



# Creating a Culturally Adapted Psychotherapy Toolkit

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## Abbreviations

Acceptance and Commitment Therapy (ACT)

American Psychiatric Association (APA)

Cognitive-behavioral therapies (CBT)

Dialectical Behavior Therapy (DBT)

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)

Intergenerational Trauma (IGT)

Post-traumatic stress disorder (PTSD)

Self-guided Psychotherapy Toolkit (SPT)

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## Introduction

The influence of Western philosophy, history, experiences, and language on the evolution of psychology has led to discourse about the suitability of conventional talk therapy for culturally diverse communities such as those in Asia or other diaspora contexts. Existing research shows that individuals from diaspora communities are often at a greater risk of experiencing depression, anxiety, and post-traumatic stress disorder (PTSD), with some suggesting an epigenetic foundation for intergenerational trauma (IGT) and susceptibility to depression (Nestler, 2015). However, cultural-specific symptoms and differing constructs of IGT and PTSD among non-western cultures challenge the universal application of Western psychological concepts (Hill, Lau, & Sue, 2010; Sanchez, Spector, & Cooper, 2006; Wong, Wong, & Lonner, 2006).

As conventional talk therapy may not always be the most fitting approach to addressing mental health concerns for immigrants and diaspora communities, exploring alternative self-care modules that are more culturally empowering and accessible can help to improve mental health outcomes for these communities. A person-centered approach allows patients to explore and address the ways in which their cultural and social identities impact their mental health, and a self-guided psychotherapy toolkit (SPT) would supply them with skills that they can use to be their own therapists. The healthcare industry is responding to the need for more patient-centered care and shifting from a traditional model that is reactive and centered around in-person consultations with doctors serving as intermediaries for patients, to a more proactive approach that is increasingly self-directed, digitally-enabled, and delivered remotely (Hwang and Christensen, 2008). A more frugal approach to health innovation may be needed to take into account resource constraints.

This dissertation examines a culturally adapted self-guided psychotherapy toolkit for patients. In Part I: Context Building and Part II: Co-design, we explore suitable self-guided psychotherapy modalities. An accessible toolkit tailored to specific cultural needs can reduce reliance on culturally competent therapists and provide a continuity of care that is not possible with the discharge experiences in the current health system.

# Background

## Overview

Conventional talk therapy has been the primary form of mental health treatment for decades, but it can be limited in its ability to navigate the interplay of salient social identities. The individual or universal view of the human condition and the view of disorders as similar across societies can lead to a lack of understanding of cultural nuances (Sue, D. W., & Sue, D., 2015). Furthermore, the historical development of talk therapy was based on clinical observations and investigations conducted primarily on affluent White individuals, mainly from the middle and upper classes (Ridley, 2005). This development has resulted in a lack of cultural competence among mental health practitioners, making it difficult for therapy to meet the needs of cultural minorities whose experiences and mental health have historically been understudied.

In present-day practice, Culturally adapted psychotherapy has been found to be effective for individuals from diverse cultural backgrounds, including historically disadvantaged groups (Griner & Smith, 2006). However, despite this recognition, many mental health practitioners still struggle with cultural competence. Conventional talk therapy may not meet the needs of cultural minorities, and the use of non-adapted or poorly adapted mental health treatments by government and social service organizations has led to widespread distrust in these populations (BigFoot & Schmidt, 2010). Moreover, conventional talk therapy often focuses on the individual experience of the patient, rather than acknowledging the impact of systemic issues, such as racism, sexism, and ableism, on their mental health. In the paragraphs below, we will explore both cultural and sociopolitical barriers to conventional talk therapy (Thurston & Phares, 2008).

## Cultural dimensions

When it comes to receiving care, the cultural values and beliefs of ethnic minorities may clash with the values in conventional psychotherapy (Lau, Fung, & Yung, 2010; Nagayama-Hall, 2001). Cultural dimensions, including stigma, language barriers, and cultural beliefs about mental illness, also present challenges for diaspora communities

in communicating their mental health concerns to healthcare professionals (Hovey & King, 1996; Portes & Rumbaut, 2006). Language barriers particularly limit immigrants' ability to self-disclose or express emotions, both of which are valued qualities in conventional talk therapy (Sue, D. W., & Sue, D., 2015). Children of immigrants facing language barriers may experience greater acculturative stress and intergenerational conflicts with their parents (Hovey & King, 1996; Portes & Rumbaut, 2006). Language barriers can also exacerbate intergenerational traumas, as younger generations who are not fluent in their ancestral language may have difficulty understanding the cultural context in which their elders' trauma occurred (Fortuna, Alegria, & Gao, 2010). Addressing this cultural complexity can be challenging in conventional talk therapy.

When it comes to delivering care, conventional therapy often overlooks cultural influences, spiritual practices, and other healing processes (S. Sue, Zane, Nagayama-Hall, & Berger, 2009). There are several reasons for this. Firstly, starting at the diagnosis stage, the DSM-5 has been criticized for its cultural limitations and biases (Aggarwal, Neil Krishan et al., 2013). Secondly, mental health symptoms and treatment preferences among immigrant and refugee populations are shaped by cultural nuances, and they often feel misunderstood and marginalized by mental health providers who are insensitive to their cultural background and values (Sue, D. W., & Sue, D., 2015). Thirdly, family systems therapy may not align with the values of many culturally diverse communities (McGoldrick et al., 2005). For example, in many diaspora communities, expressing emotions freely and openly is not considered healthy or encouraged (McGoldrick et al., 2005). The absence of cultural proficiency and knowledge of history among mental health providers can result in substantial impediments to providing care (Sue, D. W., & Sue, D., 2015).

### Sociopolitical dimensions

Financial barriers, historical trauma and present day discrimination can limit the ability of culturally diverse communities to access conventional talk therapy. Doescher et al. (2007) found that disparities in healthcare exist even among individuals with insurance coverage, and financial limitations can further exacerbate these disparities. Additionally, historical events such as war, conflict, and displacement can have long-term effects on the mental health and well-being of diaspora communities. However, patients may struggle to discuss the psychological impact of historical events and therapists may lack knowledge of the social contexts surrounding intergenerational trauma (Gone & Alcántara, 2007). Furthermore, existing research on the mental health of the Chinese diaspora has primarily focused on certain types of

trauma, such as natural disasters and war, while other forms of trauma, such as relational trauma and political oppression, have been largely neglected (Tang, 2007). Finally, the historical legacy of racial discrimination has also been linked to vulnerabilities in mental health, and marginalized communities continue to experience forms of oppression, resulting in feelings of exclusion and marginalization (Berry et al., 2016; Stop AAPI Hate, 2021). Understanding the link between the past and present can shed light on current-day mental health, vulnerability, and resilience, and this can be achieved through intergenerational and historical trauma research (Mohatt et al., 2014, p. 55).

### Patient preference of informal treatment

Due to cultural beliefs, sociopolitical factors, and other barriers accessing formal mental health services (Derr, 2016), individuals from marginalized groups tend to rely on more informal support systems (Chen et al., 2009; Mohatt et al., 2014). Some communities, such as American Indians and Hispanics, prioritize close friendships before discussing intimate aspects of life (Sue et al., 2015). Other diaspora communities, including Korean Americans and Chinese-Canadians, also face stigma and cultural barriers to seeking professional help for mental health concerns (Spencer et al., 2010; Sue et al., 2012). These groups have lower utilization rates, attend fewer therapy sessions, and discontinue therapy earlier compared to individuals from Western backgrounds (Fortuna et al., 2010; Lester et al., 2010).

### Placing the focus of research

The aim of this project is to delve into the essential research and design considerations that are needed to develop a SPT that is both culturally sensitive and therapeutic in addressing the mental health needs of diverse communities. Within counseling psychology, the integration of cultural and multicultural perspectives is widely recognized as a critical aspect of research and practice, known as the "fourth force" (Pedersen, 1991). A crucial component of creating a curative culturally adapted therapy is understanding how culture shapes individuals and communities, which encompasses various factors such as values, norms, behaviors, language, and history, transmitted through socialization and group institutions (Carter, 2007, p. 18). Through a range of collaborative and inclusive research and design methods, this project will investigate some of these factors.

# Methodology

## Epistemology

The research project takes on constructivist epistemology, which views knowledge creation and understanding as a collaborative process that is co-constructed socially by the researcher and the participants (Berger & Thomas, 1966). This perspective acknowledges that knowledge is not objective or fixed, but is instead shaped by the unique perspectives, experiences, and social contexts of both the researcher and the participants (Berger & Thomas, 1966).

## Research toolkit

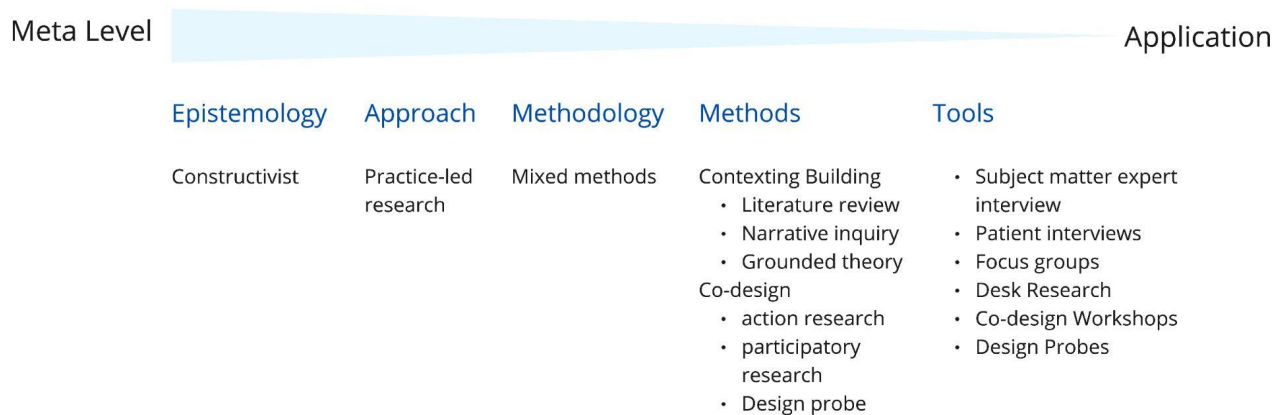


Figure 1: Research toolkit

## Approach

My practice-led approach pushed me to produce outputs or frameworks to guide outputs at the end of every research loop, and my background as a product designer and service designer drove me to consciously reflect on the design rationale behind all the tactical design decisions that were made throughout the process. My position as a design researcher also oscillated between an expert led mindset and a participant led mindset. Different perspectives drove the design research inquiry to seek innovative ways of understanding the interplay between culture and psychotherapy. Frayling's framework of 'researching for, through, and about design' was used as the primary approach (Frayling, 1993). Glanville's 'research as design' also provided insights to position the inquiry within and outside the system (Glanville, 1999).

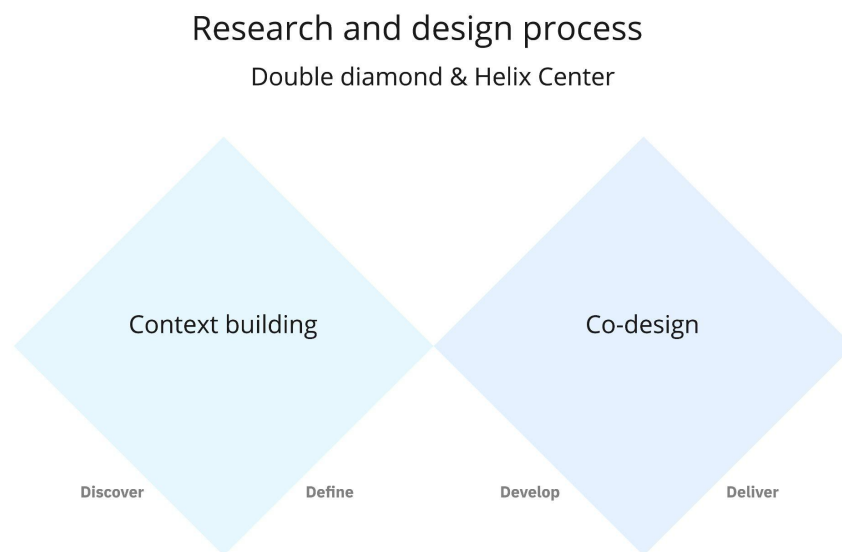


## Methodology, Methods, Tools

The methodology is a mix of various methods, including participatory research, action research, grounded theory and narrative inquiry. Participatory research is a methodology that involves a collaborative approach to research, aiming to involve the community in the research process (Foth & Axup, 2006). It can take place in the form of surveys, focus groups, interviews, and observations, depending on the research questions and participants' preferences. Grounded theory is both a method and a methodology, involving the systematic collection and analysis of data to generate a theory grounded in the data and providing a framework for conducting research based on the principles of symbolic interactionism (Glaser & Strauss, 1967). Narrative inquiry is an interdisciplinary approach to qualitative research, drawing upon various disciplines, such as psychology, sociology, and anthropology. It also encompasses various forms of narrative-based research, such as autoethnography and life story (Chase, 2005). Narrative inquiry rests on the idea that people generate meaning by narrating their experiences (Reissman, 2008).

