added to JT’s stress level was that “you don’t get to watch the movies that you like.” JT would have preferred to choose the movies he could watch. Although movie selection was a staff decision, designing and incorporating opportunities for personalization could

be incorporated into the design solution. In addition, offering personalization is a method to exercise adolescents' decision-making skills.

5.2.4 Desire for an Exercise Area

Four of the 14 adolescents mentioned they would like an exercise area. I did not mention an exercise area yet it was identified as a function that would enhance their recovery. Two patients emphatically stressed the importance of an exercise space and communicated what a key role this stress relief method was in their personal wellness plan.

Staff member and Participant P7 asserted that adding an exercise space would be a significant contribution and benefit for the children. Little Miss Smiley offered that it would "help to de-stress, help so people won't hurt themselves and it would help get stress out for some kids, calm them down and relax, think about working out and having fun." When JT was asked if anything in the cottage added to his stress level, he responded that "when you can't express you. I lift weights to get the stress out or punch a bag, that's what I do to get stress out and I can't do that here." JT has already adopted a healthy method to alleviate stress and while in an inpatient setting, the tools were not offered to encourage his outlet for stress relief.

Neither RVHS nor Maryvale had incorporated an exercise area. Adding or modifying an existing room to accommodate suitable exercise equipment is straightforward. Should the square footage not be available for a dedicated exercise room or area, a corridor could be incorporated and allow for exercise stations. Various exercise stations, such as squats, jumping jacks, and stretching components, could be situated down the corridor.

Eleven of fourteen adolescents responded that they felt comfortable in the cottage, demonstrating that the physical environment was not adding additional stresses to the patients at Maryvale. Victoria reported that “the staff here has managed to get me to calm down in better ways and I feel extremely comfortable living here.” Victoria’s testimony establishes that in addition to the physical environment, the staff and inpatient program provided the necessary treatment.

5.3 Significant Staff findings

Six staff members from each of the two partnering hospitals were interviewed, for a total of 12 staff interviews. After a discourse analysis of the 17 interview questions, four underlying themes presented themselves: patient safety, sightlines, acoustics, and travel distances.

As previously stated, the two facilitates operated out of vastly different physical environments. The inpatient child and adolescent mental health unit at RVHS occupied the shaded area in the floor plan (see Appendix A). The layout of the unit is a traditional double loaded corridor with a central core. A hospital floor plan with a central core signifies that the service rooms such as clean linen, soiled linen and medication rooms are located in the centre core. Given that the Child and Adolescent unit occupies one side of the floor the opportunity for an efficient corridor that runs around the floor plate in a ring formation is lost. In addition, the placement of the nursing station at the entrance of the unit results in a long corridor with the patient bedrooms located quite a distance away from the central staff space. Sightlines and acoustics from the nursing station into the patient areas are not ideal and are a hindrance. Should a staff member be at the nursing station, there is no way to see or hear the patients, which reduces patient safety.

Staff Participant P7 described her experiences with the placement of the nursing station in relation to the patient bedrooms. She felt the excessive travel distance limited their accessibility to the patients. The “kids don’t relate and have a high level of anxiety as they don’t feel secure with the other patients and the long corridor so far away from the nursing station.” Also of note were the two rooms where the patients spent the majority of their time: the dining and activity room, and the meeting and TV room. The spaces were crowded with hospital-styled furniture and the aesthetics of the rooms were in keeping with an institutional model.

The Maryvale campus offered multiple dwellings, called cottages. As can be seen from the floor plan (see Appendix A), the common areas are open plan and have clear sightlines. The staff reported that acoustics are an issue due to the high, vaulted ceilings and so many seating areas close together. Staff Participant P4 said: “that clinically we have to sit close so we can hear everything the kids are saying [even to each other] and it is difficult to hear.”

The fourth question I asked the staff was whether they felt the patients were comfortable in their respective facilities. Maryvale staff reported that they felt all of their patients were very comfortable. RVHS’s collective response was that only some of the patients were comfortable. Staff Participant P11from RVHS suggested that she does not feel the built environment of their unit is suitable for mental health treatment. Specifically, “the people and the program are good, the environment doesn’t contribute.” Staff Participant P4 said that the physical environment should tell you and assure you that you are getting help here. Her opinion was that the RVHS inpatient space was not communicating that important message.

Figures 7 to12 illustrate the furniture style and room décor of the common areas of each facility. It is evident that the lounge spaces at RVHS are converted patient bedrooms (see Figures 7 to 9). The patients' over-bed light and medical gases of the headwall unit are still evident even with the staff attempts to decorate and camouflage them. The colour, fabric and style of furniture at RVHS do not resemble that of a typical child and adolescent space. By contrast, the photographs taken at Maryvale illustrate that the colour, style, scale and fabric selections are residential in character and appropriately scaled to suit children and adolescents. The bare walls indicate that they recently moved into the space (see Figures 10 to 12).

