

Chapter 4: Methodology

4.1 Introduction

The purpose of this study is to formulate a set of guidelines that will help to inform the design of therapeutic outdoor environments for persons with dementia. The design guidelines are intended to be used as a reference for designers when faced with the challenges of understanding the needs of persons with dementia in outdoor environments. The methodology includes a literature review, followed by interviews and surveys, case studies, development of preliminary design guidelines, and refinement of the guidelines.

The literature review offers an overview of the prevalence, physiology, and stages of Alzheimer's disease and related dementias (ADRD). It describes the needs and limitations of persons with dementia in outdoor environments, and the primary theories that relate to the needs of persons with dementia in outdoor environments. Also described in the literature review are emotion-oriented therapeutic approaches, including validation therapy, reminiscence therapy, and multi-sensory stimulation. These forms of treatment for persons with dementia should be accommodated in outdoor spaces that are designed for persons with ADRD.

Results of the literature review guided subsequent direction of the study. Firstly, in combination with my personal experiences and the literature, it provides a model for therapies for persons with dementia as applied to landscape settings. The model illustrates relationships among treatment factors, such as clients, settings, activities, the senses affected, stimuli, and memory tools. The model also outlines potential outcomes of these treatments.

Secondly, the literature review certifies a need for empirical research to test widespread assumption about the benefits of therapeutic outdoor spaces for persons with dementia. These conclusions led to the parallel investigative methods that are utilized in this study.

4.2 Design Guidelines

The development of preliminary design guidelines for landscape architects who are faced with the challenges of designing successful spaces for adults with dementia are the main focus of this study. The guidelines are derived from the initial literature review and my own experiences while working with dementia-care recipients in the landscape. The preliminary design guidelines are tested by evaluating professionals in the fields of landscape architecture and gerontology, and by applying them to case study sites. They are intended to assist landscape designers in creating, safe, functional, therapeutic outdoor spaces for persons with dementia.

The refined design guidelines are in a table format and are associated with the physical, social, cognitive, and behavioral needs that persons with dementia have in relation to the outdoor environment. For each physical, social, cognitive, and behavioral need, characteristic changes associated with ADRD, desired goals of outdoor spaces, and design criteria are specified.

4.3 Interviews and Surveys

The interviews were conducted to gain the perspectives of the participants regarding the preliminary design guidelines. Three participants, chosen to represent a range of occupations in the fields of landscape architecture and gerontology were interviewed. The interview process was separated into two parts. The first part of the

interview focused on the preliminary design guidelines. The participants were E-mailed the guidelines prior to the interview and were asked to rank each for clarity and relevance to the quality of life of older adults with dementia. The participants were also asked to rank the criteria as a method of testing the significance of the design guidelines from professional standpoints.

In the second part of the interview process, a survey was E-mailed to the participants, with questions regarding their experiences with persons with dementia in outdoor environments. The purpose of conducting this portion of the interview was to test the literature findings that outdoor environments can support interactions between people and the environment by responding to the individual's physical and mental disabilities and by compensating for his or her loss of sensory functions.

4.4 Case Studies

The purpose of examining case studies as a component of this study is to test the preliminary design guidelines. Four outdoor gardens in facilities for persons with ADRD were evaluated based on site visits to test whether their designs were consistent with the preliminary design guidelines. By observing and evaluating the case study sites, the preliminary design guidelines can be re-examined and improved after additional studies are conducted with larger participant and case study samples.