

Chapter 5: Interviews and Surveys

5.1 Introduction

The purpose of conducting interviews and surveys is to evaluate the preliminary design guidelines developed through the literature review. The participants include an activities director at an Adult Day Services Center (Participant 1), a geriatric psychiatrist who currently works in an Acute Psychiatry ward at a hospital (Participant 2), and a landscape architect whose firm frequently designs outdoor spaces at health-care facilities (Participant 3). Initially, telephone interviews were conducted to gain the perspectives of the participants regarding the preliminary design guidelines. Part II of the evaluation process was an E-mail survey which was sent to each of the participants to obtain their opinions on the effects of therapeutic outdoor environments on the mental and physical well-being and overall quality of life of persons with dementia.

5.2 Introduction to Part I - Interviews

First, participants were asked whether the design criteria were clear to them. Then, they were asked to rank the design criteria as *essential*, *somewhat essential*, *not essential*, and *harmful* (see Appendix A for the criteria definitions).

- *Essential*: The design criterion is mandatory in an outdoor environment to support the quality of life of adults with dementia.
- *Somewhat essential*: The design criterion is an important component in supporting older adults' quality of life in an outdoor environment but is not necessary.
- *Not essential*: The design criterion does not need to be included in the design of outdoor spaces for persons with dementia to support their quality of life, but is also not detrimental to their quality of life.

- *Harmful*: The design criterion is not safe for older adults with dementia and should not be included in the outdoor space.

5.3 Evaluation of Part I

It is difficult to generalize the results of the phone interviews (see Appendix B) due to the small sample size; however, the majority of responses are consistent. Differences in responses can be explained by differences in participants' occupations and the types of care-recipients with whom the participants have most experience. The interviewees agreed that the format and wording of the preliminary design guidelines are overall extremely clear. The exceptions pertained to landscape architectural terms that are specific to the discipline. If the guidelines are primarily intended for use by design professionals, the language may not be a critical factor, however; if it is likely that health-care professionals will be involved in the design process, these terms may need to be clarified.

The first criterion assessed was “interesting variation in possible interactions along the pathway.” All respondents agree that this sub-section is at least *somewhat essential* in supporting older adults' quality of life. Participant 1 argues that it is not necessary to improve their quality of life, but it is important.

“Plants that attract birds and butterflies, a variety of textures, forms, and scents, and has seasonal qualities” is the next criterion. Again, the respondents agree that this sub-section is at least *somewhat essential* in supporting older adults' quality of life. Participant 2 considers this criterion as critical to a wander garden; without these qualities, the outdoor space is worthless. However, the landscape architect, Participant 3 cautions against attracting birds to the site because of maintenance issues. Overall, plants

with many sensory stimulating qualities are considered a positive attribute of therapeutic outdoor spaces.

The participants each ranked incorporating “wildlife, water, and sculpture” as *somewhat essential* in supporting older adults’ quality of life. All of the participants agree that sculpture, designed appropriately, is an excellent feature to include in the outdoor environment. The participants suggest simple, manipulative structures that are made from recognizable materials, i.e. garden or farm tools that prevent anxiety and disorientation. Participant 3, the landscape architect, cautions against including water due to increased glare and additional maintenance concerns. However, if properly utilized, wildlife, water, and sculpture can be valuable elements of therapeutic outdoor spaces.

All participants agree that a “minimum six foot wide pathway” is *somewhat to essential* in outdoor spaces designed for dementia-care recipients. Participant 3 does not disagree but offers the opinion that site constraints do not always allow for this much space. The participants all agree that “ramps with handrails and no stairs” and the “building at the same level as the outdoor space” are *essential* in supporting older adults’ quality of life. Ramps with handrails are beneficial for both the care-recipient and the caregiver assisting them. Participant 3 reminds designers that building codes should be followed with regard to the dimensions of the handrails. In addition, the texture should be appropriate for comfort, and the person should be able to grasp the handrails effectively.