## Design research process

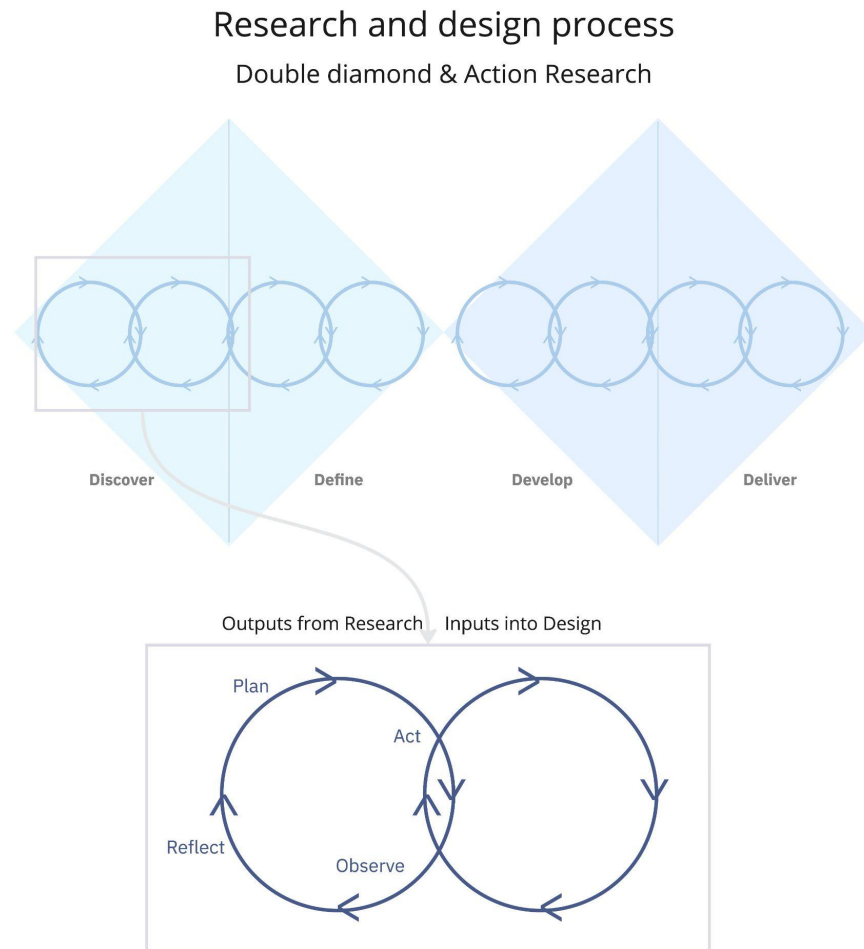
The iterative nature of both research and design processes is widely acknowledged. The conventional double diamond research plan emphasizes a sequential approach with distinct research and design phases, yet in practice, the process involves both research through design and design through research (Frayling, 1993). Drawing inspiration from the Helix Center's 'Context Building' and 'Co-design' design phases, I have incorporated these concepts into the double diamond diagram to reflect the symbiotic relationship between research and design (Helix Center, 2022).



*Figure 2: Research and design process 1*

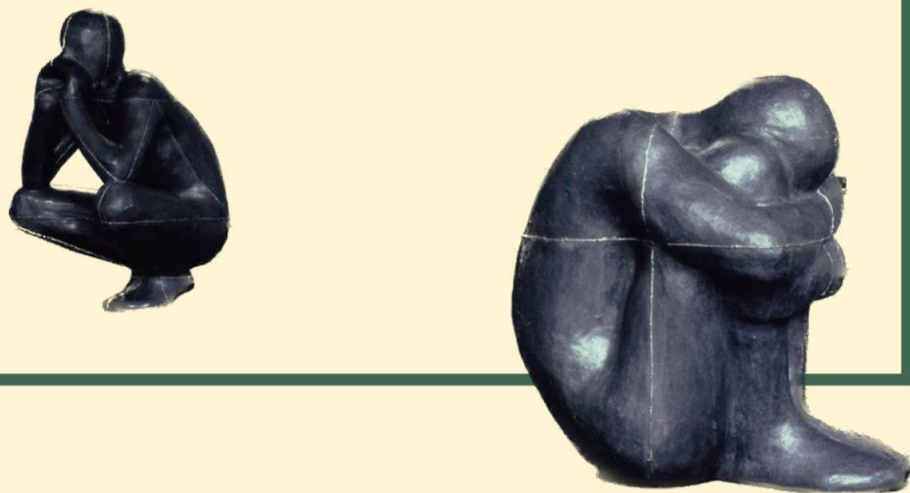
The project's research methods and design artifacts, including design probes, are underpinned by the dynamic and iterative principles of action research, which encompasses the fundamental stages of planning, acting, observing, and reflecting (Lewin, 1946). As frameworks, double diamond and action research are mutually reinforcing (Wan, 2022). Action research offers a circular approach that allows for ongoing refinement and iteration of objectives, while the Double Diamond Framework follows a linear trajectory, providing momentum towards achieving solutions (Lewin, 1946). In the Co-design part of the project, we will delve into how action research can progressively advance concepts through various stages in conjunction using design probes in the double diamond Framework.

The research methods and process allow for a more nuanced and context-specific understanding of the experiences of diaspora communities, and can help to inform the development of more culturally responsive therapeutic interventions.



*Figure 3: Research and design process 2, adapted from Wan 2022, Module 3 Essay MRes Healthcare and Design. © 2023 Charlotte Xueyi Wan. All rights reserved.*

## Part I: Context Building

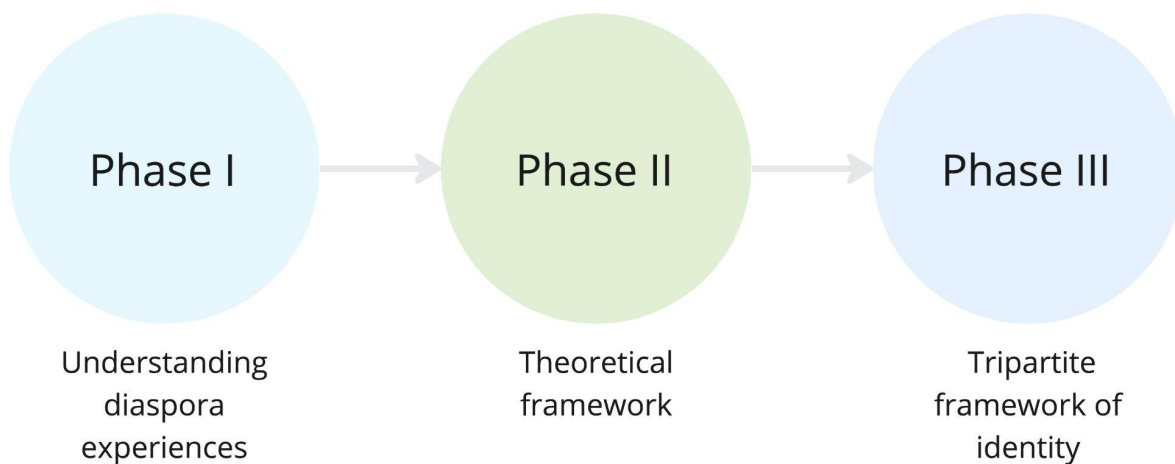


Cover page 2: *“Three Calls: Pass Cast and Plumb,”* 1983, a sculpture by Antony Gormley

# Part I: Context Building

## Introduction

The experiences of diaspora communities can be complex and multifaceted, with individuals facing a range of challenges related to cultural identity, social integration, and access to healthcare. In this section, we explore the hardships encountered by diaspora communities, particularly in relation to navigating the health system and accessing mental health support. We also examine alternative interventions that marginalized communities can explore to bypass significant obstacles associated with conventional talk therapy. Additionally, we consider the universal aspects of identity that transcend frameworks and cultural reference points, as well as the unique aspects of diaspora experiences that are specific to certain cultures.



*Figure 4: Context Building Phases*

## Phase I: Understanding stories of diaspora communities

### Research question

What hardships have the diaspora communities endured? What is important to them?

## Narrative Inquiry

Semi-structured interviews were conducted to gain a deeper understanding of the turmoil faced by marginalized communities as well as the most important aspects of their cultural identity. Seven participants from different cultural backgrounds participated with an age range of 27 to 32 years old including 5 women and 2 men. 2 of the participants are mental health professionals who acted as proxy for the diverse patients they work with. The Cultural Formulation Interview script by APA DSM-05 was used to stimulate conversations about cultural identity (see Appendices).

## Thematic Analysis: diaspora stories

The analysis investigates emergent themes through diaspora stories, which are presented using pseudonyms to maintain interview confidentiality. In addition to the interviews, the analysis also incorporates insights from existing literature to provide a broader context and theoretical framework for interpreting identified themes such as silence and disconnection, fear and discipline, as well preserving cultural heritage (Chou, 2013). The Co-design segment of the project examines the potential application of psychotherapy skills in relation to these themes.

### Immigration and survival

85% of participants reported challenging experiences related to displacement and migration. The psychiatrist reported that some of his clients are at risk for developing symptoms of depression, anxiety, or PTSD, and the risks are compounded by the additional stressors of relocating to Germany. The ongoing pandemic and reminders of war in Europe further exacerbated their vulnerability. Given these circumstances, layered understanding is crucial when interacting with individuals from this population. However, the psychiatrist encountered obstacles when discussing identity transformation and flourishing with patients due to their deep-seated apprehension and ambiguity about their future. These anxieties included concerns about securing basic necessities, providing for their families, and the possibility of deportation to their war-torn homelands. For many individuals, envisioning a future self means ensuring their immediate survival before being able to imagine a secure and empowered future self.

### Clash of cultural identity and individual identity

Among the participants, 71% indicated experiencing difficulties pertaining to cultural and personal identity. During the process of establishing novel values and a fresh

narrative, patients are frequently impeded by identity constraints, given that the majority of them place great value on history, cultural norms and familial opinions. The tension between personal self-expression and adherence to cultural identity may engender a sense of isolation and ambiguity within individuals.

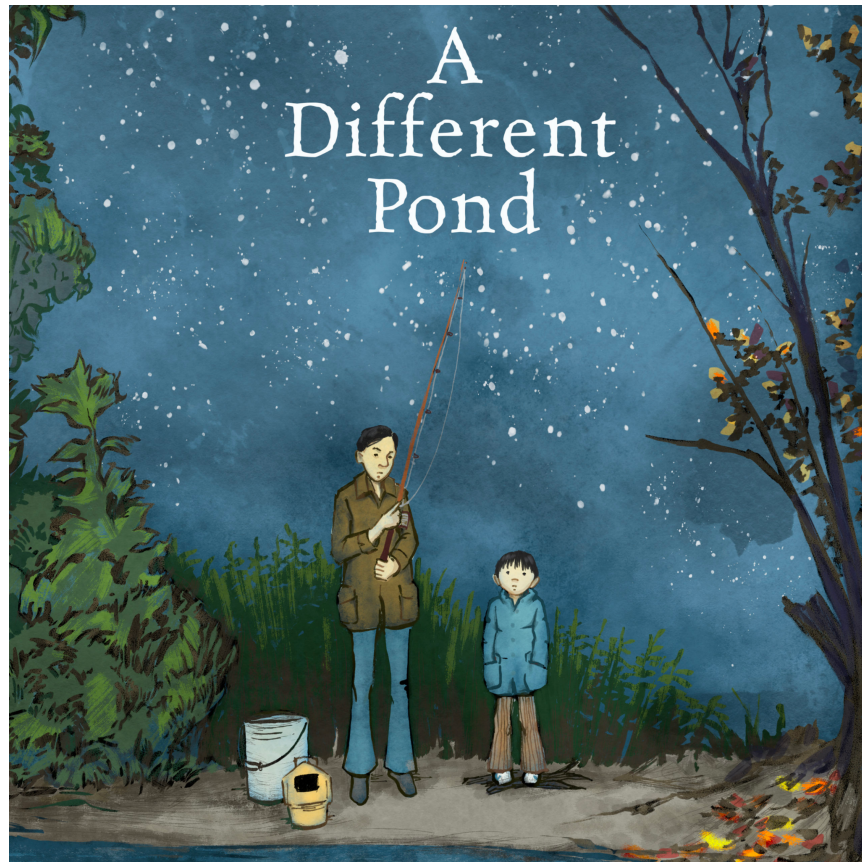


Figure 5: *A Different Pond*, book by Bao Phi, cover art by Thi Bui

#### Fear, discipline and perfectionism

Perfectionistic tendencies in adulthood were reported by 57% of the participants who indicated experiencing fear related to discipline during their childhood. A participant, referred to pseudonymously as Raya, is a young girl born to Chinese immigrant parents and raised in an environment that prioritized high-achievement. Under the weight of these expectations, Raya frequently experiences overwhelming anxiety when confronted with challenges. Her persistent pursuit of perfection fuels feelings of personal failure upon any misstep, pushed further by a fear of disappointing others. Unfortunately, the recent layoff from work has triggered negative thinking patterns and self-loathing habits in Raya, prompting a concerning spiral in her mental health.

### Silence and disconnection

57% of the participants experienced disconnection as a result of silence around past turmoils. Siqing is a second-generation Chinese-Canadian who grew up in a household where there was a lot of communicative silence, particularly around the family's historical past and heritage. Siqing always had a desire for emotional connection with her parents, but their indirect communication and passive-aggressive behavior often left her feeling frustrated and disconnected. She wished her parents would open up more and share their family stories and experiences, but they would often avoid discussing anything that could bring up shame or discomfort. Siqing's own experiences also left her feeling isolated. She had gone through a traumatic event a few years ago, but her family dismissed it and never wanted to discuss it again. She felt a lot of shame around her emotions and experiences, and the lack of understanding and acceptance led to further ruptures in her relationships with her family.

### Preserving and reclaiming heritage

All participants (100%) emphasized the importance of preserving and connecting to their cultural heritage in order to maintain a cohesive sense of identity. Participants identified various aspects of their heritage that held personal significance, ranging from cuisine to language to customs and traditions. For instance, one participant noted the importance of transmitting the language to their offspring to foster a deeper understanding and appreciation of their cultural identity. Another participant spoke to the significance of certain customs that conveyed expressions of love and respect. One thing that the psychiatrist underscored is the particular challenges faced by recent immigrants in preserving their cultural heritage while integrating into a new society. Immigrants often need to navigate the competing demands of assimilating to dominant culture while honoring their heritage, all at the same time grappling with the ways in which broader societal forces such as class, privilege, and race shaped their experiences.

### Personas

As an output from narrative inquiry, personas are created to encapsulate the needs and challenges faced by marginalized groups. The personas are fictitious characters that represent the unique characteristics, behaviors, and values of specific groups of individuals, and are often utilized in the design process to develop products or services tailored to their specific requirements. In addition to the features, the personas also



incorporate patients' attitudes and perceptions towards mental health, which further informs the design process. As a part of the development part of the design process, the appendices include the analysis of the market segment in order to develop a diffusion and go-to-market strategy for the newly created product or service. These two artifacts serve different purposes, and both are essential in order to create products or services that can be accessible.

The primary persona, Raya, is a new Chinese immigrant to Canada. After experiencing frequent heart palpitations and chest pain, Raya realized that her stress, anxiety, and depression contributed to the development of her somatic symptoms. She was recommended the SPT at her outpatient appointment as a part of mental health signposting. The secondary persona, Gueiga, is a young arabic girl who has completed her 6 week treatment program at the holistic healing center, and she receives the toolkit at her outpatient appointment as a part of mental health signposting. The toolkit has a curated list of psychotherapy skills she has learned, and she is prepared to adapt to her environment.