Figure 7—RVHS Activity Room

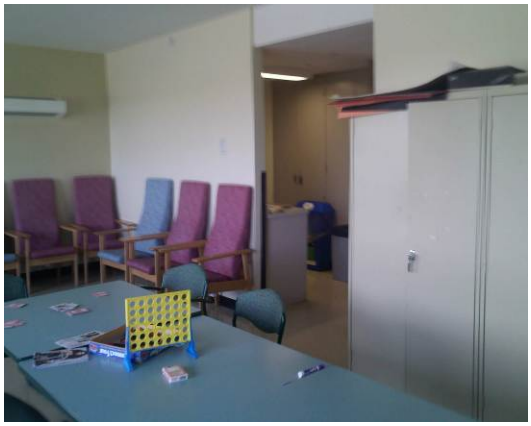

Figure 8–RVHS Activity Room

Figure 9—RVHS TV Room

Figure 10—Maryvale TV Area

Figure 11—Maryvale Activity Area

Figure 12 —Maryvale Activity Area

During the staff interviews, I inquired about whether the staff felt that the patient bedrooms allowed them to do their job effectively. Four staff at RVHS reported that they felt the bedrooms hindered their jobs, while six of the Maryvale staff felt the bedrooms allowed them to do their jobs effectively. This questions solicited practical feedback that with careful planning and detailing could be accommodated.

During the night, RVHS staff perform hourly checks of the patient to ensure they were breathing and safe. Staff reported that the patient bedroom doors were heavy, squeaked, and did not a have large enough glazed element for patient monitoring and bed

checks. At RVHS, the door style and location permit this check from being conducted quietly or without disturbing the patients.

Figure 13 shows the view at RVHS from the corridor into the bedroom. It is apparent that the head of the bed cannot be seen and therefore entrance into the room is required which could potentially wake the patients. Corner mirrors had been installed at the ceiling height to allow the staff an increased view of the room. Staff reported that five of these concave mirrors had been knocked down by agitated patients as of the date of the interview.

Figure 13—RVHS, view from corridor into patient bedroom

Maryvale specifically detailed and constructed the partition between the corridor and patient bedroom that houses the door on an angle, to facilitate clear sightlines of the bedroom and the head of the bed. Another design feature that Maryvale incorporated for the patient bedroom doors was a Velcro privacy panel, which could be closed when full privacy for the patient was permitted and be turned down for when partial observation from the corridor is required. See Figures 14 and 15.

Figure 14—Maryvale, patient bedroom door illustrating privacy panel in closed position

Figure 15—Maryvale, patient bedroom door illustrating privacy panel in observing position

I interviewed the staff to obtain their opinions and to inquire if they felt the patients' bedrooms were restorative for the patients. I provided a definition of *restorative:* giving new strength and something that restores, to ensure the staff all considered the same definition in their answers. All six staff at Maryvale stated that the bedrooms were restorative. Four of the RVHS staff felt the bedrooms were not restorative for the patients. Staff Participant P4 suggested a solution: "have the kids decorate their rooms, add pictures, to help them feel more comfortable and at home in their rooms." This suggestion confirms the children's and adolescents' perceptions that their bedrooms were very important and also provide an opportunity to express themselves. Figures 16 to 22 illustrate the current sparseness of the bedrooms at both RVHS and Maryvale.

The senior management and administration of RVHS moved the child and adolescent unit onto a medical surgical floor. The medical gases, over-bed lights, and exposed electrical plates, although not in use, were visible. Unfortunately the unwanted lockers and washrooms from the previous occupants could not be fully removed. For patient safety, the hazards of the bedroom had been modified as best as possible. Staff

Participant P7 said, during a tour of the unit, that an adolescent had attempted to hang himself from an unlocked ceiling access panel. She added that since that particular episode, all the ceiling access panels had been locked. I noted during my observation that many sharp objects and opportunities for self-harm were unfortunately still present. Although the hooks in the lockers were removed, the doors themselves were operable and the sharp corners were apparent.

Figure 16—RVHS patient bedroom view of headwall

Figure 17—RVHS patient bedroom view of footwall

Figure 18—RVHS patient bedroom view to corridor from the window wall.

Figure 19—Maryvale patient bedroom view from bedroom door of headwall

Figure 20—Maryvale patient bedroom view from headwall of footwall

Figure 21— RVHS patient washroom

Figure 22— RVHS lockers are a safety concern

In Staff Participant P7's view of their unit as a whole, "During the most terrifying junction of their life they are put into an environment not conducive to their treatment and recovery."

I wanted to hear from the staff about their experiences while working on the unit. I specifically asked them if the staff spaces supported and enabled them to do their best work. Five of the six staff from Maryvale agreed and felt that the staff spaces supported and enabled them to do their best work. The opposite was reported at RVHS. Four staff at RVHS did not feel that the staff spaces enabled them to do their best work. The staff at RVHS indicated that they desired better break areas and that the nursing station was undersized and too far away from the activity of the unit. Staff Participant P12 elaborated that the distance down the corridor was not helpful and recounted that "the worst are the depressed kids, you have no visual on them and you have to go find them."