The participants agree that “minimal or no grade changes” is *somewhat essential* in supporting older adults’ quality of life. Participant 1 argues that persons with dementia do not always have physical disabilities, and therefore, minimal or no grade changes are

not necessarily essential to their quality of life. And Participant 3 also argues that as long as there is only a 1 to 2 foot change in elevation, the higher elevation might add interest to the site. All participants understand the risks involved with increased grade changes, and agree that a minimal slope is *somewhat essential* to the quality of life outdoor spaces for persons with dementia.

There is variation in opinion on including “separate tables and chairs” in outdoor spaces for persons with dementia. Participant 2, the geriatric psychiatrist, argues that separate tables and chairs may cause harm to the users of the space because the chairs and/or benches can be used as weapons and thrown, if light enough. Participants 1 and 3 agree that separate tables and chairs are *essential* to older adults’ quality of life as long as the chairs and benches have armrests and backrests and the tables are wheelchair accessible.

The differences in perspectives may be due to Participants 1 and 2 working with different types of care-recipients at diverse facilities. Participant 1 works with clients who have a variety of impairments. Those with dementia are not typically in the advanced stages of the disease and can benefit from respite care without being institutionalized. Conversely, Participant 2 works on an acute psychiatry unit with residents who are in the advanced stages of the disease and live at the facility. These differences in experience help explain why Participant 2 would rank having separate tables and chairs as *not essential to harmful*, while Participant 1 can envision separate tables and chairs as a positive attribute for flexibility and accessibility. Nevertheless, the results suggest that attention should be accorded to the design and weight of site furniture to ensure comfort and reduce potential for misuse of furniture.

The participants agree that incorporating raised beds in the outdoor space is *essential* in supporting the user's quality of life. Participant 1 does not think that it is necessary for facilitating horticultural therapy, but agrees that it is essential to a good recreational program. Participant 3 reminds designers that the beds must be wheelchair accessible.

The participants have varying opinions on how essential movable furniture is to older adults' quality of life. Again, Participant 2, the geriatric psychiatrist, argues that it can be harmful if light enough to throw; Participant 1, the activities director, does not think it is necessary, but prefers stationary seating along the pathway, and does agree that it is essential for flexibility. Participant 3, the landscape architect, believes that movable furniture deters territoriality, but agrees that seating (benches) along the pathway should be stationary. These varied results indicate that the designer should offer a choice of fixed and/or movable furniture. Again, the difference in opinions may be explained by the type of facility and care-recipients with whom the participants regularly work.

All of the participants agree that it is *essential* that "spaces allow for a variety of activities" to support older adults' quality of life. There is minimal variation in responses regarding "public and private spaces." However, regardless of how each participant ranked this sub-section, they all agree that while families deserve privacy when visiting their family members with dementia, all spaces still need to be observable by staff. Participant 1 suggests that persons with dementia have a tendency to wander and hide, and care-recipients may be overlooked by staff in a private space. The participants agree that if private spaces are designed appropriately, they can be important components of the outdoor space.

The participants agree that “formal and informal” spaces are *not to somewhat essential* in outdoor spaces for persons with dementia. These results may be due to the fact that the participants did not clearly understand the definition of “formal and informal” spaces that was given to them. Further research could be useful to determine whether this criterion is necessary. The participants also all agree that “sunny and shady spaces” are *essential* in supporting the quality of life of persons with dementia. Participant 3 suggests that it is important to have both types of spaces for comfort, and it is important to consider modulating the temperature through grass and deciduous trees.

The “potential for a variety of activities” is agreed upon by Participants 1 and 3 as *essential* in supporting older adults’ quality of life. Participant 2 agrees that it is essential but not mandatory for all outdoor spaces for persons with dementia. All participants agree that “transitional spaces from indoors to outdoors” in regard to spatial variety are *somewhat essential*. This is a desirable design feature that allows the care-recipients to experience the outdoors from inside. While not all facilities may have the space for full-sized solariums, providing porches as transitional spaces at key entrances may be feasible.

