

# Improving User Experience in Horticultural Therapy :

## An App-Based Approach for Enhancing Engagement among Individuals with Social Anxiety Disorder

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### Abstract

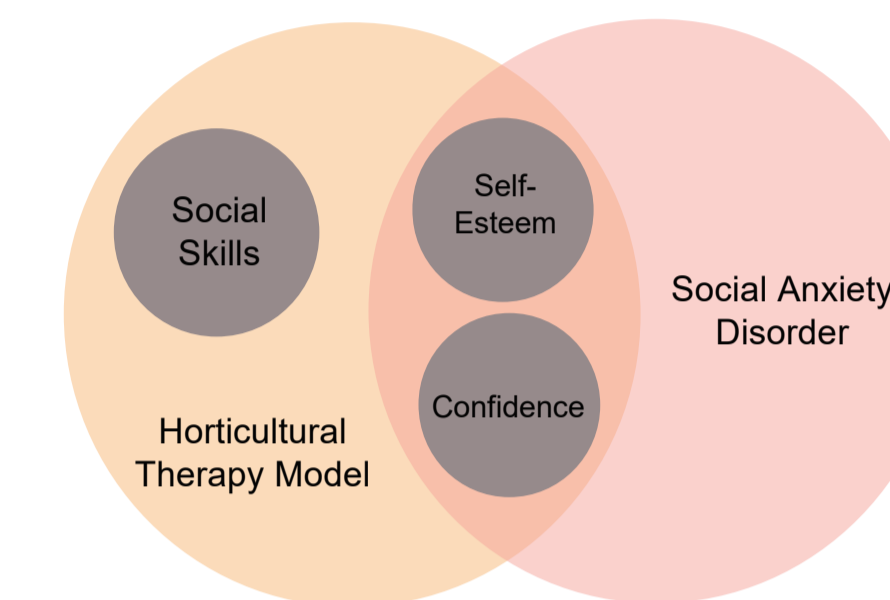
In today's fast-paced society, social anxiety issues have become a widespread psychological disorder. Numerous studies have confirmed the positive impact of horticultural therapy(HT) on improving the mental health status of individuals. Despite the fact that HT is widely recognised as a promising mental health intervention in academia and clinical practice, its popularity and dissemination in real life remains relatively low. The main objective of this study was to investigate how to increase the potential of HT in people with social anxiety disorder, thereby promoting its wider use in society. Through a qualitative research method using semi-structured interviews, I will listen in-depth to the thoughts of people with social anxiety disorder in order to reveal their experiences, needs and expectations during HT. I will also learn about the current level of development of HT from the perspective of horticultural therapists and their suggestions for making HT online. By integrating the literature and the above findings, I will provide strong theoretical support and practical guidance for the design of a HT mobile APP for people with social anxiety disorder, which will have a positive impact on the development of the mental health field.

### Background & Introduction

The prevalence of social anxiety disorder has increased by 2.25% since the COVID-19 pandemic (Eres et al., 2021). Social anxiety is further exacerbated by the impact of closure and social distance policies, which reduce people's connection to nature. Although horticultural therapy has been shown to be effective in relieving anxiety (Lee et al., 2002), its use in practice remains limited. This may be due to a lack of public understanding or a lack of suitable therapeutic environments. In view of this, this study aims to fill in the research on horticultural retreats for people with social anxiety disorder in order to increase the public awareness and application of horticultural therapy, thereby enhancing people's mental health and well-being.

### Research Questions:

- I. What are the main problems faced by people with social anxiety disorder when they go on horticultural therapy?
- II. What are some alternatives to the current model of horticultural therapy that could be replaced by going online?
- III. How can they be helped in therapy to overcome their fear of socializing in order to better participate in horticultural therapy and enjoy its benefits?



### Study Methodology



Firstly I searched for participants through social media and finally I screened the final participants through the Liebowitz Social Anxiety Scale, which were 2 horticultural therapists and 3 experiencers.