Figure 23—Maryvale, new building, patient bedroom corridor

The wider corridor of Maryvale's new unit allowed staff to easily escort a patient. When the staff escort patients (often three abreast) to the consequence room, the new, wider corridor ensured the process was without incident or worry. In the former cottage with its narrow corridors (Figure 24), patients could trip or push a staff member into a

door frame or wall. Staff Participant P3 shared his experience. “Wider corridors are much better for escorting a kid three wide. Less tripping and injuries for us.”

Figure 24—Maryvale, former building, patient bedroom corridor

The Staff at RVHS recognized that providing a less institutional environment helped the patients feel more comfortable. Staff Participant P8 said “I did some painting in the corridor and am now adding sayings and leaves to make it homey.”

Figure 25—RVHS, patient bedroom corridor, view from nursing station.

5.4 Meeting Spaces

I noticed that group meeting spaces were few and inappropriately placed. Spaces for family meetings and therapies are an important component of the treatment process. RVHS staff reported that there were only two spaces for groups to meet or visit. One of the rooms is a patient common room. It is hospital policy that families cannot visit in the patient bedrooms. This poses an issue when there are multiple families that require the visiting rooms at the same time. Also adding to the congestion is another hospital policy which states that to maintain patient confidentiality and privacy the families cannot leave the unit to visit. Family visits and meetings have to occur where staff can observe and intervene if required. To enable family visits to occur efficiently, from a staffing perspective, it is ideal if the visits can occur in a room that is adjacent other spaces where the remainder of the patients and staff would be. The design team for Maryvale's new building placed two visiting room off the administration corridor and not directly adjacent the patient common areas. This does not allow the staff to facilitate two functions at the same time and therefore minimizes efficiency.

Figure 26—Maryvale visiting room

Figure 27—Maryvale visiting room

The children and adolescents emphasized the importance of their privacy, the significance of their bedrooms, the importance of personal choice, and the desire for exercise spaces. The staff communicated that patient safety, sightlines, acoustics, and travel distances were crucial to their job function.

5.5 Considerations and Recommendations for Inpatient Child and Adolescent Mental Health Facilities

I have summarized my findings into considerations for inpatient child and adolescent mental health facilities. Each of the key principles—involvement of the stakeholders, residential approach, patient safety, privacy, significance of the bedrooms, choice, and an exercise area—will be expanded upon below. Of note is that each of these considerations and recommendations ensure that individuals are not functionally interchangeable. Each child and adolescent admitted into care is a person who is unique with their own developmental stages, and preferences. Each patient is an individual who must be respected and their dignity maintained. (Foucault, 1977, p. 146).

5.5.1 Involve the Stakeholders

Children and adolescents are the key stakeholders. The design process should be set up to include the opinions and experiences of the children and adolescents themselves. If current inpatients cannot be accessed or are not able to contribute, a youth advisory committee should be formed and the participation of children and adolescents who have been inpatients in the past be requested. The children and adolescents have a voice and their experiences provide a valuable contribution. Those children that have been inpatients know first-hand what it is like to spend time in a facility. A visitor who spends

an hour or two visiting a facility cannot relate to living in such an environment, sleeping in a new bed and, becoming familiar to new sounds and surroundings (Sontag, 2003). In addition to the physical environs, the inpatient children and adolescents are acclimatizing to new rules and are learning new skills.

5.5.2 Residential Approach

To reflect residential living the physical layout of an inpatient child and adolescent unit should be planned with categories of space in mind. Classifications of space such as public, semiprivate, and private allow activities to be performed in appropriately allocated areas. Rooms that are residential in scale with natural light, familiar finishes and furniture styles will reduce patient stress.

5.5.3 Patient Safety

Safety of the patients is paramount. The families place the care and well-being of their children into the hands of the staff for the duration of their stay and treatment. Should a child be at risk for self-harm or potentially inflict harm on others, close and continual observation is required. Opportunities for patients to tie devices to assist in hanging themselves or sharp corners to injure themselves should not be present in the environment. Furniture should be weighted so that it cannot be easily thrown and all fasteners should be concealed to limit injury. Handrails should be provided in the corridors where applicable to assist mobility for patients who are dizzy from their medications.

Patient bedroom layout should allow for a direct sightline from the door to the bed and specifically the head of the bed. This key planning element ensures the patients are not awakened during the night and staff can easily perform their bed checks.

5.5.4 Privacy

Ensure that children's and adolescents' dignity and privacy can be maintained. While in care the patients do require observation; however, this can be successfully accomplished with proper placement of partitions and furniture. Seating areas for staff that are located adjacent to the children without them having to hover allow for passive observation. In private rooms such as the bath and shower rooms, appropriate materials can be specified to minimize sound transfer and maintain children's dignity. The physical size of showers and washrooms can be designed to minimize the echoing that occur in large room with hard surfaces.

5.5.5 Significance of the Patient's Bedrooms

The bedrooms hold significance to the children and adolescents. The bedrooms are the children's and adolescents for the time they are in care. The bedrooms should be treated with respect and importance as they are pivotal to the patient's well-being. The bedroom is a personal and private space that houses their familiar objects which in turn provides stress relief.