Exposure to a variety of interactions, including horticulture, music, and occupational therapy is ranked *somewhat to essential* by the participants. Participant 1 suggests adding recreational and physical therapy to the criteria. Social and game tables are ranked *somewhat to not essential* by the participants. The participants agree that if the tables are not set up specifically for games and they are versatile, they may be a valuable component in the outdoor space. However, since they were not ranked highly, they might need to be reconsidered as a design criterion. The participants agree that

“position seating for observation” is *somewhat to essential* in supporting quality of life of persons with dementia.

There is overwhelming agreement that “looped pathways that do not dead end” are *essential* to the success of outdoor spaces for persons with dementia. However, Participant 2, the geriatric psychiatrist, disagrees with Participants 1 and 3 that landmarks should be provided in outdoor spaces. Participant 2 argues that the care-recipients will not remember or utilize the landmarks. His perspective might be attributable to working with dementia-care recipients who are in the late stages of the disease and have lost the ability to recall short-term memory. But Participant 3, the landscape architect, disagrees and thinks that the landmarks should be placed so as to be viewed from different points, taking into consideration that care-recipients are often looking toward the ground as they walk.

The participants do not think that “transition from indoors to outdoors” in regard to ease of orientation is *essential* to older adults’ quality of life. Participant 1 argues that this transition space will not help care-recipients orient themselves and therefore, it does not enhance the experience of the garden. However, Participants 2 and 3 agree that older adults should have the opportunity to make the decision of whether to proceed outdoors or not. And it is unanimous that the participants do not view “changing paving texture or pattern at intersections” as *essential*. All agree that this change in pattern may be confusing if there are too many intersections. Furthermore, it might give the impression of a change in elevation, which may cause anxiety. Participant 1 suggests that symbols or arrows on the pathways may work better and cause less maladaptive behavior. This

suggests that alternatives to pavement changes should be used at key decision points, if at all.

Design criteria for the guidelines of “memory stimulation” and “safe environment” include providing memory tools, incorporating nature and wildlife, designing safe pathways, choosing high branching trees to deter climbing, having a minimum 6 foot secure screened fence, having views of all spaces in the outdoor space, directing lighting downwards, and including non-toxic plants. The participants agree that all of these criteria are *somewhat to essential* in supporting older adults’ quality of life. The main reason that providing memory tools was ranked by Participants 1 and 2 as *somewhat essential* is due to the difficulty of finding similarities in the entire population. Memory tools are significant features of outdoor spaces, but due to the difference among individuals, the population’s history needs to be well-researched in order for them to be effective.

Participants 1 and 3 offer additional reasons why high-branching trees are essential. Staff does not want care-recipients to bump their heads on low branches and low branches may also obstruct views. Variance is found in the “lighting directed downward” sub-section. Participant 3, the landscape architect, ranks this criterion as *essential* and suggests that the light be below eye level to prevent shadows, which may cause disorientation for persons with dementia. Participant 2, the geriatric psychiatrist, prefers ground lights, and Participant 1, the activities director, argues that it is unlikely that persons with dementia will be outside in the dark; therefore, lights are not necessary. The type of facilities that Participants 1 and 2 work at may explain the differences in perspectives regarding outdoor lighting in the landscape. Participant 1 works at an Adult

Day Services Center where the clients leave by 5 p.m., whereas Participant 2's care-recipients are short or long-term residents who might utilize the garden in the evening. The final question ended with unanimous agreement that non-toxic plants are *essential*. Participants also agree that no thorns, sharp edges or anything harmful to the skin should be included in the wander garden.

5.4 Synthesis of Part I

Though the participants of the study have widely varying expertise and practice in different occupations, their opinions regarding design guidelines for persons with dementia are similar. The main differences in perspective occur between the health-care professionals and the design professional. This may be explained by the landscape architect's level of training, skill, and knowledge of design of outdoor spaces. The differences in opinion between Participants 1 and 2 may be explained by the diverse care-recipients with whom they work, as well as the different types of facilities where they work: Participant 1 works at an Adult Day Services Center that serves respite clients and Participant 2 works with short and long-term hospital residents.

