

## Patient Protection in the Use of Horticulture Therapy for Different Populations

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### Aims

Horticulture therapy (HT) has gained popularity among health and social care professionals for use in various patient populations and settings. There are reports on the uses and outcomes of HT. However, information is limited about the caution that should be exercised when using HT. This poster presents the integrated findings from three studies. Study I explored the use of HT for frail elderly people in nursing homes (NH), Study II investigated the use of HT for NH residents with dementia, and Study III examined whether the use of HT for palliative care in-patients would improve their quality of life.

### Methods

Studies I and II used qualitative methods – participant observation by the interventionist, non-participant observations by a third party, and audio-recording of the conversations during the sessions for transcription and analysis. Study III was an intervention study with a mixed methods design using the Quality-of-life Concerns in the End of Life Questionnaire (QOLC-E) and unstructured interviews to obtain both quantitative and qualitative data. Convenience sampling was adopted for all three studies.

### Results & Discussion

The results showed that HT is suitable for NH populations who are frail, NH residents with dementia, and palliative care in-patients. However, caution needs to be exercised in the planning and delivery of HT. The following table shows the concerns that need to be noted: (i) safety; (ii) manpower; (iii) infection control; (iv) sustainability; (v) comfort; and (vi) morale.

Concern	Solutions
<b>Safety</b>	General: be mindful of the participants' cognitive status and abilities
1.1 Putting things (e.g., soil) into the mouth or rubbing the eyes with a soiled hand	<ul style="list-style-type: none"> <li>Help the clients to recognize the soil</li> <li>Assess whether clients will put the soil into their mouth. If so, make adjustments, such as using a different planting medium, e.g. water, sphagnum moss, etc.</li> <li>Have volunteers ready to help and supervise the clients</li> <li>Use a trowel to plant</li> <li>Plants should be non-toxic and not dangerous</li> <li>Assess the client's ability to use sharp objects</li> </ul>
1.2 Some foods may not be easy to chew (e.g., rice paper) and choking may result	<ul style="list-style-type: none"> <li>Make a prior assessment of the situation when food is involved in HT activities</li> </ul>
<b>Manpower</b> e.g., a lack of enough volunteers to assist in providing closer supervision	<ul style="list-style-type: none"> <li>Good planning is needed – based on the participant's needs and abilities</li> <li>Measures need to be taken to ensure that volunteers will show up</li> </ul>
<b>Infection control</b> e.g., The potential exists for infections related to lower bodily resistance in palliative care and frail older persons	<ul style="list-style-type: none"> <li>Use pasteurized soil</li> <li>Wear a mask, put on gloves, an apron, and hand sleeves</li> <li>Wash the hands upon completion of the session or whenever needed</li> </ul>
<b>Sustainability</b> e.g., plants will suffer and die if no one is responsible for watering between HT sessions	<ul style="list-style-type: none"> <li>Arrange for a caretaker to maintain the plants</li> <li>Arrange for clients to water their plants between HT sessions</li> </ul>
<b>Comfort</b>	
5.1 May become easily <u>fatigued</u>	<ul style="list-style-type: none"> <li>Space out activity components and allow adequate time for each step</li> <li>Watering tools should be lightweight and easy to grip</li> <li>Can use tailor-made watering tools or can make small holes in the cap of a plastic bottle</li> <li>Can be seated while watering the plants</li> <li>The plants should be placed at higher levels so watering can be done from a comfortable position</li> </ul>
5.2 <u>Emotional changes</u> in palliative care patients during sharing	<ul style="list-style-type: none"> <li>Offer emotional support and refer to a counselor if needed</li> </ul>
5.3 <u>Sensory loss</u> e.g., loss of teeth, thus unable to eat or enjoy certain foods; hard of hearing and unable to follow the instructions of the facilitator; poor vision may affect performance	<ul style="list-style-type: none"> <li>A proper assessment should be made prior to arranging for a client to join the group</li> <li>Help the participants to wear accessories as appropriate (e.g., glasses and hearing aids)</li> <li>Allow time for the participants to respond to instructions and perform each step</li> <li>Repeat instructions in a clear voice</li> <li>Provide adequate facilitation by volunteers</li> </ul>
<b>Morale</b>	
6.1 May not be confident performing certain activities that demand a higher level of physical or cognitive function (e.g., writing and drawing); also may become frustrated	<ul style="list-style-type: none"> <li>Proper leveling of activities suited to the functioning capacity of the participants</li> </ul>
6.2 The <u>plants may die</u>	<ul style="list-style-type: none"> <li>Proper maintenance of plants</li> <li>Use hardy plants</li> <li>Provide counseling for the participants if they are upset when the plants die</li> </ul>



### Conclusions

Different participant populations have their special needs and abilities in performing horticultural activities. However, these problems are not only associated with HT. Given an appropriate assessment, activities suited to the functional level of the participants, thoughtful preparation in the selecting of plants and designing of activities, as well as close supervision and facilitation by volunteers, participants of diverse needs are able to enjoy HT as much as able-bodied people. Because potential problems associated with HT cannot be found in the literature, our findings provide important information on the use of HT in health care.

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