5.5.6 Choice

The colour of their bedrooms is important to the children and adolescents. Allowing children and adolescents to select a bedroom based on the wall colour or room location would create a sense control. Where possible, allow for patients to have personal belongings with them and to personalize their space. Have the patients select from an offering of comforters, pillowcases, and sheets in colours or patterns they prefer. Provide a list of suitable personal items that the patients can bring with them and display in their bedrooms. Examples could include personal photographs and posters that can be hung

with magnets to whiteboards. Whiteboards also provide an opportunity for personalization and self-expression. Incorporating a tack board or whiteboard to allow personalization and display of their favourite pictures and images is one method to foster personal control. Patients may have a preference for room location. Should two rooms be available the patient could select which room to occupy based on location.

Opportunities for personal choice can be provided in the public spaces as well. The children and adolescents may have a preference of where they prefer to sit for activities or relaxing. Careful room layouts will ensure that patients are still supervised.

5.5.7 Exercise Area

Provide an area where children and adolescents as appropriate can exercise and de-stress in a healthy manner. Children with eating and obsessive disorders can be taught how to exercise safely.

Provide an outlet for stress and to encourage the healthy management of prescribed medications. If a room or portion of a room cannot be allocated for an exercise area, consider implementing a system in the corridor which could be set up to allow for circuit style exercise and stretching.

Developing considerations and recommendations allows designers, facilitators, and staff to understand the preferences captured from the children and adolescents. The recommendations can be implemented into existing and future inpatient child and adolescent mental health units either in their entirety or as appropriate.

CHAPTER 6:

CONCLUSION

This study set out to capture the experiences of the children, adolescents, and staff of two inpatient child and adolescent mental health facilities in Ontario. Working from a phenomenological view point, my prime research objective was to listen to the stories and experiences of the children and adolescents in care in order to capture their preferences in relation to the built environment. I wanted to determine if the existing inpatient mental health environments were restorative and how the built environment could be better designed to support the myriad of patients' needs. I found the young patients reported a lack of privacy, the significance of their bedroom, the importance of personal choice, and the desire for an exercise area were all important to them.

A review of the literature suggested that a residential environment best suits the children's developmental needs and preferences. My findings confirmed when space is scaled and furnished appropriately, and is familiar the inpatients are able to concentrate on their recovery without being unnecessarily stressed by their new environment. The implementation of these collective findings can improve the experiences of the children and adolescents being admitted to care.

The staff findings outlined the importance of patient safety, sightlines, acoustics, and travel distances between spaces. Designing spaces that ensure the staff can perform their jobs with ease and without injury not only benefits the staff but the patients as well.

The research was uniquely situated to listen to the key stakeholders. Many traditional design projects lack the time or funds to facilitate this type of research. My

results support Kopec's developmental research (2006) and indicate that children and adolescents in health care environments would prefer to be provided with choice and be able to personalize their space.

The children admitted into care are not functionally interchangeable and are unique individuals with distinct penchants and requirements (Foucault, 1965). The children and adolescents I interviewed stated they would rather have more of their personal items with them and on display, providing for such an opportunity would ensure each patient can distinctly personalize their space and express themselves. The result would be an ever changing tapestry that illustrates the diverse group of individuals admitted at any one time. Another benefit of this insight allows for the children to be comforted with their personal keepsakes, reducing stress levels, which in turn allows the patients to concentrate on their recovery.

Information was collected from two different facilities. The issues that emerged were consistent and could therefore be relevant and applicable to other inpatient child and adolescent mental health facilities. The application of the considerations and recommendations outlined in this study will ensure that children and adolescents in care recover in an environment that supports their developmental stages, values them as individuals and allows for personal expression (Foucault, 1965).

It is essential that the topic of child and adolescent mental health remain a priority and at the forefront of the health issues in the public eye. Until mental health is viewed as a disease without a negative connotation, those affected will be treated with lack of respect and ignorance (Guyatt, 2004). The health of the nation's youth together with the advancement of this subject demand greater importance. The status quo is no longer an

option. It is because of the status quo that the present day attitudes are what they are. Financial resources must be prioritized to continue the progress of children and adolescents mental health facilities.

There were a range of limitations to this study. One constraint was the distance of the hospitals to my home, thus, restricting access to the patients and staff. Travel to the facilities affected my access to the children and adolescents as the interviews were planned around hospital administration availability and my travel.

The selection of my research participants, classified as vulnerable subjects, was determined by the primary care staff. The process to organize the questionnaires and interviews also fell into their domain. The need to obtain parental consent and the subsequent increase in administrative duties may have been a preventive factor in other hospitals participation. RVHS's involvement in my study inexplicably waned and therefore, I was unable to capture the experiences of those inpatients.

Inpatient child and adolescent mental health facilities in Ontario could benefit from a funded research study conducted across the Province to allow for additional participants perspectives. Visits to various inpatient child and adolescents mental health units in the Province would contribute and add to the knowledge base. A reading of the architecture and design details from the built environment could provide greater information to inform the design and refurbishment of child and adolescent mental health facilities.