The results of the phone interviews support the majority of design criteria as being *somewhat* to *essential* in enhancing quality of life of older adults with dementia. The criteria that may need to be reconsidered as components of the guidelines include: formal and informal spaces, social and game tables, and changing the paving texture or pattern at the intersection of pathways. Before omitting these criteria from the design guidelines, additional research should be conducted using a larger sample size for more accurate results.

5.5 Introduction to Part II - Surveys

While the interview questions in Part I were consistent for all participants, the surveys that were sent by E-mail to the participants in Part II of the process addressed their particular areas of expertise regarding the design of outdoor spaces for persons with ADRD (see Appendix C for survey questions). The participants' responses to the surveys represent an essential component of this study because they are derived from practical experiences which compliment the research findings of the literature review.

Participant 1, the activities director at the Adult Day Services Center was asked questions concerning clients' interest in utilizing outdoor space; how the outdoor environment affects clients' behavior; whether sensory stimulation and reminiscence therapy might affect clients' well-being; and what features are essential in an outdoor space of this type. Participant 2, the geriatric psychiatrist, was asked questions regarding the benefits that the outdoor environment has on persons with ADRD; which elements would be beneficial in an outdoor space; which factors affect the potential success or failure of a space; and his perception of the knowledge that landscape architects have regarding persons with dementia. Lastly, Participant 3, the landscape architect, was asked questions about designing therapeutic outdoor spaces for persons with dementia; how he gained knowledge about the disease; and the most beneficial elements that might be included in outdoor spaces. Though different questions were asked of the participants, I anticipated that the results would be cohesive, and would provide a strong argument in favor of providing well-designed appropriate therapeutic outdoor environments for persons with ADRD.

5.6 Evaluation of the Surveys

The responses from the participants clearly support the findings of this study. The activities director has a vast amount of experience working with persons with diabetes, dementia, post-stroke, depression, and Parkinson's disease. Though a variety of clients attend the Adult Day Services Center, she thinks that it would be effective to design an outdoor space specifically for persons with dementia. Currently, the center offers clients a garden and patio space in which games, gardening, walks, reminiscence, parties, and solitude are available and facilitated.

Participant 1 explains that clients generally are interested in going outdoors; however, weather, light, distance, and seating may limit those who choose to do so. Additional limitations of the outdoor space that she has observed with regard to changes in the client's behavior are: lighting that creates glare on the paving material, creating a fall risk; steps that encourage the client to walk up, but that do not feel comfortable to walk down; and spaces that are too small or too open, generating anxiety in the client. All of these are functional factors related to the outdoor environment. Furthermore, Participant 1 distinguishes outdoor features that are important for clients at the Adult Day Services Center. They include: level ground, raised beds, stable seating with backs and armrests, varying textures, fragrances and color, shade, and non-poisonous vegetation. The participant also adds that a natural environment is most beneficial to users, offering the example of a screened fence with vegetation that prevents clients from feeling "caged-in."

Participant 1 agrees that incorporating sensory stimulation and reminiscence therapy in an outdoor space will improve mood, reduce anxiety and disturbing behavior,

improve quality of life, and decrease depression in the clients. However, clients' history and interests will affect whether reminiscence therapy will promote positive memory recall. Participant 1 thinks that for those clients who are impacted positively by their memories, improved quality of life can result from rediscovering past roles and participating in something meaningful.

Participant 2, the geriatric psychiatrist, was able to offer expertise on a wander garden designed at the Virginia Veteran's Care Center (VVCC), where a survey on residents, family, and caregiver responses to the garden has been conducted and results are still being formulated. The observations that the participant has of the wander garden at the VVCC are both positive and negative. The survey results of the VVCC's wander garden show an overwhelmingly positive response towards the wander garden on the part of staff and family of dementia residents. Participant 2 explains that an increase in quality of life and mood, and a decrease in aggression (measured by the Mansfield Cohen Agitation Index) are benefits of access to therapeutic outdoor environments for persons with dementia. However, this participant also identifies some negative design qualities, primarily related to functional factors, such as doors being too heavy for the residents to open themselves; walkway patterns confusing residents, causing them to fall; right-angled instead of curved corners at walkway intersections, for ease in wheelchair accessibility; high-glare surfaces; lack of shade; a limited number of private, small group spaces for meeting or contemplation; and a deficiency in sensory stimulation. Due to these factors, Participant 2 finds the VVCC wander garden to be "grossly underused" and "not considered important therapeutically to the VVCC staff."