Persona & Scenario | Created by Charlotte Xueyi Wan

Primary Persona

\*Source: Chou F. Stories of Our Ancestors [dissertation]. Vancouver (BC): The University of British Columbia; 2019.

Figure 6: Primary Persona Raya



Client at Holistic Healing Center

# Gueiga

**Scenario:** Gueiga has completed her 6 week treatment program at the holistic healing center, and she receives the toolkit at her outpatient appointment as a part of mental health signposting. The toolkit has a curated list of psychotherapy skills she has learned, and she is prepared to adapt to her environment.

## Goals & Motivations

- Continue her work at the holistic therapy center and change old ways of thinking and reacting
- She wishes to transform her emotional pain and free herself from negative thinking and self-judgement
- Teach me how to catch my own fish - she wishes to feel confident to use the skills on her own

## Emotions

- Gueiga feels anxious about returning to her old environment and also frustrated about breaking out of a negative feedback loop that has become a comfort zone
- She is optimistic that she can maintain her mental health and wellbeing, even in the face of stressors and triggers.

## Challenges

- Adapt to the old environment with the same stressors and triggers
- It is difficult to get out of a negative feedback loop, which can be a comfort zone for patients\*
- The lack of a routine, tools or resources makes it hard for her to maintain her wellbeing\*

## Health & Environment

There are stressors that trigger old thought and behavior patterns, but she does not always know how to identify and apply the appropriate skills in different situations.

*"When I try to do something I used to enjoy like writing or playing the violin, I begin to feel depressed."*

Attitude about mental health

**Ready to explore therapies**

She as well as her close family are open to holistic approaches, and they are willing to make changes to the home environment to facilitate her healing.

Persona & Scenario | Created by Charlotte Xueyi Wan

**Secondary Persona**

\*Source: Clinician workshops and patient interviews

Figure 7: Secondary Persona Gueiga

## Phase II: Using Grounded Theory to Explore Therapy Pathways

### Research question

How can marginalized communities explore alternative interventions that bypass the significant obstacles associated with navigating the health system and barriers of conventional talk therapy?

### Objective

During the initial phase of the grounded theory, the primary goal was to attain a comprehensive understanding of the symptoms of depression, anxiety, intergenerational trauma (IGT), and post-traumatic stress disorder (PTSD) through both clinician interviews, patient interviews, and literature review, while also assessing how clinicians conceptualize problems and select an intervention. More in-depth discussions aimed to identify the rationale behind selecting a psychotherapy modality that speaks to the patient needs. Finally, the challenges of a self-guided model became a prominent topic of discussion with the psychiatrist, and we also explored how frequent practice of integrative therapy contributes to better clinical outcomes.



*Figure 8: Painting by Paul Gauguin: Where do we come from? What are we? Where are we going?  
1897–98, oil on canvas*

### Methods and findings

To achieve these objectives, grounded theory methodology was employed, utilizing various methods such as clinician and patient interviews, desk research, and triangulation of data during the coding process. These methods allowed for an open

and iterative approach to the data. As the study progressed, the research questions and hypotheses evolved and became more specific, allowing me to develop a more multidimensional understanding of what it means for patients to learn and practice psychotherapy skills on their own. This eventually led to developing a theoretical framework for creating a culturally adapted SPT.

### **Weekly informal clinician interviews and workshops**

The project's psychiatrist supervisor from the United Arab Emirates, who works in Germany with refugees from Syria, Iraq, and other countries affected by war and turmoil, provided insight during interviews and work sessions. A comprehensive review of the symptoms of depression and anxiety was conducted through more than 20 semi-structured interviews and workshops, aimed at achieving a thorough understanding of the subject matter. The weekly work sessions were conducted over a period of five months and featured the participation of a psychiatrist in weekly discussions, followed by supplementary desk research subsequent to each session.

#### Insights and quotes

- “Historical and present day traumas put these communities at a higher risk for developing depression, anxiety, and PTSD.”
- “The psycho-social-spiritual model is a holistic approach that involves the client actively in their healing journey. It can give them a sense of agency, but being in the driver seat can be intimidating.”
- “People who are considered successful might also feel that they are not connected to a larger purpose, and that gives them existential anxiety.”

### **Interview on cultural adaptations with trained volunteer**

3 interviews were conducted with a trained volunteer at the S.U.C.C.E.S.S. Foundation in Vancouver, British Columbia, Canada. The S.U.C.C.E.S.S. Foundation is a non-partisan and non-profit Canadian organization with a commitment to multiculturalism that has been dedicated to serving immigrants, seniors, youth, and families for 50 years. She has been volunteering at ‘HelpLines’ and supporting Mandarin and Cantonese-speaking individuals with confidential emotional assistance as well as connections to community resources that can assist them in resolving various life challenges. The interviews were conducted in person in Vancouver, BC.

[← Return to program](#)

## Help Lines

Led by trained volunteers, the help lines provide Mandarin and Cantonese-speaking callers with confidential emotional support and referrals to community resources that can support them to address a wide range of life issues.



Figure 9: Help Line page by S.U.C.C.E.S.S.

### Insights and quotes

- “I speak to many new immigrants who feel isolated in the country. They just want someone to talk to in a language they feel comfortable speaking, and they always feel more empowered after talking to me.”
- “Some of the people I speak to on the phone already have a (western) therapist, but they do not feel that their needs are being met. They also do not have the resources to receive talk therapy whenever they want.”
- “Being able to remain anonymous allows them to feel more at ease when they talk about their troubles.”

### SME interviews on DBT and ACT with a third wave CBT clinician

3 subject matter expert interviews via telehealth appointments were conducted with a DBT (Dialectical Behavior Therapy) and ACT (Acceptance and Commitment Therapy) clinician in Seattle, Washington, USA. The therapist obtained a Ph.D. in the department of Psychological and Brain Sciences at the University of Iowa and acquired extensive expertise in third-wave cognitive-behavioral therapies, including Acceptance and Commitment Therapy (ACT) and Dialectical Behavior Therapy (DBT). The interviews were critical in the process of selecting a psychotherapy modality and developing a theoretical framework.

## Quotes

- “In Western medicine, cancer care usually involves a medical oncologist for chemotherapy, a radiation oncologist, and a surgical oncologist for diagnosis. Although a naturopathic oncologist or functional nutritionist may have different approaches to treatment, they all work together in an integrated team towards a standard of care for cancer treatment. Typically there's sort of like a ‘right way to treat cancer’, which is the standard of care western approach.”
- “Unlike Western medicine, psychology doesn't have a standard way to treat a diagnosis like suicidality. With various psychotherapy modalities and theoretical assumptions, a therapist's conceptualization of the problem and their expertise determine the approach. Even within the behavioral world, a CBT, DBT, or ACT therapist has different approaches depending on their training and expertise.”
- “If we wanted to take a really complicated intervention, DBT is the one to go with because it requires a lot of different skills, it takes an intensive, extensive training to be a DBT clinician. That being said, there are some basic theories that are DBT specific, and one of them is the idea of dialectics.”

## Lived experiences patient interviews

In conjunction with clinician interviews, the study conducted 4 semi-structured interviews with 2 patients, of whom two experienced symptoms of depression and anxiety. One of the participants comes from a biracial Chinese and Jewish background, and she had been diagnosed with general anxiety disorder seven years prior to the study. The second patient, who is also a certified therapist, identifies as non-binary and had self-diagnosed as experiencing symptoms of depression.

## Insights and quotes

- “The depressive feelings come in waves, some waves last longer than others. When I push myself to do things but I don’t feel safe, I just feel exasperated.”
- “For me, it’s been helpful to identify the type of future I want to create and work through things as they come up along the way. If I follow where the pain takes me, I usually see the core problem.”
- “You know that you are practicing a psychotherapy skill when you experience things that used to bring you suffering, but then it does not anymore.”



## Coding

### Open coding part 1 and part 2

The open coding method typically used in grounded theory was modified using the insight generation framework developed by the Helix Center. To facilitate the data analysis process, a research studio workshop was conducted in collaboration with the psychiatrist supervisor of the study. During the workshop, the "we saw this" section of the framework was utilized to document observations with minimal evaluation. As the primary researcher, I documented the most compelling observations from patient and clinician interviews, while the participant captured the most salient themes from his clinical work. The "we know this" section of the framework was centered around both our experiences, intuition, and knowledge. We drew on our collective expertise to gain a deeper understanding of the defined problem. Once the interviews and workshops were completed, each segment of text was labeled with a descriptive code that captured the content. This modified open coding method enabled a more comprehensive analysis of the data, and collaboration with the psychiatrist allowed for a more comprehensive and multifaceted interpretation of the data.



Figure 10: Open Coding

### Focused coding

Building on the codes generated during the initial open coding stage, I used focused coding to identify the most relevant codes and group them into larger categories or themes, providing a more organized and streamlined approach to data analysis. Recognizing the potential limitations of solely relying on observational data, I sought to supplement this approach with an extensive review of existing literature. This additional step allowed for a more comprehensive understanding of the phenomenon under investigation and helped to illuminate potential blind spots in my knowledge. The findings gained from literature review (captured using yellow sticky notes) were





## Theoretical framework for Developing a Psychotherapy Toolkit

The theoretical framework focuses on developing a therapy pathway that addresses patient needs through non-talk therapy mediums and investigates challenges of a self-guided model. It has the potential to inform the creation of interventions for diverse populations. The subsequent phase will refine the framework by taking into consideration another important factor, the identity framework.

Theory 1: Insights-oriented therapy (IOT) and mindfulness are powerful tools for behavioral change.

Insights-oriented therapy in conjunction with mindfulness has emerged as a powerful combination for facilitating behavior change. Insights-oriented therapy aims to explore and uncover deep-rooted patterns and beliefs, while mindfulness cultivates non-judgmental awareness and acceptance of one's thoughts, emotions, and sensations. In this context, storytelling has been recognized as a valuable technique that enhances the learning process by providing diverse perspectives and enabling empathetic responses. When coupled with mindfulness practice, storytelling not only promotes understanding but also enables individuals to apply these insights to their everyday lives.

Person-centered therapy through mindfulness can be particularly optimal for individuals from cultures that value interdependence, collectivism, and communal support, as it allows them to take control of their own healing without being a burden to their communities and support networks. It also positions the patient to be the expert on their own experiences and to actively participate in their own healing process. Existing research has demonstrated the efficacy of self-guided interventions, such as internet-based therapy (Andersson, Carlbring, & Furmark, 2012; Fitzpatrick et al., 2017).

Mindfulness can be regarded as the cornerstone skill for psychotherapeutic practices, given its ability to facilitate self-awareness of one's thoughts and emotions. It enables patients to become aware of their own thought patterns and emotions and to better understand how they are reacting to and interacting with the world around them. In this way, it empowers patients to become their own therapists. While meditation is a prominent mindfulness technique, it can be challenging for some individuals to learn.

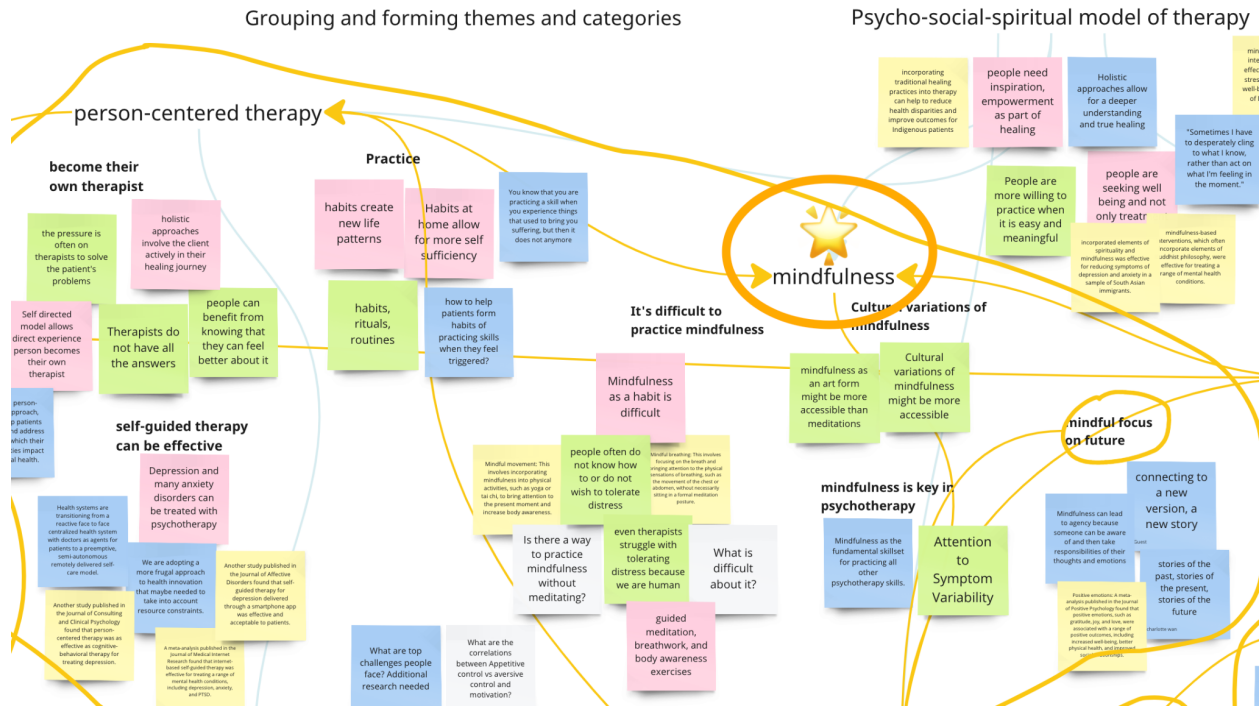


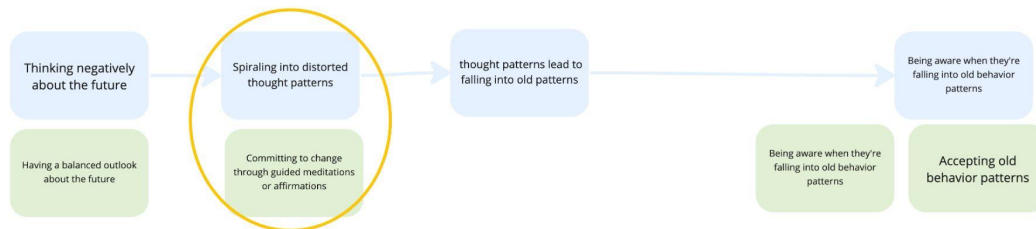
Figure 12: Mindfulness

With today's hectic lifestyles, there is a need for new methods to enhance guided meditations that are accessible and do not require advanced meditation skills. Innovative mindfulness techniques should be deployed, incorporating tools like visualizations and storytelling. Engaging experiences can make it easier to connect with their past, present, and future. Visualization techniques can be utilized to create a mental image of a desired outcome or a new version of oneself, which can instill a sense of empowerment and motivation to achieve goals. Storytelling can also be a powerful tool in encouraging individuals to imagine various possibilities for their future. In the present moment, mindfulness techniques such as focusing on symptom variability can help people become more aware of their thoughts, feelings, and physical sensations. This is particularly useful when dealing with emotional distress since mindfulness can help individuals observe their symptoms without judgment, ultimately decreasing the intensity of their emotions. For instance, mindfulness without meditation has been shown to enhance the pregnancy experience for both the mother and fetus (Zilcha-Mano and Langer, 2016). Using the principles of experience design, interactive meditations can assist individuals in processing their past experiences by exploring their memories and emotions within a safe and supportive environment.