Future research may consist of a study with research partners in closer proximity. This would allow for multiple trips and opportunities to conduct interviews, make observations and gather more information. My data collecting phase was three months,

future research should consider six months if possible given the small number of patients available at any one time.

Planning for additional members to assist with data analysis would also strengthen the work. Team members such as: child psychologists and mental health practitioners could assist in understanding the specific characteristics and physical requirements for each of the mental disorders. There may be approaches for specific disorders that should be considered, designed, and incorporated into the built environment to benefit all the users.

A future study could survey the families. Family centred care is a growing trend and recognizes the contribution families make to a patients' recovery. This topic would benefit from further exploration to determine if the needs of families are provided for while their children are admitted to care.

My study provides a portal into a complex and important area of study. Inpatient child and adolescent mental health units need attention and review to allow for better, more informed design solutions. I have conviction that these findings offer insights into the children and adolescents experiences and preferences. Their voices are essential. Listening to their stories provided the most significant knowledge gained from this experience.

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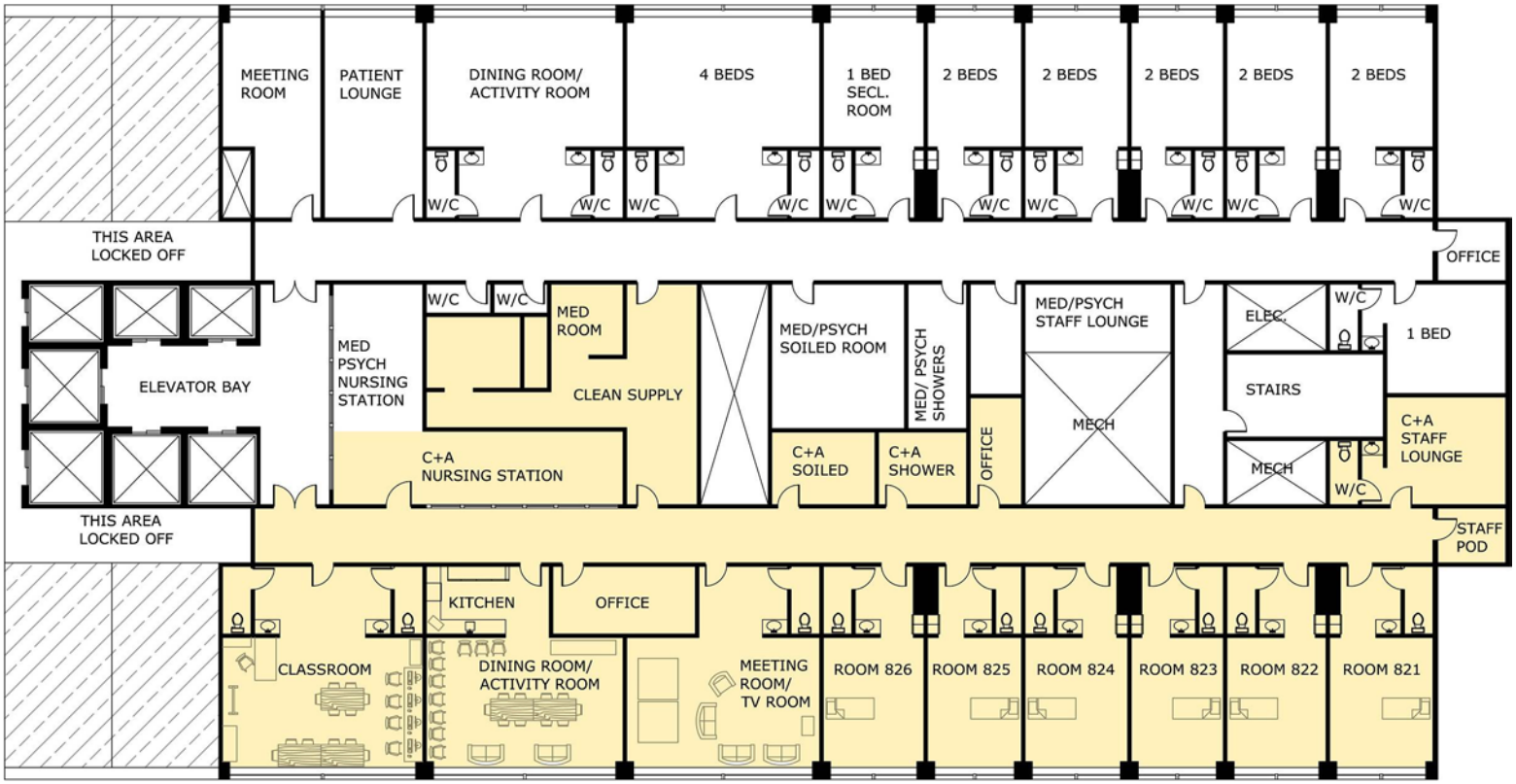
APPENDICES

Appendix A

Facility Layouts



RVHS - TORONTO
SCALE: N.T.S.

Appendix B

Ethics Approval Certificate

Ethics Approval Certificate is held with

the University of Manitoba

Faculty of Graduate Studies

Appendix C

Guidelines for Informed Consent

UNIVERSITY OF MANITOBA

Research Project Title: The environment as a restorative tool for inpatient children and adolescents with mental disorder.