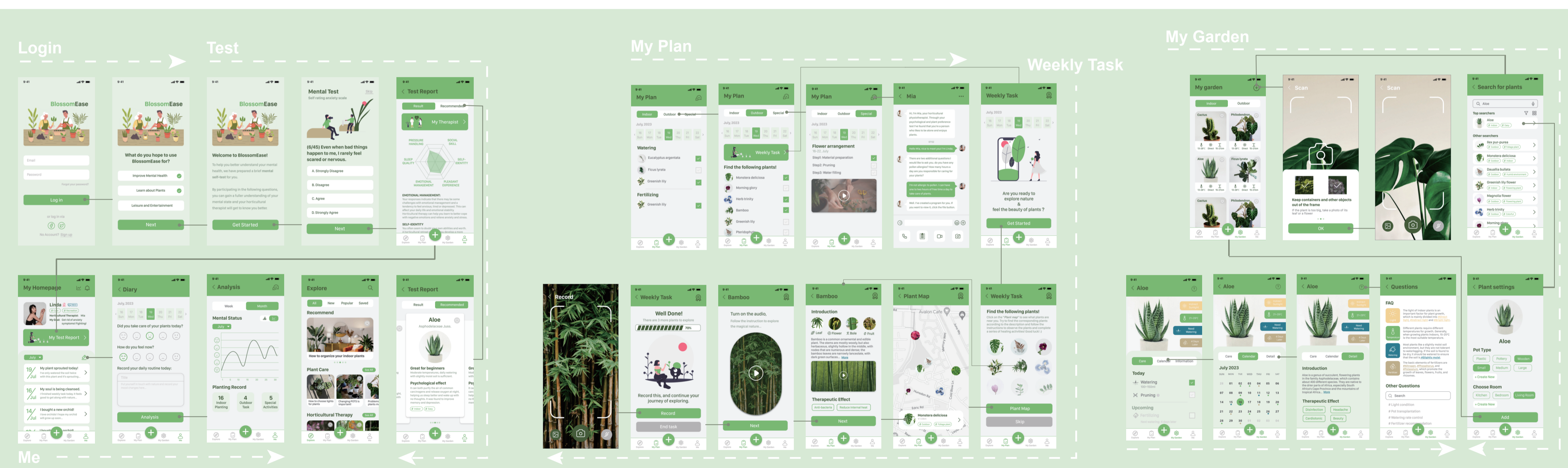
I used an online semi-structured interview to investigate the challenges faced by individuals with social anxiety disorder when engaging in traditional HT. Also, the possibility of online HT is explored by understanding the potential roles of therapists and healing gardens.

### Theme:

- Healing gardens can be replaced by nature
- Multi-purpose platform
- Free healing environment would be better
- Be nervous about the therapy
- Irreplaceable emotional support
- Not convenient enough
- Positive psychological effects

### Discussion

- A low-pressure horticultural therapy for people with social anxiety that doesn't require offline social interaction.
- Designing horticultural therapy with a high degree of flexibility and freedom to improve accessibility.
- Provide a multi-functional horticultural therapy platform that integrates recreation, healing and learning.



### Evaluation

Task	Add plants to 'My Garden' list	Earn rewards by completing Weekly Tasks	View your personalised programme	View the data analysis of your therapy process	You want to know how much water you need to give Aloe today
Feeling adjective	Accomplished Confident	Accomplished Excited	Easy to access Excited	Confused Frustrated	Thoughtless
Comments	It's easy to find	It's not as easy and interesting as I thought	Clear function	What is the difference between a task report and the analysis?	I only the plant care interface was interesting
Insights/ Suggestions	/	It will be better to put a new reward interface.	/	Analysis needs to be more detailed, it needs a better view.	I suggest that when you click on a plant that you click on the plant care details page of the garden, it can go directly to the plant care details page in 'My Garden'.
Task	Add plants to 'My Garden' list	Earn rewards by completing Weekly Tasks	View your personalised programme	View the data analysis of your therapy process	You want to know how much water you need to give Aloe today
Feeling adjective	Accomplished Excited	Confused Excited	Easy to access Excited	Confused Frustrated	Thoughtless
Comments	The Garden is obvious, but I wonder what I can do to increase	I don't understand how 'Plant' and 'Task' can affect me, and which is interesting that justifies it.	Find this feature easy to find	Why not choose the 'Task report'?	I want to go back to 'My Garden' and click on the plant care details page of the garden, it can go directly to the plant care details page in 'My Garden'.
Insights/ Suggestions	The plant details list is a bit blurry	I think you should remove the 'Plant' icon because there will be the possibility of false records.	/	I suggest you switch the 'Task report' icon and 'Task report'.	I suggest setting a 'Completed' icon on the plant care details page of the garden, so that when you click on the plant care details page, it can go directly to the plant care details page in 'My Garden'.

### Conclusion & Future Work

In order to address the status quo of the traditional HT model for people with social anxiety disorder who have reduced willingness to participate due to a variety of reasons, we propose a combined online and offline HT model. The APP allows people with social anxiety disorder to complete the entire HT process of "Mental health assessment-Personalised plan-Planting instruction-Gamified tasks-Self-monitoring" in a self-directed and relaxed manner, rather than relying solely on a horticultural therapist and a healing garden.

Future research and continuous improvement are essential to better apply HT to the treatment of social anxiety disorder.

- **Long-term follow-up:** Better understand the durability and sustainability of this innovative HT model.
- **Explore the balance between online platform & offline activities:** Trying to add social interaction in offline activities to achieve better healing effects.
- **Promotion and training:** The APP requires the involvement of horticultural therapists, so training more therapists and promoting awareness of HT will also be important in the future.