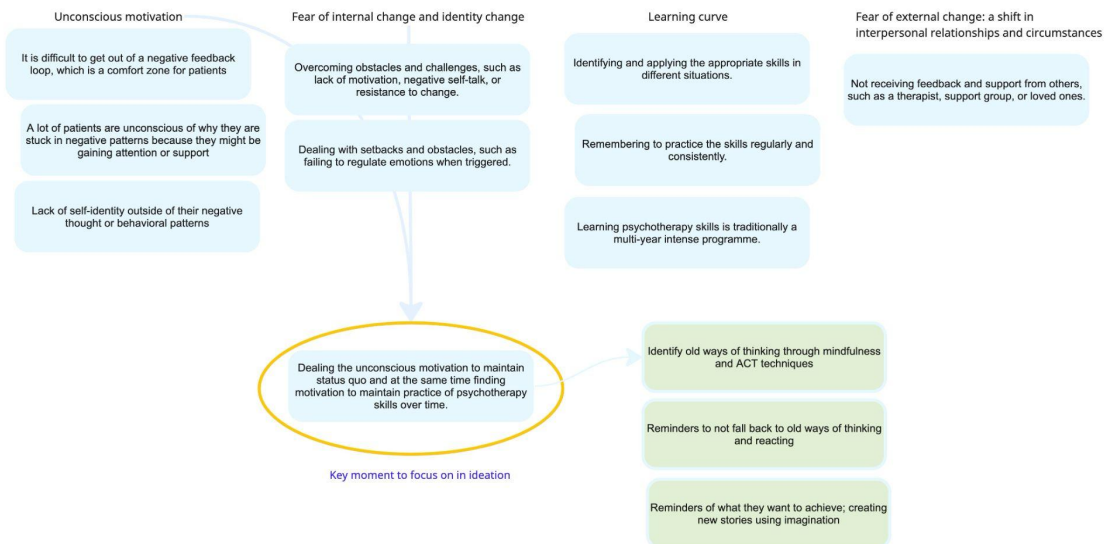
## Theory 2: Challenges of a self-guided model

During patient interviews, a prominent theme that emerged was the difficulty patients faced in implementing psychotherapy skills independently. This can be attributed to the intention behavior gap (Gollwitzer, 2009), as we learned in the behavior science module. According to the research, intention is only moderately predictive of behavior and accounts for a variance of approximately 3-28% (Webb and Sheeran 2006). In some cases, despite receiving persuasive information, intentions remained unchanged (Webb and Sheeran 2006). Working collaboratively with clinicians, we developed an *emotion map* and utilized the *COM-B Model* (Capability, Opportunity, Motivation - Behaviour) to identify the primary obstacles patients face when engaging in self-guided therapy and to determine strategies to overcome them (Michie et al., 2011).

**Emotion Map: Falling into old thought and behavior patterns**



**Main challenges of self-guided therapy**



*Figure 13: Emotion map and main challenges of self-guided therapy*

The emotion map exercise helped us understand the emotional journey patients experience when falling into old thought and behavior skills patterns. We identified four stages: (1) negative thoughts about the future, (2) distorted thought patterns, (3) falling

into old patterns, and (4) awareness when falling into old patterns. We identified underlying psychological processes that contribute to the problem, including unconscious motivation, fear of internal and identity change, fear of the learning curve, and fear of external change. Becoming aware of unconscious thought patterns is crucial in breaking the negative feedback loop that patients find themselves in.



Figure 14: COMB Model

### Theory 3: Therapy modalities to tackle the barriers

After examining the barriers that patients face while practicing psychotherapy skills, it is essential to ensure that the target behavior is clear to the end-users (Fogg, 2002). To achieve this, we utilized the AACTT Framework (Action, Actor, Context, Target, Time) to specify the target behavior and the COM-B Model to examine predictors of the desired behavior (Presseau, 2019).

- Action: Falling into old thought and behavior patterns after discharge
- Actor: People of color communities with mild to medium anxiety and depression
- Context: In an environment where triggers are present; limited access to therapy
- Target group: People of color communities with mild to medium anxiety and depression
- Time: Any time the patient spiraling into distorted thought patterns

The clinician and I collaboratively identified the desired behavior: choosing to do things that align with personal values. This behavior will leverage the enablers of personal agency and hope to overcome obstacles. Having a positive outlook towards the future

can motivate individuals to persist in achieving their goals. Incorporating values clarification, a crucial element of ACT, is necessary for the SPT intervention. Values serve as a guide for decision-making and behavior, even when difficult thoughts or emotions arise (Harris, 2022).

Upon examining the psychological processes that hinder patients' ability to engage in psychotherapy, we pinpointed three therapeutic approaches, namely CBT, DBT and ACT that can address these challenges and identified a specific behavior to target for behavioral change.

A common theme is present in all the mental barriers: the need for validation and change. This theme aligns with the dialectic central to dialectical behavior therapy (DBT) that emphasizes the importance of self-acceptance and striving for change (Linehan, 2014). DBT recognizes that individuals need validation, which involves accepting their experiences, feelings, and perspectives without judgment. To overcome emotional dysregulation and develop more adaptive coping skills, DBT also acknowledges the need for change. Opposite action, a DBT technique, encourages individuals to behave contrary to their current emotional state to validate their emotions while taking steps towards change and developing adaptive coping skills (Linehan, 2014).

In Acceptance and Commitment Therapy (ACT), the choice point technique helps individuals make choices consistent with their values and overcome the fear of change (Harris, 2022). By practicing mindfulness and examining thoughts and emotions, individuals can activate the reflective system and cultivate a sense of agency. The choice point is the moment when individuals can choose between a behavior consistent with their values or one consistent with their fears. It is estimated that 95% of our daily decisions are not reflected upon (Caraban et al., 2019). Mindfulness enhances the functioning of the reflective system and enables individuals to manage their thoughts, emotions, and subsequent behavior, leading to a positive change in their circumstances (Stanovich & West, 2000).

In conclusion, the psychotherapeutic approaches would entail a blend of DBT, CBT and ACT techniques. Firstly, DBT and CBT are utilized as instruments of insight-generation to identify and confront challenging and rigid beliefs that may be causing distress. Subsequently, ACT techniques are implemented to cultivate new

values and ways of thinking, taking into account the cultural background of the individual.

As cultural values may conflict with personal desires, leading to cognitive dissonance, we must provide culturally sensitive tools and strategies that explore the impact of cultural values on the individual's beliefs and behaviors and guide them to integrate personal values in a manner that is authentic and respectful of cultural traditions.

## Phase III: The Positionality of the Psychotherapy Toolkit

### Research question

What aspects of the identity are universal, which transcends frameworks and cultural reference points? What aspects of diaspora experiences are unique to specific cultures?

### A culturally-specific approach

The SPT underscores the patient's expertise in their own experiences. To contextualize these experiences fully, it's necessary to consider two viewpoints: the universal etic perspective and the culturally specific emic perspective (Sue, D. W., & Sue, D., 2015). Traditional Western psychology assumes that mental disorders are culturally universal, but multicultural psychologists dispute this and emphasize the influence of lifestyles, cultural values, and worldviews (Arnett, 2009; Howard, 1992; Suzuki, Kugler, & Aguiar, 2005). The SPT would prioritize a culturally-specific approach.

### Intersectionality

To ensure a more systematic understanding of identity, it is also important to consider intersectionality and acknowledge the interconnectedness of social identities, including gender, class, sexual orientation, and ability. The tripartite framework of identity can be helpful in uncovering the multiple dimensions of identity (D. W. Sue, 2001). While designing a toolkit, it is important to keep in mind the constantly changing external landscape and situational factors.

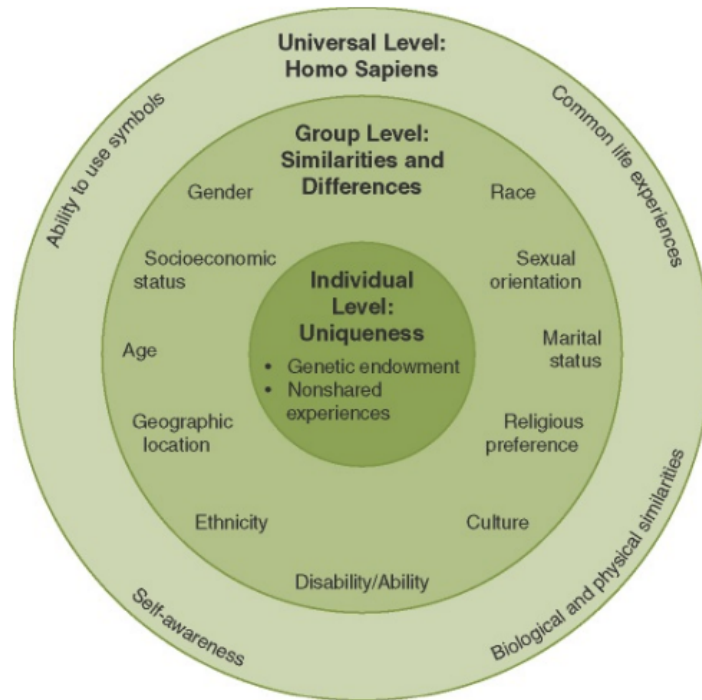


Figure 15: Adapted from *Counseling the Culturally Diverse*, Book by David Sue and Derald Wing Sue, 7th Edition, 2015

Psychology has traditionally emphasized either the individual or universal levels of identity, with less emphasis on the group level (Sue, D. W., & Sue, D., 2015). Empirical studies suggest that each group may hold a different perspective on the nature of reality, and clinical case studies suggest that different groups may also view *cultural competence* differently than Euro-Americans (Fraga et al., 2002). Existing literature defines *cultural competence* as (D. W. Sue & Torino, 2005):

*Multicultural counseling and therapy can be defined as both a helping role and a process that uses modalities and defines goals consistent with the life experiences and cultural values of clients; recognizes client identities to include individual, group, and universal dimensions; advocates the use of universal and culture-specific strategies and roles in the healing process; and balances the importance of individualism and collectivism in the assessment, diagnosis, and treatment of client and client systems (D. W. Sue & Torino, 2005).*



## Considerations for Design Outcomes

The SPT should be designed to accommodate the group-level identity and customize user interactions based on the intersection of culture and other dimensions of intersectionality. For the culturally adapted SPT to be holistic, it should aim to understand the impact of group level identities on psychotherapy. It has been noted that achieving complete cultural competence is nearly impossible (Sue, D. W., & Sue, D., 2015). However, attributes such as openness to diversity and cultural humility are believed to be beneficial in multicultural counseling (Gallardo, 2014). The toolkit needs to strike a balance between giving voice to diverse minority groups and demonstrating cultural humility.

Extensive research is necessary to achieve a culturally appropriate SPT that demonstrates ethnographic comprehension and familiarity with diverse populations. The research objectives should focus on understanding the characteristics, strengths, resilience, and unique challenges of each marginalized racial/ethnic group. To accomplish this, a separate volume should be created for each group, including African Americans, Native Americans, Asian Americans and Pacific Islanders, Latinas/os, and multiracial individuals (Sue, D. W., & Sue, D., 2015). However, these research objectives are a significant undertaking that may exceed the scope of this dissertation. In developing a culturally responsive SPT, artificial intelligence (AI) can be an opportune collaborator in storytelling, allowing for the consideration of various permutations of social and cultural identities.

## Part II: Co-design



*Cover page 3 on Part II: Co-design: "Standing Ground," 1986, a sculpture by Antony Gormley*

# Part II: Co-design

## Phase I: Designing a therapy pathway

### Research questions

What are the selected therapies? What is the rationale behind the structuring and the ordering?