Researcher(s): Dana Tapak

Sponsor (if applicable): Department of Interior Design, University of Manitoba

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

1. PURPOSE OF THE STUDY:

The purpose of the study is to capture the participants opinions, thoughts and experiences related to their stay in the hospital within the mental health department. Questions will be asked specifically related to their bedrooms and the unit in order to attain first-hand information associated to the interior environment.

The information gained will then go on to inform the planning of inpatient child and adolescent mental health departments.

2. PARTICIPANT INVOLVEMENT:

The study participants will participate in a one-time survey as part of the discharge process from the hospital. This survey which will be facilitated by a staff member will take 30 minutes at a maximum.

For the study participants identified by hospital staff who are able to take part in an interview, the interview will be one time by the principal researcher and the length of time will not exceed one hour.

For staff participating in the staff interview, it will be a one-time interview by the principal researcher and the length of time will not exceed one hour.

3. **RISKS AND BENEFITS**:

No risks are anticipated. Should the study participant at any time become uncomfortable or distressed, the participant has the right to stop and either the survey or interview will end immediately. Should the hospital staff administering the survey or the principal researcher conducting the interview see that at participant is becoming uncomfortable or distressed the facilitator will ask the participant if he/she would like to stop immediately. If the participants' indicate they would like to stop, the research will end immediately. The interviews will take place in close proximity to hospital staff should additional assistance be required.

The participants will benefit from this study which invites the subjects to provide their experiences which will in turn inform further planning of mental health departments specific to children and adolescents. The hospitals will benefit from partnering with the researcher and University of Manitoba.

4. RECORDING DEVICES:

No recording devices will be used.

5. **CONFIDENTIALITY:**

Any information provided will remain entirely confidential and anonymous. Materials will be stored in a locked cabinet in a secured building. I understand that records and data retrieved from this study is for research purposes. Research materials will be destroyed at the end of the study. I understand that any information derived from this research project that personally identifies me will not be voluntarily released or disclosed by the researcher without my separate consent, expect as specifically required by law.

6. FEEDBACK:

Should a study participant request the results of this study, please include your contact information and every effort will be made to provide the findings. Each participating hospital will also receive the results of this study.

Contact information:	

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Dana Tapak, BID., 613.261.6456

Dr. Susan Close, 204.474.7183

Department of Interior Design, University of Manitoba

This research has been approved by the Joint Faculty Research and ethics board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the

Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

_____

Participant's Name and/or Signature Date

_____

Legal Guardian or Parent **Date** **Legal Relationship**

_____

Researcher and/or Delegate's Signature Date

Appendix D

Survey for Children up to Age 12

UNIVERSITY OF MANITOBA

Do you have a nickname or a middle name? I will use this name to keep track of your answers and to keep your privacy	Date:
Your age:	Length of stay to date [days]:
Are you a boy or a girl:	Cottage #:
	Bedroom number: *Shaded area to be completed by staff*

Thank you for helping me by answering these questions. I want to learn about your experiences here at the Cottage and will use your information to make mental health units for children and teens that much better.

Please circle the answer that best tells me how you feel about the question.

These questions are about your bedroom here at the Cottage.

1. **I like my bedroom here . . .**

   a. Yes

   b. No

2. **I like where the things in my bedroom are . . .**

a. Yes

b. No

3. **I can be by myself if I want to in my room . . .**

a. Yes

b. No

4. **Do you think your bedroom is helping you to get better?**

a. Yes

b. No

5. **Do you like the colour of your bedroom here?**

a. Yes

b. No

6. **I wish I could rearrange the things in my bedroom.**

a. Yes

b. No

7. **If you could move your bedroom anywhere in the cottage, where would you like it to be?**
_____
_____

8. **What do you like best about your bedroom?**

_____
_____

9. **What do you like least about your bedroom?**

_____
_____

10. **Something else I wish I could do in my room would be . . .**
_____
_____

11. **I like what I see from my bedroom window.**

    a. Yes

    b. No

12. **The light that comes into my bedroom from the hallway keeps me awake at night.**

    a. Yes

    b. No

13. **The light that comes into my bedroom from outside keeps me awake at night.**

    a. Yes

    b. No

14. **The other kids wake me up at night.**

    a. Yes

    b. No

15. **Staff noises wake me up at night.**

    a. Yes

    b. No

16. **My bed is comfortable.**

    a. Yes

    b. No

17. **I like the furniture in my bedroom.**

    a. Yes

    b. No

18. **I feel safe in my bedroom.**

a. Yes

b. No

The next questions are about the cottage.