Participant 2 thinks that many landscape designers are aware of the current literature on dementia, but agrees that quantitative data on the benefits of nonpharmacological forms of treatment in outdoor environments for persons with dementia are needed, and that research studies can improve landscape designers' knowledge of persons with dementia. Participant 2 states that the benefit of design guidelines depends on whether guidelines are formulated from "sound research findings." He also points out the need to consider that outdoor spaces will vary according to the micro and macro climates.

Participant 2 defines wander gardens as promoting pleasurable memories, and triggering sensory responses among residents. Therefore, he agrees that the incorporation of sensory stimuli and reminiscence therapy in outdoor spaces are essential for persons with ADRD. However, the participant explains that it is necessary to design for the particular baseline of the group.

Due to his professional experience in landscape architecture, Participant 3 offers a different perspective on the questions. He has had the opportunity to work for architectural firms with extensive experience in design for the life-care industry. However, he explains that sometimes designs address building interiors exclusively, rather than including outdoor spaces. Seminars and workshops that address topics in aging in the realms of both architecture and landscape architecture present opportunities for design professionals to inform themselves regarding the design of outdoor environments. Participant 3 strongly argues the importance of attending continuing education workshops and cites the valuable information gained from doing so. In researching the implications of dementia, this participant accesses books from experts,

such as Diane Carstens. He has also examined many “mediocre” wander gardens. However, he thinks that design failures are often due to the fact that designers’ intentions are undermined by staff who do not understand the design elements, and thus unknowingly reduce the benefits to care-recipients.

Most importantly, Participant 3 highly recommends that designers engage in frequent and ongoing discussions with administrators and staff at the health-care facilities. He suggests that staff and maintenance are the most important factors to the success of a wander garden. He stresses that the staff must be able to observe the care-recipients in the space, and the space must be low maintenance.

As a landscape architect, the participant agrees that research literature should be more accessible to designers. Currently, although it is available, it is not widely used or highly accessible to landscape architectural professionals.

5.7 Synthesis of Part II

The respondents’ participation in this study is invaluable. As mentioned previously, the purpose of including interviews and surveys in this study is to gather expertise from practicing professionals in landscape architecture and gerontology, in addition to obtaining information from the current research literature.

In instances where similar questions were posed, resultant responses are consistent. For example, the participants all agree that the benefits of therapeutic outdoor spaces for persons with dementia can be significant. Additionally, all agree that no matter what type of outdoor space is available, there are certain elements that should be included and many that should be considered for inclusion at the outset of the design process. Participants 2 and 3 both suggest that management of outdoor spaces by staff

needs to be improved. Both participants agree that this is critical to having successful therapeutic outdoor environments. Interestingly, many of the participants' complaints regarding existing spaces seem to target basic functional concerns rather than focusing on the therapeutic needs of persons with dementia. This suggests that landscape architects must take greater care in addressing basic functional factors, to ensure that environments meet the functional needs of elderly and disabled users, in addition to addressing therapeutic objectives for people with dementia.

The responses received were appropriate to the questions asked and to the participants' professional expertise. However, Participant 3's response to how information about persons with ADRD was accessed revealed an alternative method for disseminating this research. He stated that information regarding the needs of persons with ADRD is sometimes provided through continuing education lectures and seminars. Although the research literature does not identify professional seminars offered by behavioral psychologists, administrators, and landscape architects as sources of information on designing therapeutic outdoor environments for persons with dementia, evidently, these seminars and workshops offer useful vehicles to inform practicing professionals about the needs of persons with dementia. Perhaps more seminars need to be presented to expand the knowledge base available to designers who design settings for persons with ADRD.