### Psychotherapy Storybook: Scenario & Attitude Matrix 3

Past vs Future; Internal vs External

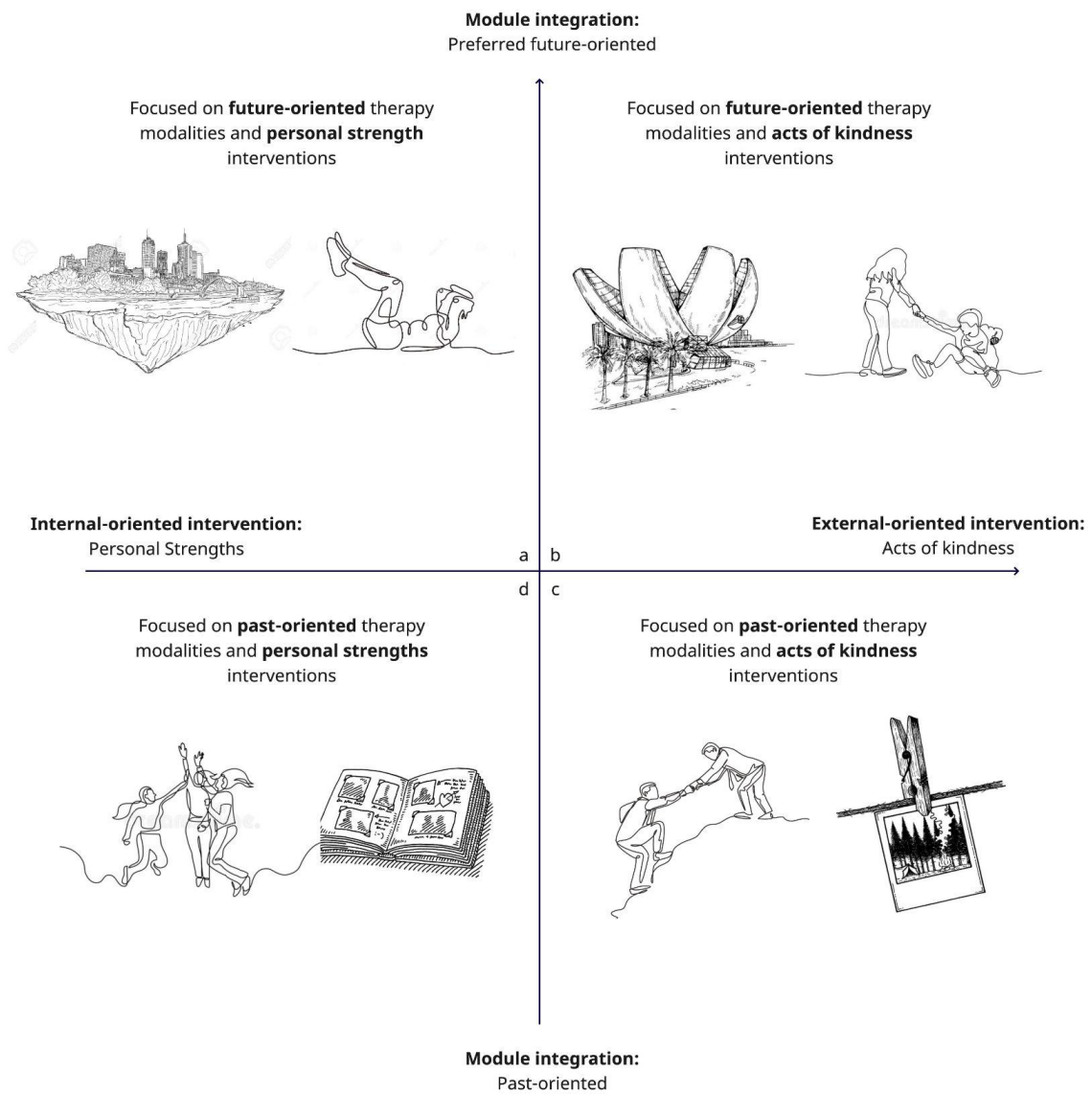


Figure 16: Scenario Matrix

## Scenario Matrix as a Design Probe

### Objective

In recent literature, the efficacy of future vs. past and external vs. internal oriented approaches in psychological interventions has been a contentious issue. The present study aimed to investigate which approach would be more salient to participants from multiple minority groups. In order to further understand patient preferences and the different dimensions of a therapy pathway, *Scenario Matrix* was utilized as a design probe in 2 semi-structured focus groups and 4 informal interviews (see *figure above*). The co-design activity in this study involved a total of 21 participants, ranging in age from 19 to 38 years old. These participants were selected from various minority groups, including Asian Americans, Jewish, South Asians, Chinese Canadians, Biracial individuals, and Caribbeans. The activity aims to provide a better understanding of the factors that contribute to patients' selection of a particular approach, which could inform a tailored SPT.

### Method

A scenario matrix, which is a four-dimensional framework, was used as a design probe during semi-structured interviews. The x-axis of the matrix explored the dimensions of internally or externally oriented interventions, specifically personal strength or acts of kindness. The participants were invited to select a therapy modality that they consider the most relevant, and their preferences and thoughts were explored through the Scenario Matrix exercise. The y-axis of the matrix explored the dimensions of past or future oriented interventions. By mapping patient preferences onto these dimensions, the study aimed to gain a deeper understanding of the different dimensions of therapy pathways that could be used to inform the development of a SPT.

### Results

Results of this study indicate that Scenario A, which featured future-oriented therapy modalities and personal strength interventions, was the most commonly selected option, with 42% of participants choosing this scenario. The second most frequently selected scenario was Scenario D, which featured past-oriented therapy modalities and personal strengths interventions, with 33% of participants selecting this option. Scenario B, which featured future-oriented therapy modalities and acts of kindness interventions, was chosen by 14% of participants. Lastly, Scenario C, which featured past-oriented therapy modalities and acts of kindness interventions, was selected by only 9% of participants. These findings highlight the preference for future-oriented

therapy modalities and personal strength interventions among the study's participants, while also suggesting the importance of considering past-oriented therapy modalities and personal strengths interventions in the design process.

Scenario Matrix: Past vs Future; Internal vs External

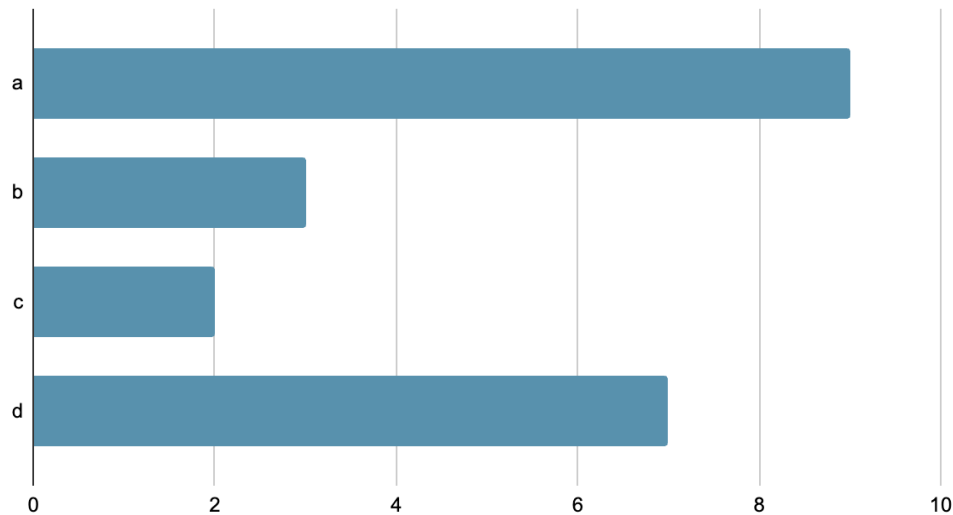


Figure 17: Scenario Matrix Results

## Discussion

The numerical results of the co-design activity presented in this study provide valuable insights into the preferences of participants regarding different dimensions of psychotherapy. However, it is important to note that these numbers do not represent the entirety of what the participants valued in psychotherapy. The open-ended nature of the scenario matrix allowed for variations in interpretation among participants, depending on their personal relationship with the concepts of "personal strength" and "acts of kindness." For instance, some participants interpreted the "external-oriented intervention: acts of kindness" dimension as emphasizing interpersonal relationships over internal attributes. Quotes from the participants are included below in order to account for individual variations in participant interpretation and cultural context.

These findings are consistent with previous literature, which suggests that it is in various Asian cultures to prioritize the needs and expectations of others before their own. These cultural nuances have significant implications for the development of culturally sensitive psychotherapy interventions. Considering culture-bound values is not limited to just individualism and collectivism, but extends to other values as well.

Traditional psychotherapy counseling practice frequently emphasizes the significance of objectivity, logical reasoning, and problem solving in seeking to emulate the natural sciences, which prioritize the identification and resolution of issues (Sue, D. W., & Sue, D., 2015). However, this approach may make it more challenging for culturally diverse individuals to openly discuss emotions and poignant matters with a healthcare professional. An overemphasis on logical reasoning may be viewed as cold, impersonal, and even disrespectful in some Asian cultures, where building relationships and fostering emotional connections is highly valued. For instance, in Korean and Chinese cultures, there is often a strong emphasis on collectivism, interdependence, and social harmony. The terms, 정 and 情, respectively, highlight the importance of interpersonal relationships. The Latina/o notion of *personalismo* also prioritizes relationships over tasks, reflecting a similar foundational concept (Sue, D. W., & Sue, D., 2015). The task-oriented approach in conventional talk therapy may not work well with these cultural nuances. Thus, it would be important to incorporate the importance of interpersonal relationships into the SPT. Storytelling can be a powerful way to convey these cultural values, and it can give voice to minority communities in a way that feels more comfortable and familiar to them.

Quotes by scenario

**Scenario A: future-oriented & personal strength**

Participant 3: “It’s more productive to focus on the future. I can’t change my past, but I can shape my future.”

Participant 15: “The past is in the past, and I chose personal strengths instead of external interventions because my growth is in my control.”

**Scenario D: past-oriented & personal strength**

Participant 8: “By understanding my past accomplishments, I can apply them to the future. The way we love and treat others has a lot to do with my asian upbringing and my relationship to my parents, and it is valuable to understand why I do certain things.”

Participant 9: “I’ve always been more past-oriented because I grew up Asian (laughs). I always thought about the struggles my immigrant parents had, and I always felt like I had a responsibility to go down certain paths to make their struggles worth it. Acts of kindness is mandatory for me, but it takes more time and effort to think about what I can work on for myself.”

Participant 6: “It is not always easy to understand the ways I can develop myself more. I had a pretty severe depression, and that’s why I think it’s important to understand the past, because that drives me to move towards the future.”

***Scenario B: future-oriented & acts of kindness***

Participant 12: “I’m healing the most when I focus on the future. And when you have depression, it’s easier to be kind to others than to yourself.”

Participant 20: “Acts of kindness cultivates a sense of self-compassion for me because I feel good about myself when I am kind to others.”

***Scenario C: past-oriented & acts of kindness***

Participant 18: “Past-oriented therapy that focuses on my upbringing explains the way I approach conflicts now. My approach to problems is very avoidant because growing up I was used to putting the needs of others before my own.”

Participant 17: “My relationships with my family shaped a lot of who I am today. I am very extrinsically motivated, and I feel better when other people tell me I am doing well. I do want to be focused on personal strengths in the long run because it would be better to motivate yourself than to rely on other people’s encouragement.”

## Revisiting CBT & Third Wave CBTs

Cognitive-behavioral therapies (CBT) has been the dominant form of psychotherapy worldwide since the 1960s, due to their cost-effectiveness in treating a range of mental disorders (Mavranouzouli et al., 2015; Pompoli et al., 2016; Skapinakis et al., 2016). While CBT has been successful in many ways, there are still some issues that need to be addressed (Hayes, 2004a). One issue is that CBT's efficacy varies for different conditions and sometimes the effects are only modest, indicating that the underlying model may not be strong enough or there may be limitations in its application (Cuijpers et al., 2013). Another issue is that the cognitive mediators that CBT relies on often fail to explain the results of the therapy, which raises doubts about the therapy's intended goals (David & Montgomery, 2011). Additionally, there are some new philosophical ideas that suggest that the mechanistic assumptions of CBT may not be the best way to approach therapy, and that a more contextual, non-mechanistic and evolutionarily consistent model may be more congruent with the needs of diverse groups (Hayes,

2004). In accordance with a biomedical model, second-wave psychological therapies are characterized by their symptom-focused approach, as outlined by Pérez-Alvarez (2012).

Third-wave therapies, on the other hand, deviate from this paradigm by highlighting the interactive, functional, and contextual nature of psychological difficulties (Kahl, Winter, & Scweiger, 2012). Third-wave CBTs are better choices for a self-guided therapy pathway because they propose that a person's mental health issues arise from their interaction with both internal and external factors. This viewpoint aligns with the socially oriented focus of culturally tailored models. Third-wave CBTs, such as DBT and ACT, are more suitable for cultural adaptations due to their contextual nature and their emphasis on mindfulness - a concept familiar to many minority cultures and traditional, alternative healing techniques.

### Game design and primary therapy modality

Continuous discovery work sessions and interviews with clinicians were conducted as a part of grounded theory. Moreover, patient preferences were examined through both the scenario matrix and the focus groups discussions. As such, essential knowledge has been obtained for selecting a therapy modality as the basis for developing a game that illustrates the process of decision making and choice. The therapy modality of choice is Acceptance and Commitment Therapy (ACT) as it is future oriented while also teaching easy-to-follow techniques to process the present and the past. The efficacy of a futures focused approach in therapy will be evaluated throughout the co-design part of the study. There is a considerable body of literature indicating that ACT can be implemented in self-directed formats, like Dr. Harris' book "The Happiness Trap," authored by an ACT clinician.

In an effort to evaluate the efficacy of third wave therapies, Dimidjian et al. (2016) conducted a systematic search for meta-analytic studies. Findings indicated that ACT demonstrated superiority to a variety of control conditions, thereby substantiating its effectiveness as a treatment modality (Dimidjian et al., 2016). The contextual model of ACT emphasizes experiential avoidance reduction, present moment engagement, acceptance, openness, and value-based behaviors (Hayes, 2004). These values, as opposed to mere symptom reduction, are consistent with the project's underlying theoretical framework, making it an ideal psychotherapy modality as foundation of the psychotherapy pathway.



Other evidence based therapies have been considered as well. Dialectical Behavior Therapy (DBT), for instance, is not suitable for a self-guided pathway as it is deemed challenging and potentially futile for patients to acquire and engage in DBT practices on their own. According to the third-wave CBT practitioner interviewed for this study, DBT is an extensive program that requires a year of intensive training. While it is difficult to implement DBT in a self-guided program, it is beneficial to include the constructivist, philosophical components of DBT. It combines elements of cognitive-behavioral therapy and Eastern concepts of mindfulness and meditative practices. The philosophy of DBT includes the concept of dialectics and refers to the ability to hold seemingly contradictory ideas or experiences simultaneously (Linehan, 2014). It involves accepting and validating different perspectives while seeking a synthesis or integration of seemingly contradictory ideas, which can be useful to help marginalized people to navigate systemic factors while actively taking steps towards creating a preferable future.

## Phase II: Creating the Culturally Adapted Therapy Wheel

### Hero's Journey as a design tool in culturally adapted therapy

Incorporating storytelling into the design of the SPT can give it cultural relevance, while also providing a means for marginalized communities to represent their stories and be heard. In the field of design, storytelling has emerged as a key element of persuasive design strategies (Lupton, 2017). By sharing anecdotes about people who face similar challenges, the storyteller can plant seeds of inspiration in the mind of the listener, leading them to consider new possibilities for themselves. In contrast, when one simply tells another what to do, the desired impact is often not achieved.

The SPT operates under the premise that patients are the ultimate authorities on their own experiences and must be empowered to play an active role in their own journey towards healing. As such, patients should have the freedom to reach their own conclusions about which psychotherapy skills they wish to learn and when they want to practice. The Hero's Journey is selected as the design method and as rationale behind the structuring and the ordering of the selected therapy modalities. From a social equity view, it also serves as a tool for counter-storytelling (Solórzano and Yosso, 2002). Counter-storytelling allows individuals and communities to challenge assumptions, biases, and dominant narratives, as well as to create alternative narratives that are more inclusive and representative of the diverse experiences of the marginalized, oppressed groups (Solórzano and Yosso, 2002).