19. **Is there a room you would like to add to the cottage? What would it be?**

_____
_____

20. **Is there a room that you would like to take away from the cottage? What would it be?**

_____
_____

21. **The cottage is helping me get better.**

a. Yes

b. No

22. **I like the area where I can visit with my family.**

a. Yes

b. No

23. **I would like to have one room for all activities. [eating/ playing/relaxing/ school]**

a. Yes

b. No

24. **I would like to have separate rooms for all activities. [eating/ playing/relaxing/ school]**

a. Yes

b. No

25. **I made friends here.**

a. Yes

b. No

26. **I feel comfortable in the cottage.**

a. Yes

b. No

27. **I feel safe in the cottage.**

Yes

No

28. **Anything else you want to tell me about your bedroom or the cottage?**

_____
_____
_____
_____
_____

This is the end of the questions and the survey. Thank you for your help.

Appendix E

Survey for Adolescents Aged 13 to 19

UNIVERSITY OF MANITOBA

Do you have a nickname or a middle name? I will use this name to keep track of your answers and to keep your privacy	Date:
Age:	Length of stay to date [days]:
Gender:	Cottage:
	Bedroom number: *Shaded area to be completed by staff*

Thank you for helping me by answering these questions. I want to learn about your experiences here in the Cottage and will use your information to make mental health units for children and teens that much better.

Please circle the answer that best tells describes how you feel about the question. Using a scale of 1 being strongly disagrees and 5 strongly agree.

These questions are about your bedroom here at the Cottage.

1. **I like my bedroom here.**

Strongly disagree				Strongly agree
1	2	3	4	5

2. **I like where the things in my bedroom are placed.**

Strongly disagree				Strongly agree
1	2	3	4	5

3. **I like the amount of privacy I have in my room.**

Strongly disagree				Strongly agree
1	2	3	4	5

4. **I wish I could rearrange the things in my bedroom.**

Strongly disagree				Strongly agree
1	2	3	4	5

5. **Do you like the colour of the walls in your bedroom?**

Strongly disagree				Strongly agree
1	2	3	4	5

6. **If you could move the location of your bedroom anywhere in the cottage, where would you like it to be moved?**

_____
_____

7. **Do you think your bedroom helps you get better?**

Strongly disagree				Strongly agree
1	2	3	4	5

7a. **If you would like to, please explain further**

_____
_____

8. **What do you like least about your bedroom?**

_____
_____

9. **Something else I wish I could do in my room would be . . .**

_____
_____

10. **I like the amount of sunlight that comes through my window.**

Strongly disagree				Strongly agree
1	2	3	4	5

11. **I like the view from my window.**

Strongly disagree				Strongly agree
1	2	3	4	5

12. **I feel safe in my bedroom.**

Strongly disagree				Strongly agree
1	2	3	4	5

13. **The light that comes into my bedroom keeps me awake at night.**

Strongly disagree				Strongly agree
1	2	3	4	5

14. **The other kids wake me up at night.**

Strongly disagree				Strongly agree
1	2	3	4	5

15. **Staff noises wake me up at night.**

Strongly disagree				Strongly agree
1	2	3	4	5

16. **My bed is comfortable.**

Strongly disagree				Strongly agree
1	2	3	4	5

17. **I like the furniture in my bedroom.**

Strongly disagree				Strongly agree
1	2	3	4	5

The next questions are about the cottage.

18. **If you could add one new room to the cottage what would it be?**

_____
_____

19. **If you could take one room away from the cottage what would it be?**

_____
_____

20. **The cottage is helping me get better.**

Strongly disagree				Strongly agree
1	2	3	4	5

21. **I like where I can visit with my family.**

Strongly disagree				Strongly agree
1	2	3	4	5

22. **I like where I eat, relax and go to school.**

Strongly disagree				Strongly agree
1	2	3	4	5

23. **I have made friends here.**

Strongly disagree				Strongly agree
1	2	3	4	5

24. **I feel comfortable in the cottage.**

Strongly disagree				Strongly agree
1	2	3	4	5

25. **Anything else you would like to add or share, about the cottage or your bedroom?**

_____
_____
_____
_____
_____
_____
_____

This is the end of the questions and survey.
Thank you for your help.

Appendix F

Interview Questions for Children up to Age 12

UNIVERSITY OF MANITOBA

Hi, my name is Dana Tapak and before we get started I want to thank you for meeting with me and answering my questions.

I am a graduate student at the University of Manitoba in the Masters of Interior Design program and want to learn about your experiences here in the hospital. The information you provide will help to make mental health units for children and teens that much better.

When I keep track of our interview notes and all of my paperwork and most importantly to keep your privacy, I won't use your real name. Is there a nick name that I could use for my paperwork for you instead? Or a middle name?

Nickname or middle name:	Date:
Age:	Length of stay [days]:
Gender:	Cottage #:
Have you filled out the survey related to this interview? Yes No	Bedroom number: *Shaded area to be completed with staff*

OK, now onto the next part.

I have two questions that I am going to ask you about the Cottage and then five questions about your bedroom here in the Cottage.

Are you ready to get started? If at any time you want to stop or have any questions, just let me know.

1. Can you list some of the things that stress you out the most while being here at the Cottage?

2. Ask the participant to further explain [should one of the three responses to number 1 be physically or environmentally related].

The next 4 questions are going to be about the Cottage.

3. Do you feel comfortable while in the Cottage?

4. Can you explain?

5. Is there anything about the Cottage that you would like to change?

6. Can you explain?

The next 8 questions are going to be about your bedroom.