The Hero's Journey was popularized by the American scholar and mythologist Joseph Campbell from the "myth and symbol school" of comparative mythology (Campbell, 1949). Other notable thinkers in this school include Carl Jung, who created the concepts "personal unconscious" and "collective unconscious" (Jung, 1933). They noticed that myths of different cultures throughout history many of them shared fundamental similarities in theme, structure, and symbolism (Campbell, 1949; Jung, 1933). According to Campbell (1949), "...we encounter the dull case of the call unanswered; for it is always possible to turn the ear to other interests. Refusal of the summons converts the adventure into its negative. Walled in boredom, hard work, or 'culture,' the subject loses the power of significant affirmative action and becomes a victim to be saved."



Figure 18: Menna and Family Hunting in the Marshes, Tomb of Menna, 14th Century BCE

Although the "call unanswered" is a crucial aspect of the hero's journey, Joseph Campbell did not address the complexities that marginalized communities encounter when striving to adhere to their cultural norms while forging their own paths. Stories are cultural. The push and pull between individual values and cultural expectations poses a unique and intricate challenge for these communities. Culturally diverse people are not simply "walled in culture" as Campbell mentioned; they often oscillate between the realms of collectivism and individuality. In addition, between "personal unconscious" and "collective unconscious," Jungian psychology also undermines the significance of the cultural unconscious. This neglect of group identity in psychology has historical roots due to sociopolitical and normative reasons (Sue, D. W., & Sue, D., 2015). Systemic issues around race, gender, sexual orientation, and disability are often seen as contentious as they expose problems of oppression and personal biases (Lo, 2010). Additionally, racial and ethnic differences have been pathologized, perpetuating the view that views and behaviors different from the dominant culture are abnormal (Guthrie, 1997; Parham et al., 2011).

Therefore, it is essential that the psychotherapy storybook acknowledges the multiple dimensions of diaspora identities, including individual, group, and universal unconscious levels (Sue, 2001). Social science narratives often utilize deficit-based models to explain cultural differences (Solorzano & Yosso, 2002). By centering the

voices and experiences of people of color, counter-storytelling provides a means for marginalized communities to reclaim their narratives and assert their agency (Solorzano & Yosso, 2002). Through storytelling and imagery, it is my hope that marginalized communities can reclaim their cultural heritage and find solace in the shared experiences and resonant themes.



Figure 19: *Havoc in Heaven* (大闹天宫), 1961 film adaptation of *Journey to the West* (西遊記)

### Culturally Adapted Therapy Wheel

The Culturally Adapted Therapy Wheel is an intervention that guides the development of the end product, which may take the form of story books or games. The research project aimed to create a framework for creating therapy storybooks that cater to the needs of marginalized ethnic groups, including African Americans, Native Americans, Asian Americans and Pacific Islanders, Latinas/os, and multiracial individuals. The multiple dimensions of positionality demonstrated the importance of creating culturally specific therapy storybooks that are accessible and relevant to each diaspora group.



## Hero's Journey: Culturally Adapted Psychotherapy Wheel

Created by: Charlotte Xueyi Wan, 03/31/2023

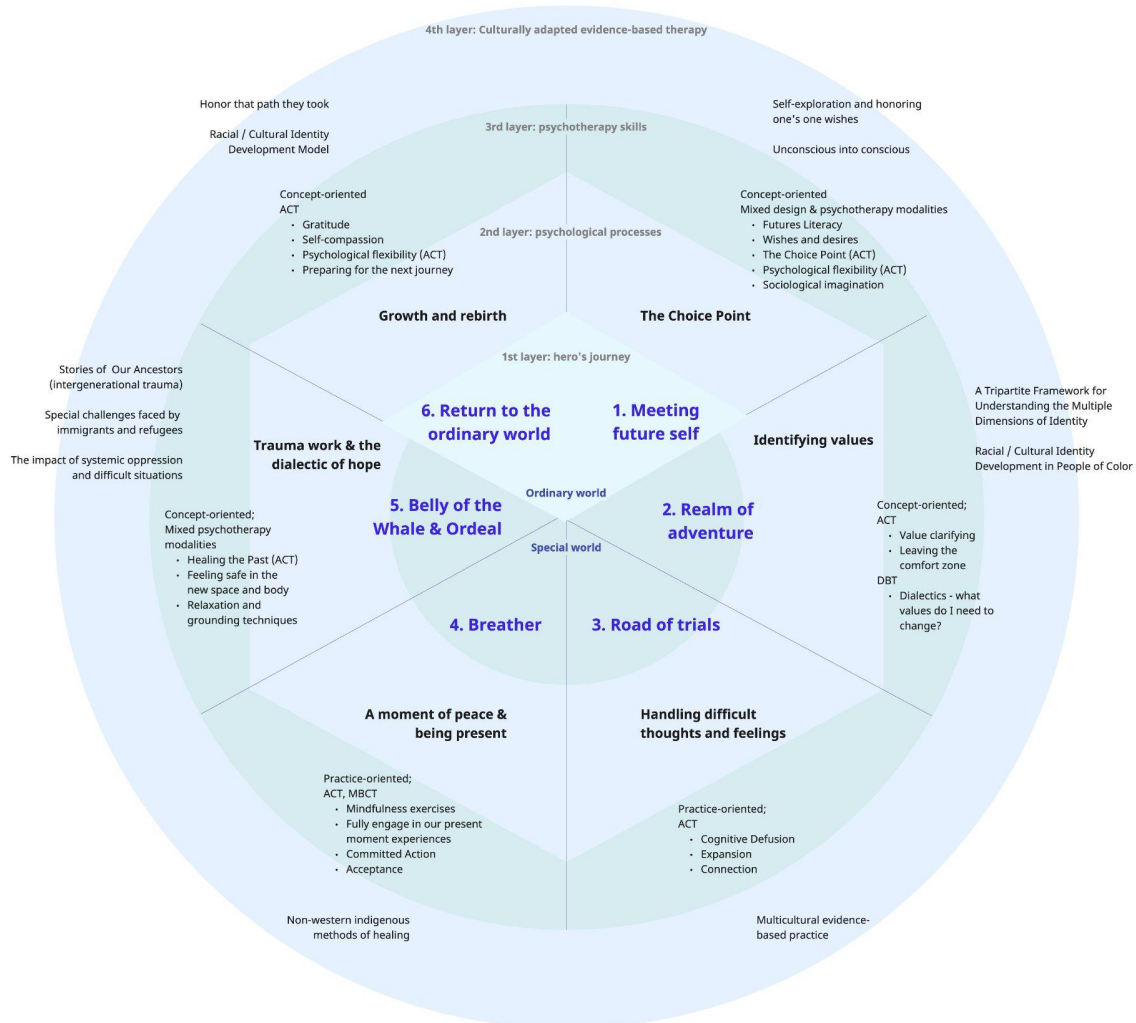


Figure 20: Culturally Adapted Therapy Wheel. © 2023 Charlotte Xueyi Wan. All rights reserved.

With that in mind, this iteration of the SPT will be tailored to the cultural context of the international Chinese diaspora, with a specific focus on Chinese Americans and Chinese Canadians, who represent the predominant demographic in the sample population.

This four-layered framework guides the creation of self-guided therapy story books or games. The first layer involves six phases of the hero's journey. The second layer encapsulates the psychological processes underlying each journey phase. The third

layer covers third-wave psychotherapy skills that patients can learn and practice at their own pace. The fourth layer includes culturally-specific considerations. The circular design indicates the cyclical nature of the hero's journey, where the end of a journey would mean the beginning of another.

In the previous sections of the project, the process of creating the therapy wheel was outlined in a layer-by-layer manner. At this point in the process, however, the focus shifts towards the themes developed during Context Building and their relation to the hero's journey. The potential application of psychotherapy skills in relation to the themes are explored and developed through a series of phases in the hero's journey: meet future self, realm of adventure, road of trials, breather, belly of the whale, and return to the ordinary. Please see the appendices for journey phases and specific therapeutic applications.

## Phase III: Designing a game

### Research questions

How can storytelling and gameplay enrich the depths, range and nuances of psychotherapy experiences for patients? How might we make it easier for patients who are having a difficult time to imagine preferable futures?

### Method: Participatory Action Research

The project aims to create spaces for individual and collective learning and healing through collaborative knowledge sharing and exercises among people from diverse perspectives and disciplines (Wan, 2022). The research activity utilized the components of action research, specifically planning, acting, observing, and reflecting, both in the research and design rounds (Lewin K., 1946). While it is crucial to consider how action research can shape the researcher's concepts and translate research outputs into design inputs, it is equally important to consider how participants can learn, relate to, and benefit from the research (Wan, 2022). As participatory action research invites participants to actively engage in the research process, it is intended that participants will feel a sense of ownership over the co-designed artifacts in the design probes. Additionally, through paying attention to their thoughts and emotions and expressing themselves through writing and art, participants may practice mindfulness techniques and feel creatively fulfilled (Chataway, 2010). During the design round, gathering feedback from the same participants in the research loop would be valuable for including them in shared decision-making about the next steps and future plans of the research. The priority of the research activities is to establish an inclusive environment that fosters personal and collective growth, and empowers participants to enact positive changes in their lives.

### Round One: The Thing From The Future

#### Objective

The aim of the activity was to engage a group of four individuals coming from diverse and historically underrepresented backgrounds in an imagination game called "The Thing From The Future" (Candy, 2018). The participants, ranging from 25 to 28 years of age, represent South Asian, Jewish, and biracial communities and have previously grappled with anxiety and depression. The purpose of the game was to kindle the

players' imaginations, compelling them to envisage plausible cultural and emotional landscapes in a preferable future (Candy, 2018). Moreover, the activity sought to investigate the efficacy of utilizing interactive prompts as a therapeutic tool and to appraise the therapeutic benefits of communal exploration and sharing of the players' intimate visions of their futures.



Figure 21: Participants playing “the thing from the future” game

## Game Overview

The game's goal is to stimulate cognitive activity by crafting contemplative depictions of theoretical artifacts from various close, intermediate, and remote tomorrows. In each cycle, participants individually create imaginative artifacts or scenarios. There are four types of cards. ARC cards are based on Dator’s Four Futures: continuation, discipline, collapse, transformation (Dator, Sweeney and Yee, 2022). TERRAIN cards describe the



milieu in which the object originates. OBJECT cards characterize its cultural and physical attributes. MOOD cards hint at the emotional response that it might elicit from a present-day observer. Players are tasked with composing a brief description of an object that meets the cues of the prompt (Candy, 2018).

## Results

During the exercise, some participants utilized it as a form of therapeutic journaling to connect with their emotions and aspirations. The structured prompts provided by the cards enabled the participants to relate to specific scenarios, places, and emotions, making it easier for them to process their thoughts and feelings. They wrote about their past, present, and future relationships with concepts such as 'awkwardness' and 'discipline'. Through their writing, one participant expressed a desire to attain a level of self-awareness and emotional regulation that would enable them to navigate the forces of shame and fear while remaining grounded when making important life decisions. These findings suggest that the interactive prompts provided by the activity can be a useful resource for demystifying present emotions and imagining 'experiential futures' (Candy, 2018).

## Round Two: Designing the Playbook

Action research enabled iterative cycles of reflection and action. In this loop of action research, the focus is on translating research insights into design decisions. Based on the findings from the first loop, it appears that interactive prompts provided by the activity can serve as a valuable tool for individuals seeking to explore and work through complex emotional experiences. Patients, therefore, should be offered guides that help them visualize specific futures and prompts that facilitate decision making. Through this exercise, I came to recognize the potential of game play in psychotherapy, as highlighted by Flanagan (2009), who proposed that "games, and the more general concept of 'play' not only provide outlets for entertainment but also function as means for creative expression, as instruments for conceptual thinking, or as tools to help examine or work through social issues?"

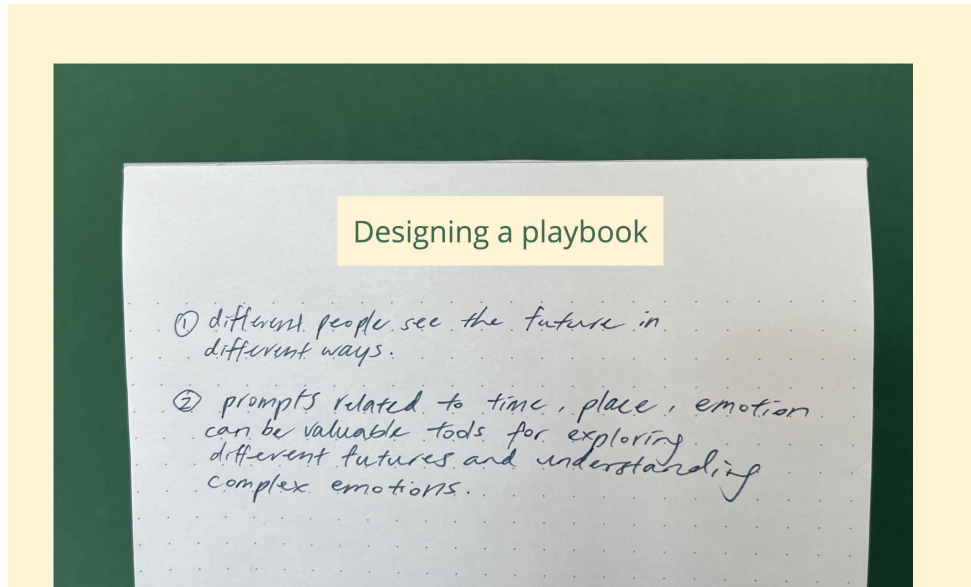


Figure 22: Designing a playbook

During the Design Futures module, it was observed that individuals perceive their futures differently, as illustrated by Lohman cones (Lohman, 2022). Thus, patients should be given the opportunity to steer the outcomes and craft their own preferable futures. As noted in the theoretical framework, the practice of mindfulness has been shown to be a conducive tool for individuals to gain greater control over their thoughts and emotions, enabling them to activate the reflective system rather than relying solely on the automatic system that often drives behavior.

Games are a valuable medium for facilitating conscious decision-making, allowing individuals to develop a sense of agency and take responsibility for managing their thoughts, emotions, and subsequent actions. Thus, a video game has been chosen as the medium for developing a self-guided interactive SPT.

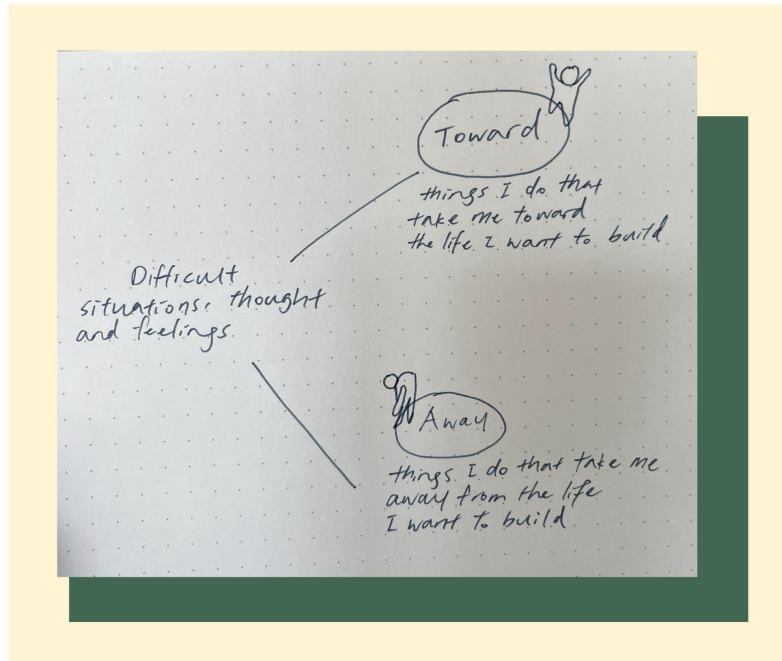


Figure 22: the Choice Point, adapted from “the Happiness Trap” book by Russ Harris

These design decisions led to the creation of a gameplay experience that allows the player to choose their own futures. Drawing from the Hero's Journey framework, players were presented with a series of decisions throughout each stage that had the potential to move them towards or away from their desired life path. These choices were influenced by the Choice Point exercise, which was informed by ACT principles focused on actions and commitment (Harris, 2022). To illustrate, in the initial phase of meeting their future self, players were taken through a diaspora story of immigration and survival, where they were faced with the option to rise to the occasion, leave, or contribute to worsening the situation. They are also invited to pre-select a future from Jim Dator's four futures: transformation, continuation, discipline and collapse (Dator, Sweeney and Yee, 2022). In the second phase: realm of adventure, players are invited to identify their values. They can further specify aspects of their preferable future: work, play, love and health. They navigate the diaspora story of displacement and clash of cultural and individual identity. Communicating needs while standing up for values is challenging, and players have to choose between self-kindness and self-judgment. The gameplay experience is designed to facilitate a sense of agency for players in determining their own future.

Through grounded theory and theoretical framework, the project examined that patients often struggle with making consistent life-enhancing choices, as they may feel

great resistance and discomfort towards change, leading to self-sabotage. This is particularly challenging due to the unconscious motivation to maintain the status quo. To rectify this, the gameplay is designed to guide patients through making choices that may not immediately lead to the life they want to build but ultimately help them arrive at their preferable future. The game's algorithm aims to help patients overcome their natural inclination towards resistance by offering a safe and supportive environment to explore their decision-making processes. Players can make choices that take them away from the life they want to build and still be able to arrive at their preferable future at the end of the game.

As the game design is based on principles of third wave CBT, motivational psychology and behavioral change, it aims to facilitate long-lasting positive change in the lives of patients. It also aims to bestow the futures thinking tools that are traditionally used by futurists and designers to the general public, making it easier for patients to materialize mysterious future narratives (Candy, 2018).

The aim of the Playbook Journey Map below is a preliminary attempt to encapsulate the gameplay experience and establish a framework to account for the varied choices players may encounter at different points within the game. It is important to note, however, that the Playbook Journey Map does not serve as a game decision tree diagram that explicitly outlines the underlying logic responsible for the five possible game endings: preferable future, transformation, continuation, discipline, and collapse. Instead, the development of a comprehensive logic tree will be a crucial component of the upcoming project phase.

# Playbook Journey Map

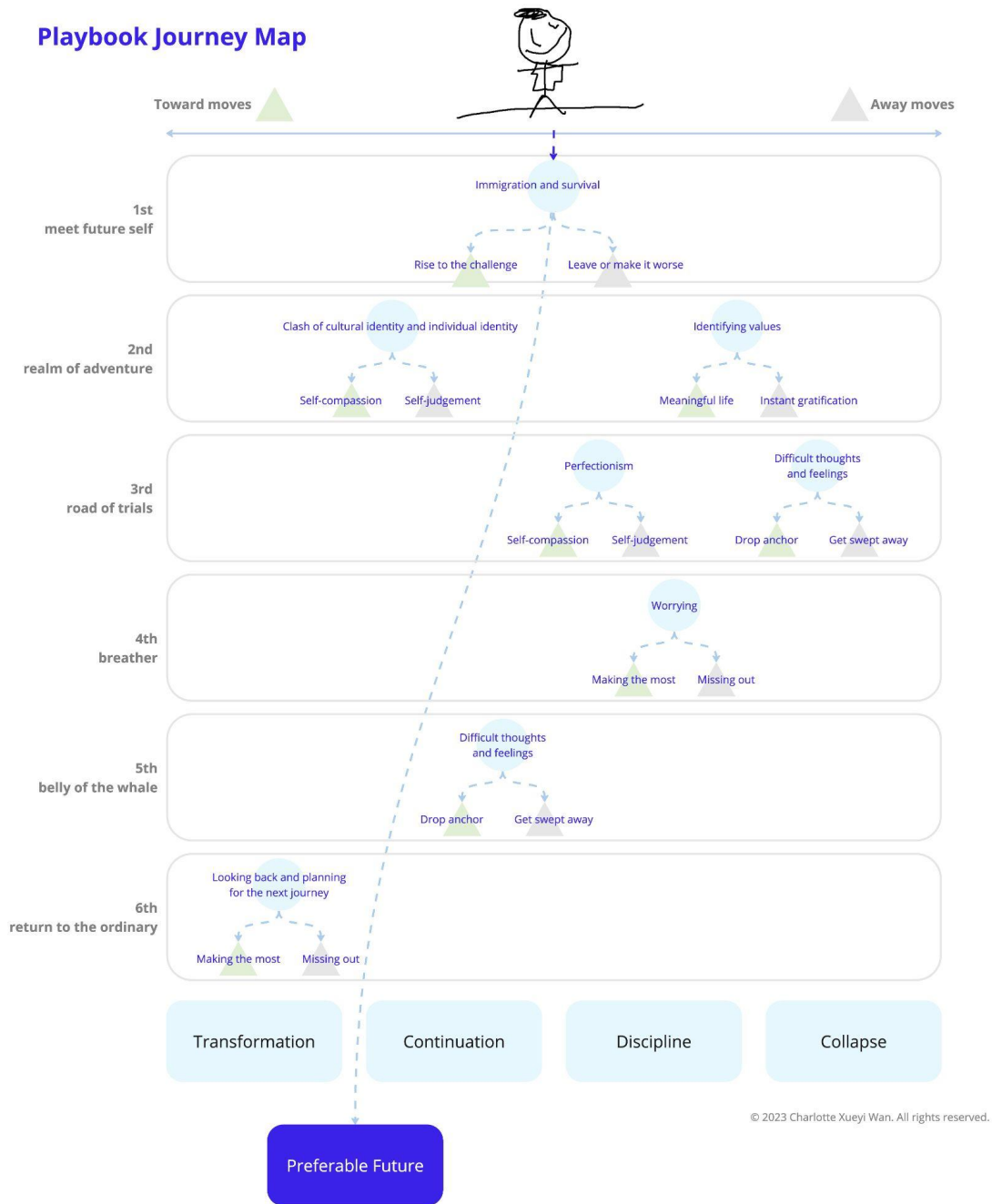


Figure 23: Playbook Journey Map. © 2023 Charlotte Xueyi Wan. All rights reserved.

# Reflections

## Overview

Working on the project has been a fortuitous journey. Through my close contact with a psychiatrist supervisor, I was able to gain a deep understanding of their perspectives and experiences regarding therapy and culture adaptations. As a member of marginalized groups, I engaged in researching the self and researching the others in relation to self through journaling, participant checking, and reflexive conversations with tutors, friends and supervisors (Milner, 2007). The former involved reflecting on my own relationship to PTSD, racial and cultural heritage, and the ways in which it influences my research and worldviews. The latter area of my cultural reflexivity involved examining the narratives of others, taking into consideration their comfort level with sharing intimate stories. I acknowledge that there was a degree of constraint and bias in both positions, which I will discuss in the following paragraphs.

## Limitations and biases

On one hand, literature review and my own reflexive process have been beneficial in the triangulation of data in research. However, it is also crucial to prevent stereotyping people of color or overgeneralize based on the literature review. I also tried to not let my own cultural background influence what I perceive in research. Some of the participants come from the same cultural background as me, and it is possible that I made assumptions about their experiences because of my own subjectivity in narrative inquiry.

Another potential source of bias in our study is the sample's composition. The participants were primarily recruited from my personal and professional contacts, which may limit the generalizability of my findings to other populations or healthcare settings. In the next research phase, I will continue reaching out to community clinics to address the bias. The study should also address the "digital inverse care law," ensuring that the groups are representative of the underprivileged groups that would need accessible therapy the most (Paddison, 2022). Moreover, the sample consisted of individuals who volunteered to participate in the study, which may have resulted in a selection bias, with more motivated or engaged participants being overrepresented in our sample.

It will be important to measure the efficacy of the intervention both qualitatively and quantitatively as a next step of the project. Concept testing is scheduled in the 'deliver' stage of the double diamond, which expands beyond the scope of the dissertation. The findings from concept testing may be influenced by social desirability bias.

Lastly, a limitation pertains to the suitability of the theme of intergenerational trauma or other traumatic experiences for a self-guided intervention. These topics may be sensitive and require professional mental health services to ensure that therapeutic experiences are safeguarded. While a psychiatrist supervisor reviewed the intervention's content, gathering additional feedback is crucial to ensure that the intervention is delightful and safe to the target population. Therefore, in the 'deliver' phase of the design process, it is important to seek feedback from participants and mental health professionals to evaluate the intervention's efficacy and improve its content.

# Future Considerations

## Further Research and Development

The next step in the development of a design prototype should incorporate the following components: guided psychotherapy that encompasses both individual and cultural levels, interactive experiences that allow for autonomy through storytelling and counter-storytelling, and future-oriented, value-driven visualization exercises inspired by futures design methods. These components are critical for promoting healing and empowering individuals and communities to envision a better future.

In terms of research methods, a mixed-methods approach could be used to evaluate the prototype. This approach would involve both quantitative measures, such as standardized psychological assessments, and qualitative data, such as participant interviews and focus groups. Specifically, tests such as PHQ-9 Depression Test Questionnaire and Generalized Anxiety Disorder Assessment (GAD-7) can be utilized to measure quality of care before and after intervention. A participatory action research approach could be employed to involve the community in the design and evaluation of the prototype.



Figure 24: heal, play, dream



The project's objective is to create environments and experiences for both individual and collective healing, playing, and dreaming. The third wave psychotherapy modalities have shown promise in building resilience and well-being through the use of value clarification as a therapeutic tool. However, an unresolved challenge has been the intention-behavior gap (Gollwitzer, 2009), which often hinders patients from achieving their goals. Incorporating futures thinking techniques through gameplay in tandem with ACT has lots of potential. By leveraging the engaging and immersive nature of gameplay, individuals can explore various potential futures, anticipate challenges, and develop concrete visions. It is my hope that the psychotherapy game can be a part of the foresight movement and contribute to the development of 'capacity for anticipation' (Candy, 2018), particularly in healthcare for marginalized groups when imagining feels like an immensely difficult thing to do.

# Appendices

## Potential application of psychotherapy skills

### 1st: meet future self

*Theme: Immigration and survival; Psychotherapy tools: Imagination and hope*

It can be beneficial to first address and challenge negative thought patterns before working towards envisioning a future self and setting achievable objectives. By identifying and challenging beliefs that may be contributing to a sense of hopelessness and despair, patients can become more aware of their own cognitive biases and can begin to break free from unhelpful thought patterns. This, in turn, can create greater psychological flexibility for patients to imagine a brighter future and set goals that align with their values and aspirations. For example, patients may hold beliefs such as "I will never be able to provide for my family" or "I am helpless in the face of the war in my home country." Patients can gain a stronger sense of control over their lives and feel more optimistic about their future by challenging their limiting beliefs and adopting more practical and empowering ones.

### 2nd: realm of adventure

*Theme: Clash of cultural identity and individual identity; Psychotherapy tools: bringing the unconscious into the conscious*

Patients can first benefit from becoming aware of beliefs that may be keeping them stuck in a cycle of cultural conflict and distress. For example, patients may hold beliefs such as "I must adhere to cultural norms to be accepted by my family" or "I cannot pursue my own desires without betraying my family." Patients can choose to challenge these thoughts and replace them with ones that are more flexible and empowering like "I can be true to myself and be accepted by my family." These new beliefs would require patients to work towards balancing their relationships with family members and their own values and desires. DBT's interpersonal effectiveness skills, specifically objective effectiveness, can help patients get what they want while maintaining a positive relationship with others. A patient who wants to pursue a career in music but faces pressure from their family to become a doctor can use open and honest communication to express their gratitude for their family's support while asserting their desire to pursue music. Encouraging patients to initiate these conversations is crucial, especially in cultures where filial piety is highly valued, and immigrant parents have

sacrificed a lot for their children. While having these conversations can be challenging, using new tools can help patients communicate their needs while standing up for their values. It's important to note that patients cannot control how their parents will respond, but they can feel positive about taking steps towards standing up for themselves.

### 3rd: road of trials

*Theme: Fear, discipline and perfectionism; Psychotherapy tools: Self compassion*

Through ACT, patients can learn to be more self-compassionate by practicing kind and supportive self-talk. This can help them acknowledge their perfectionistic tendencies by recognizing that failure and mistakes are a natural part of the learning process. They can also practice mindfulness to become more aware of their thoughts and feelings without judgment. Mindfulness can help them become more present in the moment and reduce anxiety related to the past or future. Cognitive defusion, another tool used in ACT, can help them challenge their all or nothing thinking patterns. They can learn to observe their thoughts as passing events rather than absolute truths, which can lead to greater flexibility and problem-solving ability.