7. What do you like about your bedroom?

8. What don't you like about your bedroom?

9. Is there anything about your bedroom that you would like to change?

10. Can you explain?

11. Do you feel comfortable while in your bedroom?

12. Can you explain?

13. If you could have one colour in your bedroom, what colour would you like?

14. Is there anything else you would like to tell me about your bedroom or the Cottage?

This is the end of the interview. Thank you for helping me and answering my questions.

Appendix G

Interview Questions for Adolescents Aged 13 to 17

UNIVERSITY OF MANITOBA

Hi, my name is Dana Tapak and before we get started I want to thank you for meeting with me and answering my questions.

I am a graduate student at the University of Manitoba in the Masters of Interior Design program and want to learn about your experiences here in the hospital. The information you provide will help to make mental health units for children and teens that much better.

When I keep track of our interview notes and all of my paperwork and most importantly to keep your privacy, I won't use your real name. Is there a nick name that I could use for my paperwork for you instead? Or a middle name?

Nickname or middle name:	Date:
Age:	Length of stay [days]:
Gender:	Cottage #:
Have you filled out the survey related to this interview? Yes No	Bedroom number: *Shaded area to be completed with staff*

OK, now on to the next part.

I have 4 questions that I am going to ask you about the Cottage and then 6 questions about your bedroom here in the Cottage.

Are you ready to get started? If at any time you want to stop or have any questions, just let me know.

1. Can you list some of the things that stress you out the most while being here at the Cottage?

2. Can you further explain [should one of the three responses to number 1 be physically or environmentally related].

The next 5 questions are going to be about the Cottage.

3. Do you feel comfortable while in the Cottage?

4. Can you explain?

5. Does anything about the cottage add to your stress level?

6. Can you explain?

7. Is there anything about the cottage that you would like to change?

8. Can you explain?

9. Are there any rooms you would like to rearrange the order of?

10. Are there any rooms that you would like to change the size of?

The next 6 questions are going to be about your bedroom.

11. What do you like about your bedroom?

12. What don't you like about your bedroom?

13. Is there anything about your bedroom that you would like to change?

14. Can you explain?

15. Do you feel comfortable while in your bedroom?

16. Can you explain?

17. If you could have one colour in your bedroom, what colour would you like?

18. Is there anything else you would like to tell me about your bedroom or the Cottage?

Appendix H

Interview Questions for the Staff

UNIVERSITY OF MANITOBA

Hi, my name is Dana Tapak and before we get started I want to thank you for meeting with me and answering my questions.

I am a graduate student at the University of Manitoba in the Masters of Interior Design program and want to learn about your experiences here in the hospital. The information you provide will help to make mental health units for children and teens that much better.

For my collating, analyzing and documentation, I will not be using your name and will be referring to you as participant #1, participant #2 etc. Is that alright with you?

Participant # _____	Date: time:
Hospital Name:	Position:
How long have you worked in this unit?	Unit Name:

OK, now on to the next part.

I have 5 questions that I am going to ask you about the patients in relation to the Cottage, then 4 questions about the patients' bedrooms here at the Cottage and lastly 5 questions about the staff spaces in the Cottage.

I want to learn about your experiences and observations here and use your information to in turn make mental health units for children and teens that much better.

Are you ready to get started? If at any time you want to stop or have any questions, just let me know.

1. Upon arrival to the Cottage how would you describe the patient's interaction with the environment?

2. Are there any patients you notice who do or do not relate to the environment? [definition of relate: have connection with something, to concern, involve or apply to something]

2. A. Can you provide examples?

3. Could anything be changed in the environment that would better assist the patients in their transition to the Cottage?

The next 5 questions are going to be about the Cottage.

4. In your opinion how comfortable are the patients while in the Cottage?

4. A. Can you please explain?

5. Is there anything about the Cottage that you would like to change?

5. A. Can you please explain?

6. Are there any rooms you would like to rearrange the order of?

7. Are there any rooms that you would like to change the size or function of?

8. In your opinion is the Cottage restorative for the patients? [Definition of restorative: giving new strength and something that restores].

The next 4 questions are going to be about the patients' bedrooms.

9. In your opinion, do the bedrooms function well and meet the needs of the patients?

    9. A. Please elaborate.

10. Do the bedrooms' support and allow the staff to do their job effectively?

    10. A.Please elaborate.

11. In your opinion do you feel the patients are comfortable while in their bedrooms?

    11. A. Please elaborate.

12. In your opinion are the patients bedroom restorative for the patients? [Definition of restorative: giving new strength and something that restores].

The next 5 questions are going to be about the staff spaces in the Cottage.

13. Can you name the staff spaces in the Cottage?

14. Do the staff spaces support and enable you to do your best work?

    14. A.Please elaborate.

15. Are there any changes to the Cottage that would assist you?

16. Is there anything else you would like to add regarding the patients and the interior environment?

17. Is there anything else you would like to add regarding your interaction with the interior environment?

Thank you for your input and time. This is the end of the interview.