### 4th: breather

*Theme: Being present; Psychotherapy tools: mindfulness*

Mindfulness practices such as progressive muscle relaxation, deep breathing, and guided imagery can help patients ease into relaxation and reduce anxiety. Loving kindness meditation can help individuals cultivate positive feelings towards themselves and others.

### 5th: belly of the whale

*Theme: Silence and Disconnection; Psychotherapy tools: self-acceptance and emotional resilience*

If a patient cannot talk to her family about her traumas and break through the culture of communicative silence, she can still use ACT techniques to work towards forgiveness. One such technique is cognitive defusion where she can separate herself from her thoughts and emotions and observe them without judgment. This can help her recognize that her family's silence and avoidance may be a result of their own

emotional struggles and limitations, rather than a reflection of her worthiness of love and acceptance. Another technique is values clarification, where she can identify her core values and use them as a guide to act in ways that align with her true self. This can help her focus on building meaningful connections with others who share her values, even if those connections are not with her family. Additionally, the "loving-kindness meditation" can help her release any feelings of anger or resentment towards her family and focus on moving forward. Through these techniques, she can work towards finding inner peace and acceptance, even in the absence of having difficult conversations.

As Bessel van der Kolk explains in "The Body Keeps the Score", it is not essential for a clinician to be aware of every aspect of a patient's traumatic experience. Rather, it is crucial for the patient to develop the capacity to withstand their emotional responses and acknowledge their own experiences. This process of self-acceptance and emotional resilience can be a gradual journey that may take several weeks, months, or even years.

## 6th: return to the ordinary

*Theme: preserving and reclaiming heritage*

*Psychotherapy tools: honoring the journey and preferable future*

Patients can integrate parts of their cultural heritage into their life in a way that feels authentic and meaningful to them. This can involve exploring and celebrating cultural traditions, values, and beliefs that are important to them. Furthermore, by honoring the path they took and recognizing how far they have come, patients can cultivate a sense of self-compassion and resilience in the face of challenges. In the final part of the hero's journey, patients are also invited to take a moment to reconnect with their values - both personal and cultural - that are important to them. They can use different value clarification exercises like "the Values Square" to imagine their preferable future that consists of four domains of life: work, love, play health (Harris, 2022). By committing to actions that align with those values, patients can create a sense of purpose and direction in their lives.

## Cultural Formulation Interview by APA DSM-05

The APA (American Psychiatric Association) holds rights to the interview script and offers the Cultural Formulation Interview for further research. The script was used during narrative inquiry interviews.

### Cultural Formulation Interview (CFI)

Supplementary modules used to expand each CFI subtopic are noted in parentheses.

#### GUIDE TO INTERVIEWER

INSTRUCTIONS TO THE INTERVIEWER ARE *ITALICIZED*.

*The following questions aim to clarify key aspects of the presenting clinical problem from the point of view of the individual and other members of the individual's social network (i.e., family, friends, or others involved in current problem). This includes the problem's meaning, potential sources of help, and expectations for services.*

#### *INTRODUCTION FOR THE INDIVIDUAL:*

I would like to understand the problems that bring you here so that I can help you more effectively. I want to know about **your** experience and ideas. I will ask some questions about what is going on and how you are dealing with it. Please remember there are no right or wrong answers.

### CULTURAL DEFINITION OF THE PROBLEM

#### CULTURAL DEFINITION OF THE PROBLEM

(Explanatory Model, Level of Functioning)

*Elicit the individual's view of core problems and key concerns.*

*Focus on the individual's own way of understanding the problem.*

*Use the term, expression, or brief description elicited in question 1 to identify the problem in subsequent questions (e.g., "your conflict with your son").*

*Ask how individual frames the problem for members of the social network.*

*Focus on the aspects of the problem that matter most to the individual.*

1. What brings you here today?

*IF INDIVIDUAL GIVES FEW DETAILS OR ONLY MENTIONS SYMPTOMS OR A MEDICAL DIAGNOSIS, PROBE:*

People often understand their problems in their own way, which may be similar to or different from how doctors describe the problem. How would *you* describe your problem?

2. Sometimes people have different ways of describing their problem to their family, friends, or others in their community. How would you describe your problem to them?

3. What troubles you most about your problem?

### CULTURAL PERCEPTIONS OF CAUSE, CONTEXT, AND SUPPORT

#### CAUSES

(Explanatory Model, Social Network, Older Adults)

*This question indicates the meaning of the condition for the individual, which may be relevant for clinical care.*

*Note that individuals may identify multiple causes, depending on the facet of the problem they are considering.*

*Focus on the views of members of the individual's social network. These may be diverse and vary from the individual's.*

4. Why do you think this is happening to you? What do you think are the causes of your [PROBLEM]?

*PROMPT FURTHER IF REQUIRED:*

Some people may explain their problem as the result of bad things that happen in their life, problems with others, a physical illness, a spiritual reason, or many other causes.

5. What do others in your family, your friends, or others in your community think is causing your [PROBLEM]?

## Market segment

### 1: Customers

- Market attractiveness
- Industry
- Customer segments

Total serviceable market (TSM)

# 17.3%

Asian Americans have 17.3% lifetime prevalence for mental illness; 8.5% for Chinese- Canadians

Estimated Asian American spending on mental health

# \$20.16 billion

Nearly 1 in 5 Americans has some type of mental health condition. Around \$280 billion were spent on mental health services in 2020, and the number has likely increased because of covid-19. In 2020, Asians make up 7.2% of the U.S. population.

### Asian Americans were the fastest-growing racial or ethnic group in the U.S. from 2000 to 2019 ...

U.S. population change by race and ethnicity, in thousands

	2019	2000	Change '00-'19	% Change '00-'19
<b>Asian</b>	18,906	10,469	8,437	81%
<b>Hispanic</b>	60,572	35,662	24,910	70
<b>NHPI</b>	596	370	226	61
<b>Black</b>	41,147	34,406	6,742	20
<b>White</b>	197,310	195,702	1,608	1
<b>Total</b>	328,240	282,162	46,077	16

# Industry: Competitive Landscape

## Innovations in Therapy

	CBT based apps					
	Reflectly	MoodMission	Bloom	Youper	Shine	CBT Thought Diary
Main Feature	Journaling	Users can complete self-care tasks	15 mins videos of guided breathing exercises, discussions and meditations	Chatbot	Meditations & chatbot	Identify your own thought distortions
Clinical effectiveness	👎	👎	✓	👎	👎	Maybe
Notes	<p>Rigid structure of emotions recording seemed to put up walls around what I actually wanted to write down. How I was feeling at the time rarely conformed to the options that the app gave me.</p> <p>When I looked back at my reflections, I don't feel like I am seeing a pattern, I see a version of me with all the dimensions sucked out.</p> <p>Nothing personal and nothing intelligent. Loosely incentivize users to catalogue their thoughts with no one but a machine on the other end.</p>	<p>It starts with comprehensive survey. It feels evidence based. It gives me a list of self-care things I can do.</p> <p>"It's like your friend asking how you tried going for a jog when you tell him that you're depressed"</p>	<p>Pre-recorded therapists in the videos allow the app to speak to me more meaningfully.</p>	<p>App's responses automated and programmed in.</p> <p>pro - it pushes you to talk about yourself and your emotions.</p> <p>Sometimes it's useful to spell out exactly where anxiety is coming from after a few weeks. It ran out of things for me to do. It doesn't even feel like a chatbot, just scripted series of text messages.</p> <p>The CBT site activities the bot offers are much better accompaniment for in-person therapy sessions rather than a totally self-guided program.</p> <p>It's a vaguely empty experience.</p>	<p>It is difficult to discover new meditations or to find the meditation for what I am going through.</p> <p>The chatbot has the same problem. App's responses automated and programmed in, and it does not feel like the app is understanding what I am saying.</p>	<p>It is the only feature of the app. Simply identifying thought distortions should only be a component of PTSD treatment as well as other.</p>

### Competitive Landscape

## Insights & Questions

	CBT based apps		
<p><b>CBT</b></p> <ul style="list-style-type: none"> <li>Focus on symptom reduction</li> <li>It is straightforward to generate data from CBT, most clinical research is looking to pull data from a treatment.</li> <li>Most effective - CBT followed by psychoanalysis</li> <li>People just need to rework their internal "if thens" into something more productive</li> <li>CBT is not always productivity focused, but the landscape of the app store often is.</li> </ul> <p><b>Questions ??</b></p> <ul style="list-style-type: none"> <li>What methods from CBT can we integrate into our program?</li> <li>Is there a timeline we should consider in the treatment plan?</li> <li>In what ways does CBT help with regulating emotions?</li> </ul> <p><b>Creating a widely accessible program</b></p> <ul style="list-style-type: none"> <li>Even though the apps above are way more affordable than paying for mental health care and on top of that paying for a therapist, the apps are still not free and can be considered expensive to some people.</li> <li>What is more important to us? To create a program that can scale or to create something free of charge for the people?</li> </ul>	<p><b>The Big Question ??</b></p> <ul style="list-style-type: none"> <li>Even in the middle of the 20th century, scientists were thinking far beyond automated diaries. Would it ever be possible to create a machine that could cure patients in the complicated field of psychology?</li> </ul> <p><b>The Turing Test (landmark in human computer communication)</b></p> <ul style="list-style-type: none"> <li>The Turing Test is a method of inquiry in artificial intelligence (AI) for determining whether or not a computer is capable of thinking like a human being. The test is named after Alan Turing, the founder of the Turing Test and an English computer scientist, cryptanalyst, mathematician and theoretical biologist.</li> <li>Computers did not have to get smarter - humans just have to find a therapy that worked like a machine.</li> </ul> <p><b>ELIZA - the first chatbot</b></p> <ul style="list-style-type: none"> <li>parody of Person Centered Therapy by Carl Rogers.</li> <li>the idea is that the client already has everything they need to help themselves, and they just need some prompting to say it out loud</li> <li>Eliza just repeated back what people were saying. People liked the anonymity.</li> <li>Eliza would just listen, she would never judge and never talk about herself</li> </ul>	<p><b>Thought Distortions</b></p> <ul style="list-style-type: none"> <li>Do patients with PTSD experience thought distortions in addition to their core trauma symptoms?</li> <li>Do thought distortions help with emotion regulation?</li> </ul>	





# Consent Form



## CONSENT TO PARTICIPATE IN RESEARCH

*(one copy of this form should be given to the participant and one retained by the researcher)*

Dear Participant

You are invited to participate in a research study conducted by Charlotte Xueyi Wan, from the School of Design at the Royal College of Art and Imperial College London as a part of my dissertation research. Your participation in this study is entirely voluntary. Please read the information below and ask questions about anything you do not understand, before deciding whether or not to participate.

You have been asked to participate in this study because of your knowledge of Third Wave Cognitive Behavioral Therapies or your experience in self-guided psychotherapy.

### PURPOSE OF THE STUDY

This study aims to address the issue of limited access to mental health care for underserved communities. Through the implementation of a semi-autonomous psychotherapy skills program that does not rely on conventional talk therapy, the study aims to mitigate the barriers to accessing mental health care that these communities often face, including language barriers, stigma, lack of culturally competent providers, lack of insurance or low income.

My research aims to:

- To provide a way for people with mental health needs to follow a self-guided therapy program that includes activities like visualizations, affirmations, self-reflections, meditations, and mindfulness exercises
- To increase patient access to self-guided psychotherapy intervention
- To create a system in place for people to learn and practice skills in order to prevent relapses in their environment

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- To find out the actions and skills people currently practice to take care of their mental health needs and whether they have been effective
- To understand or find a gap in previous knowledge on the topic of self-directed therapy
- To find out what is known and not known about the recovery from depression or anxiety

#### PARTICIPATION

If you volunteer to participate in this study, you will be asked to do the following things:

- To provide feedback on interactive therapy concepts and prototypes
- To share your experiences on the topic of self-directed therapy

The research is conducted through interviews either on zoom or in person with psychotherapists and people who would like to take part in self-guided therapy. Interviews with game developers might also be part of the research to determine whether the intervention is feasible through different game engines.

The length of time for the interviews on zoom or in person will be roughly around one hour.

A recording will be made of the interview which will not be shared and is merely an aide memoire during the writing up of the research.

#### POTENTIAL RISKS AND DISCOMFORTS

There are no risks or discomforts expected.

In the event of physical and/or mental injury resulting from participation in this research project, the Royal College of Art does not provide any medical, hospitalisation or other insurance for participants in this research study, nor will the Royal College of Art provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.

#### POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The subject will benefit from participation by engaging in Interactive Third Wave Cognitive Behavioral Therapies based exercises like visualizations, affirmations, self-reflections, meditations, and mindfulness exercises. The research aims to contribute to society by increasing patient access to mental health care.

#### CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of data being kept on personal computers and personal iCloud account.

The information will not be released to any other party

The interviews may be recorded with permission but recordings will not be used by anyone but myself.

#### PARTICIPATION AND WITHDRAWAL

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits to which you are otherwise entitled. You may also refuse to answer any questions you do not want to answer. There is no penalty if you withdraw from the study.

#### RIGHTS OF RESEARCH SUBJECTS

The Royal College of Art Research Ethics Committee has reviewed my request to conduct this project. If you have any concerns about your rights in this study, please contact them at [ethics@rca.ac.uk](mailto:ethics@rca.ac.uk)

#### PARTICIPANT CONSENT:

I, \_\_\_\_\_, have read the information above and all queries have been answered to my satisfaction. I agree to voluntarily participate in this research and give my consent freely. I understand that I can withdraw my participation from the project up to the point of publication, without penalty, and do not have to give any reason for withdrawing.

I understand that all information gathered will be stored securely, and my opinions will be accurately represented. Any data in which I can be clearly identified will be used in the public domain only with my consent.

Participant Signature.....

Researcher Signature.....

Date: .....

---

Complaints Procedure:

This project follows the guidelines laid out by the Royal College of Art Research Ethics Policy.

If you have any questions, please speak with the researcher. If you have any concerns or a complaint about the manner in which this research is conducted, please contact the RCA Research Ethics Committee by emailing [ethics@rca.ac.uk](mailto:ethics@rca.ac.uk) or by sending a letter addressed to:

The Research Ethics Committee  
Royal College of Art  
Kensington Gore  
London  
SW7 2EU

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